# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| **On Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-1 | B-1-13 | 6/23/00 | TR | ARI | 13 | 27.00 | – | | – | – | 0.0012 | U | 0.0012 | U | 0.0012 | U | 0.0024 | U | 0.0012 | U | 0.0012 | U | **0.0021** | | 0.0012 | U | 0.0012 | U |
| B-2 | B-2-6.5 | 6/23/00 | TR | ARI | 6.5 | 33.50 | – | | – | – | 0.0011 | U | 0.0011 | U | 0.0011 | U | 0.0022 | U | **0.017** | | **0.0020** | | **0.011** | | 0.0011 | U | 0.0011 | U |
| | B-2-11 | 6/23/00 | TR | ARI | 11 | 29.00 | – | | – | – | 0.0012 | U | 0.0012 | U | 0.0012 | U | 0.0024 | U | **0.92** | | **0.085** | | **0.64** | | **0.0037** | | 0.0012 | U |
| | B-2-16 | 6/23/00 | TR | ARI | 16 | 24.00 | – | | – | – | 0.0011 | U | 0.0011 | U | 0.0011 | U | 0.0022 | U | **0.049** | | **0.0011** | | **0.0075** | | 0.0011 | U | 0.0011 | U |
| B-3 | B-3-12 | 6/23/00 | TR | ARI | 12 | 28.00 | – | | – | – | 0.0013 | U | 0.0013 | U | 0.0013 | U | 0.0026 | U | 0.0013 | U | 0.0013 | U | **0.0016** | | 0.0013 | U | 0.0013 | U |
| B-5 | B-5-10 | 6/23/00 | TR | ARI | 10 | 30.00 | – | | – | – | 0.0011 | U | 0.0011 | U | 0.0011 | U | 0.0022 | U | **0.0051** | | 0.0011 | U | **0.0021** | | 0.0011 | U | 0.0011 | U |
| | B-5-11.5 | 6/23/00 | TR | ARI | 11.5 | 28.50 | – | | – | – | 0.0012 | U | 0.0012 | U | 0.0012 | U | 0.0024 | U | **0.12** | | **0.0088** | | **0.013** | | 0.0012 | U | 0.0012 | U |
| B-6 | B-6-6 | 6/24/00 | TR | ARI | 6 | 34.00 | – | | – | – | – | | – | | – | | – | | **0.0085** | | **0.0014** | | **0.0021** | | 0.0012 | U | 0.0012 | U |
| | B-6-12 | 6/24/00 | TR | ARI | 12 | 28.00 | – | | – | – | – | | – | | – | | – | | **0.0067** | | **0.0026** | | **0.0047** | | 0.0012 | U | 0.0012 | U |
| | B-6-18 | 6/24/00 | TR | ARI | 18 | 22.00 | – | | – | – | – | | – | | – | | – | | **2.3** | | **0.0078** | | **0.0031** | | 0.0013 | U | 0.0013 | U |
| B-7 | B-7-6 | 6/24/00 | TR | **ARI** | 6 | 34.00 | – | | – | – | – | | – | | – | | – | | **0.031** | | **0.0029** | | **0.0052** | | 0.0012 | U | 0.0012 | U |
| B-8 | B-8-4 | 6/24/00 | TR | ARI | 4 | 36.00 | – | | – | – | – | | – | | – | | – | | **0.092** | | **0.0006** | | **0.0019** | | 0.0011 | U | 0.0011 | U |
| | B-8-8 | 6/24/00 | TR | ARI | 8 | 32.00 | – | | – | – | – | | – | | – | | – | | **1.4** | | **0.017** | | **0.021** | | 0.0011 | U | 0.0011 | U |
| B-9 | B-9-4 | 6/24/00 | TR | ARI | 4 | 36.00 | – | | – | – | – | | – | | – | | – | | **170** | | 1.6 | U | 1.6 | U | 1.6 | U | 1.6 | U |
| | B-9-8 | 6/24/00 | TR | ARI | 8 | 32.00 | – | | – | – | – | | – | | – | | – | | **4.8** | | **0.13** | | **0.21** | | **0.0022** | | 0.0012 | U |
| B-10 | B-10-12 | 6/24/00 | TR | ARI | 12 | 28.00 | – | | – | – | – | | – | | – | | – | | **0.017** | | **0.0014** | | **0.0061** | | 0.0011 | U | 0.0011 | U |
| B-201 | G-201-10 | 6/19/17 | PES | ESC | 10 | 29.90 | – | | – | – | 0.00120 | U | 0.00601 | U | 0.00120 | U | 0.00361 | U | **0.0679** | | **0.00638** | | **0.00298** | | 0.00120 | U | 0.00120 | U |
| | G-201-30 | 6/19/17 | PES | ESC | 30 | 9.90 | – | | – | – | 0.00113 | U | 0.00567 | U | 0.00113 | U | 0.00340 | U | **0.00264** | | 0.00113 | U | **0.0784** | | **0.00761** | | 0.00113 | U |
| | G-201-35 | 6/19/17 | PES | ESC | 35 | 4.90 | – | | – | – | 0.00116 | U | 0.00580 | U | 0.00116 | U | 0.00348 | U | **0.00471** | | **0.00134** | | **0.0149** | | **0.00200** | | 0.00116 | U |
| B-202 | G-202-5 | 6/19/17 | PES | ESC | 5 | 34.17 | 0.119 | U | – | – | 0.00119 | U | 0.00595 | U | 0.00119 | U | 0.00357 | U | **0.108** | | **0.00580** | | 0.00119 | U | 0.00119 | U | 0.00119 | U |
| | G-202-20 | 6/19/17 | PES | ESC | 20 | 19.17 | – | | – | – | 0.00119 | U | 0.00594 | U | 0.00119 | U | 0.00356 | U | **0.0632** | | **0.00503** | | 0.00119 | U | 0.00119 | U | 0.00119 | U |
| | G-202-50 | 6/19/17 | PES | ESC | 50 | -10.83 | – | | – | – | 0.00132 | U | 0.00662 | U | 0.00132 | U | 0.00397 | U | **0.00163** | | 0.00132 | U | 0.00132 | U | 0.00132 | U | 0.00132 | U |
| B-203 | G-203-5 | 6/20/17 | PES | ESC | 5 | 34.18 | **168** | | – | – | **0.0358** | | **0.0272** | | **0.0745** | | **0.0494** | | 0.00115 | U | 0.00115 | U | 0.00115 | U | 0.00115 | U | 0.00115 | U |
| | G-203-25 | 6/20/17 | PES | ESC | 25 | 14.18 | **0.174** | | – | – | 0.00117 | U | 0.00586 | U | 0.00117 | U | 0.00351 | U | **0.00241** | | 0.00117 | U | 0.00117 | U | 0.00117 | U | 0.00117 | U |
| | G-203-40 | 6/20/17 | PES | ESC | 40 | -0.82 | 2.33 | U | – | – | **0.00561** | | 0.00561 | U | **0.00299** | | **0.00719** | | **0.910** | | **0.0674** | | **0.168** | | **0.00197** | | **0.0438** | |
| | G-203-50 | 6/20/17 | PES | ESC | 50 | -10.82 | 0.216 | U | – | – | 0.00112 | U | 0.00560 | U | 0.00112 | U | 0.00336 | U | **0.903** | | **0.0481** | | **0.136** | | 0.00112 | U | **0.00337** | |
| | G-203-80 | 6/20/17 | PES | ESC | 80 | -40.82 | – | | – | – | 0.00110 | U | 0.00548 | U | 0.00110 | U | 0.00329 | U | 0.00110 | U | 0.00110 | U | 0.00110 | U | 0.00110 | U | 0.00110 | U |
| B-204 | G-204-20 | 6/20/17 | PES | ESC | 20 | 19.80 | – | | – | – | 0.00116 | U | 0.00579 | U | 0.00116 | U | 0.00347 | U | 0.00116 | U | 0.00116 | U | 0.00116 | U | 0.00116 | U | 0.00116 | U |
| | G-204-40 | 6/20/17 | PES | ESC | 40 | -0.20 | – | | – | – | 0.00113 | U | 0.00563 | U | 0.00113 | U | 0.00338 | U | **0.0318** | | **0.00545** | | **2.60** | | **0.00485** | | **0.981** | |
| | G-204-45 | 6/20/17 | PES | ESC | 45 | -5.20 | – | | – | – | 0.00121 | U | 0.00606 | U | 0.00121 | U | 0.00364 | U | **0.0315** | | **0.0101** | | **16.7** | | **0.00714** | | **2.94** | |
| B-205 | B-205-10 | 8/30/17 | PES | ESC | 10 | 30.28 | **274** | **q** | – | – | **0.304** | | **0.372** | **J** | **4.74** | | **6.02** | | 0.0333 | U | 0.0336 | U | 0.0283 | U | 0.0318 | U | 0.0351 | U |
| | B-205-55 | 8/30/17 | PES | ESC | 55 | -14.72 | 0.0396 | U | – | – | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | **0.0625** | | **0.00923** | | **0.0155** | | 0.000308 | U | **0.00562** | |
| | B-205-65 | 8/30/17 | PES | ESC | 65 | -24.72 | 0.0359 | U | – | – | 0.000286 | U | 0.000460 | U | 0.000314 | U | 0.000739 | U | **0.0296** | | **0.00582** | | **0.00390** | | 0.000280 | U | **0.000378** | **J** |
| | B-205-75 | 8/30/17 | PES | ESC | 75 | -34.72 | – | | – | – | 0.000289 | U | 0.000465 | U | 0.000318 | U | 0.000748 | U | **0.00308** | **J** | **0.000399** | **J** | **0.000585** | **J** | 0.000283 | U | 0.000312 | U |
| | B-904-50 | 8/30/17 | PES | ESC | 75 (dup) | -34.72 | – | | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000749 | U | **0.00954** | **J** | **0.00234** | | **0.00170** | | 0.000283 | U | 0.000312 | U |
| B-206 | B-206-15 | 8/14/17 | PES | ESC | 15 | 24.10 | **0.243** | | – | – | 0.00777 | U | 0.0124 | U | 0.00854 | U | 0.0200 | U | **0.0715** | | **0.00831** | **J** | **0.306** | | **0.00825** | **J** | 0.00838 | U |
| | B-206-30 | 8/14/17 | PES | ESC | 30 | 9.10 | **1.32** | **J** | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **0.0522** | | **0.0289** | | **12.6** | | **0.00230** | | **0.124** | |
| | B-206-40 | 8/14/17 | PES | ESC | 40 | -0.90 | 0.0358 | U | – | – | 0.000285 | U | 0.000459 | U | 0.000314 | U | 0.000738 | U | **0.000306** | **J** | 0.000295 | U | **0.00879** | **J** | 0.000279 | U | 0.000308 | U |
| | B-206-49 | 8/14/17 | PES | ESC | 49 | -9.90 | **4.54** | **J** | – | – | 0.000308 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | **17.2** | | **2.28** | | **6.41** | | **0.0132** | | **0.154** | |
| | B-206-52 | 8/14/17 | PES | ESC | 52 | -12.90 | 0.0370 | U | – | – | 0.000295 | U | 0.000474 | U | 0.000324 | U | 0.000762 | U | **0.0483** | | **0.00790** | **J** | 0.00642 | U | 0.000288 | U | **0.000383** | **J** |
| | B-206-56 | 8/14/17 | PES | ESC | 56 | -16.90 | **1.01** | **J** | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **9.95** | **J** | **2.16** | | **0.140** | | 0.000290 | U | **0.000558** | **J** |
| | B-206-59 | 8/14/17 | PES | ESC | 59 | -19.90 | 0.0353 | U | – | – | 0.000281 | U | 0.000451 | U | 0.000309 | U | 0.000726 | U | **0.00866** | **J** | **0.00248** | | **0.00686** | | 0.000275 | U | **0.000368** | **J** |
| | B-206-70 | 8/14/17 | PES | ESC | 70 | -30.90 | **1.10** | **J** | – | – | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000760 | U | 0.000301 | UJ | 0.000304 | U | **0.00201** | | 0.000288 | U | 0.000317 | U |
| | B-206-80 | 8/14/17 | PES | ESC | 80 | -40.90 | **0.988** | **J** | – | – | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000761 | U | **0.00283** | **J** | 0.000304 | U | **0.000647** | **J** | 0.000288 | U | **0.000386** | **J** |
| B-207 | B-207-30 | 8/25/17 | PES | ESC | 30 | 8.51 | 0.0385 | U | – | – | 0.00767 | U | 0.0123 | U | 0.00843 | U | 0.0198 | U | **0.109** | | **0.0373** | | **0.0557** | | 0.00750 | U | 0.00827 | U |
| | B-207-41 | 8/25/17 | PES | ESC | 41 | -2.49 | **2.24** | | – | – | 0.000306 | U | 0.000491 | U | 0.000336 | U | 0.000790 | U | **0.00152** | | 0.000316 | U | **6.93** | | **0.0224** | | **0.428** | |
| | B-207-49 | 8/25/17 | PES | ESC | 49 | -10.49 | **0.727** | | – | – | **0.000397** | **J** | 0.000484 | U | 0.000331 | U | 0.000779 | U | **0.0325** | | **0.00590** | | **2.47** | | **0.00359** | | **0.0261** | |
| | B-207-55 | 8/25/17 | PES | ESC | 55 | -16.49 | **2.49** | | – | – | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | **0.0859** | | **0.871** | | **0.581** | | **0.0212** | | **0.00887** | |
| | B-207-60 | 8/25/17 | PES | ESC | 60 | -21.49 | 0.0361 | U | – | – | 0.000287 | U | 0.000462 | U | 0.000316 | U | 0.000743 | U | 0.000294 | U | 0.00743 | U | 0.00626 | U | 0.000281 | U | 0.000310 | U |
| | B-207-70 | 8/25/17 | PES | ESC | 70 | -31.49 | 0.968 | U | – | – | 0.000308 | U | 0.000496 | U | 0.000339 | U | 0.000797 | U | 0.000315 | U | 0.00797 | U | 0.00671 | U | 0.000301 | U | 0.000332 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-207 | B-207-80 | 8/25/17 | PES | ESC | 80 | -41.49 | **11.7** | **z** | – | – | 0.000297 | U | **0.000550** | **J** | 0.000327 | U | 0.000769 | U | **173** | | **1.23** | | **0.990** | | **0.000601** | **J** | **0.00558** | |
| (continued) | B-207-90 | 8/25/17 | PES | ESC | 90 | -51.49 | **0.181** | | – | – | 0.00742 | U | 0.0119 | U | 0.00815 | U | 0.0191 | U | **5.42** | | **0.462** | | **0.311** | | 0.00725 | U | 0.00800 | U |
| B-208 | B-208-20 | 8/24/17 | PES | ESC | 20 | 18.80 | – | | – | – | 0.000319 | U | 0.000513 | U | 0.000351 | U | 0.000825 | U | 0.00816 | U | **0.000689** | **J** | **0.0257** | | **0.000708** | **J** | **0.00270** | |
| | B-208-35 | 8/24/17 | PES | ESC | 35 | 3.80 | – | | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000760 | U | **0.0109** | **J** | **0.00162** | | **0.160** | | **0.00656** | | **0.00719** | |
| | B-901-50 | 8/24/17 | PES | ESC | 35 (dup) | 3.80 | – | | – | – | 0.000305 | U | 0.000491 | U | 0.000336 | U | 0.000789 | U | **0.407** | **J** | **0.00118** | | **0.152** | | **0.00577** | | **0.00719** | |
| | B-208-50 | 8/24/17 | PES | ESC | 50 | -11.20 | – | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000771 | U | **0.00150** | | 0.000308 | U | **0.0739** | | **0.00455** | | 0.000321 | U |
| | B-208-60 | 8/24/17 | PES | ESC | 60 | -21.20 | – | | – | – | **0.000440** | **J** | 0.000483 | U | 0.000331 | U | 0.000777 | U | 0.000307 | U | 0.000311 | U | **0.000685** | **J** | 0.000294 | U | 0.000324 | U |
| | B-208-70 | 8/24/17 | PES | ESC | 70 | -31.20 | – | | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | 0.000308 | U | 0.000312 | U | **0.000316** | **J** | 0.000295 | U | 0.000325 | U |
| | B-208-80 | 8/24/17 | PES | ESC | 80 | -41.20 | – | | – | – | 0.000334 | U | 0.000537 | U | 0.000367 | U | 0.000864 | U | 0.000341 | U | 0.000345 | U | 0.000291 | U | 0.000327 | U | 0.000360 | U |
| B-209 | B-209-20 | 8/25/17 | PES | ESC | 20 | 18.97 | – | | – | – | 0.000314 | U | 0.000504 | U | 0.000345 | U | 0.000811 | U | **0.000424** | **J** | **0.000587** | **J** | **0.0174** | | **0.000402** | **J** | **0.00168** | |
| | B-209-35 | 8/25/17 | PES | ESC | 35 | 3.97 | – | | – | – | 0.000288 | U | 0.000464 | U | 0.000317 | U | 0.000746 | U | **0.00682** | | **0.00119** | | **0.0508** | | **0.000840** | **J** | **0.00915** | |
| | B-209-50 | 8/25/17 | PES | ESC | 50 | -11.03 | – | | – | – | 0.000352 | U | 0.000566 | U | 0.000387 | U | 0.000911 | U | 0.000360 | U | 0.000364 | U | 0.000307 | U | 0.000344 | U | 0.000380 | U |
| | B-209-60 | 8/25/17 | PES | ESC | 60 | -21.03 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | 0.000317 | U | 0.000320 | U | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| | B-209-70 | 8/25/17 | PES | ESC | 70 | -31.03 | – | | – | – | 0.000288 | U | 0.000462 | U | 0.000316 | U | 0.000744 | U | **0.000322** | **J** | 0.000297 | U | 0.000323 | U | 0.000281 | U | 0.000310 | U |
| | B-209-75 | 8/25/17 | PES | ESC | 75 | -36.03 | – | | – | – | 0.000286 | U | 0.000460 | U | 0.000315 | U | 0.000740 | U | 0.000293 | U | 0.000296 | U | 0.000249 | U | 0.000280 | U | 0.000309 | U |
| | B-209-80 | 8/25/17 | PES | ESC | 80 | -41.03 | – | | – | – | 0.000310 | U | 0.000499 | U | 0.000341 | U | 0.000802 | U | 0.000317 | U | 0.000321 | U | **0.00106** | **J** | 0.000303 | U | 0.000334 | U |
| B-210 | B-210-6 | 8/21/17 | PES | ESC | 6 | 33.38 | – | | – | – | 0.000318 | U | 0.000512 | U | 0.000350 | U | 0.000823 | U | **0.0313** | | **0.00234** | | **0.000287** | **J** | 0.000311 | U | 0.000343 | U |
| | B-210-15 | 8/21/17 | PES | ESC | 15 | 24.38 | 0.919 | U | – | – | 0.00731 | U | 0.0117 | U | 0.00804 | U | 0.0189 | U | **0.0730** | | **0.0647** | | 0.00637 | U | 0.00715 | U | 0.00789 | U |
| | B-210-20 | 8/21/17 | PES | ESC | 20 | 19.38 | 0.0378 | U | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | 0.000307 | U | 0.000311 | U | **0.00185** | | 0.000294 | U | **0.000499** | **J** |
| | B-210-35 | 8/21/17 | PES | ESC | 35 | 4.38 | 0.0391 | U | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | **0.00789** | | **0.00300** | | **0.00950** | | 0.000305 | U | 0.000336 | U |
| | B-210-46 | 8/21/17 | PES | ESC | 46 | -6.62 | **0.164** | | – | – | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000760 | U | **0.000912** | **J** | **0.000376** | **J** | **3.27** | | **0.00790** | | **0.00182** | **J** |
| | B-210-60 | 8/22/17 | PES | ESC | 60 | -20.62 | 0.910 | U | – | – | 0.00724 | U | 0.0116 | U | 0.00796 | U | 0.0187 | U | 0.00741 | U | 0.00749 | U | 0.00631 | U | 0.00708 | U | 0.00781 | U |
| | B-210-70 | 8/22/17 | PES | ESC | 70 | -30.62 | 0.0366 | U | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000753 | U | 0.000298 | U | 0.000301 | U | **0.0115** | | 0.000285 | U | 0.000314 | U |
| | B-210-80 | 8/22/17 | PES | ESC | 80 | -40.62 | 0.0374 | U | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000771 | U | 0.000305 | U | 0.000308 | U | **0.000500** | **J** | 0.000292 | U | **0.000485** | **J** |
| | B-900-20 | 8/22/17 | PES | ESC | 80 (dup) | -40.62 | 0.0403 | U | – | – | 0.000321 | U | 0.000515 | U | 0.000353 | U | 0.000829 | U | 0.000328 | U | 0.000331 | U | **0.000837** | **J** | 0.000314 | U | 0.000346 | U |
| B-211 | B-211-20 | 8/17/17 | PES | ESC | 20 | 19.75 | – | | – | – | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | **0.0153** | | **0.0202** | | **0.0282** | | **0.00109** | **J** | **0.000723** | **J** |
| | B-211-35 | 8/17/17 | PES | ESC | 35 | 4.75 | – | | – | – | 0.000304 | U | 0.000489 | U | 0.000334 | U | 0.000786 | U | **0.000805** | **J** | 0.000314 | U | **0.00104** | **J** | 0.000297 | U | **0.000539** | **J** |
| | B-211-50 | 8/17/17 | PES | ESC | 50 | -10.25 | – | | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000755 | U | **0.0235** | | 0.000302 | U | **0.0189** | | **0.000512** | **J** | **0.00127** | |
| | B-211-57 | 8/17/17 | PES | ESC | 57 | -17.25 | – | | – | – | 0.000318 | U | 0.000512 | U | 0.000350 | U | 0.000823 | U | **0.0294** | **J** | **0.00212** | | **0.0830** | | **0.00171** | | **0.00600** | |
| | B-211-60 | 8/17/17 | PES | ESC | 60 | -20.25 | – | | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000805 | U | **0.162** | | **0.000907** | **J** | **4.99** | | **0.0599** | | **1.15** | |
| | B-211-65 | 8/18/17 | PES | ESC | 65 | -25.25 | – | | – | – | 0.000305 | U | **0.00201** | **J** | 0.000335 | U | 0.000788 | U | **7.42** | | **1.15** | | **5.58** | | **0.0110** | | **0.0421** | |
| | B-211-70 | 8/18/17 | PES | ESC | 70 | -30.25 | – | | – | – | 0.162 | U | 0.260 | U | 0.177 | U | 0.418 | U | **46.1** | | **2.88** | | **3.96** | | 0.158 | U | 0.175 | U |
| | B-211-80 | 8/18/17 | PES | ESC | 80 | -40.25 | – | | – | – | 0.00731 | U | 0.0117 | U | 0.00804 | U | 0.0188 | U | **9.34** | | **0.495** | | **0.172** | | 0.00715 | U | 0.00788 | U |
| | B-211-90 | 8/18/17 | PES | ESC | 90 | -50.25 | – | | – | – | 0.00787 | U | 0.0126 | U | 0.00865 | U | 0.0203 | U | **2.66** | | **1.00** | | **0.0362** | | **0.0159** | **J** | 0.00849 | U |
| | B-211-100 | 8/18/17 | PES | ESC | 100 | -60.25 | – | | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | 0.000320 | U | 0.000324 | U | 0.000273 | U | 0.000306 | U | 0.000388 | U |
| | B-211-110 | 8/18/17 | PES | ESC | 110 | -70.25 | – | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.00132** | | **0.000436** | **J** | 0.000259 | U | 0.000291 | U | 0.000321 | U |
| | B-211-120 | 8/21/17 | PES | ESC | 120 | -80.25 | – | | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.000628** | **J** | **0.000423** | **J** | 0.000264 | U | 0.000296 | U | 0.000326 | U |
| B-216 | B-216-20 | 9/1/17 | PES | ESC | 20 | 31.86 | – | | – | – | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000752 | U | **0.00134** | | 0.000301 | U | 0.000253 | U | 0.000284 | U | 0.000313 | U |
| | B-216-40 | 9/1/17 | PES | ESC | 40 | 11.86 | – | | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | 0.000299 | U | 0.000303 | U | 0.000255 | U | 0.000286 | U | 0.000316 | U |
| | B-216-50 | 9/1/17 | PES | ESC | 50 | 1.86 | – | | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | U | 0.000298 | U | 0.000302 | U | 0.000254 | U | 0.000285 | U | 0.000315 | U |
| | B-216-55 | 9/1/17 | PES | ESC | 55 | -3.14 | – | | – | – | **0.0221** | | **0.0228** | | **0.00876** | **0.0189** | **0.0139** | | **0.00182** | | **0.182** | | **0.00356** | | **0.00113** | |
| | B-216-65 | 9/1/17 | PES | ESC | 65 | -13.14 | – | | – | – | 0.000324 | U | 0.000521 | U | 0.000357 | U | 0.000838 | U | 0.000331 | U | 0.000335 | U | 0.000282 | U | 0.000317 | U | 0.000349 | U |
| | B-216-85 | 9/1/17 | PES | ESC | 85 | -33.14 | – | | – | – | **0.000541** | **J** | **0.000655** | **J** | 0.000358 | U | 0.000842 | U | 0.000333 | U | 0.000336 | U | **0.000289** | **J** | 0.000318 | U | 0.000351 | U |
| | B-216-95 | 9/1/17 | PES | ESC | 95 | -43.14 | – | | – | – | 0.000307 | U | 0.000493 | U | 0.000337 | U | 0.000793 | U | 0.000314 | U | 0.000317 | U | 0.000267 | U | 0.000300 | U | 0.000331 | U |
| B-217 | B-217-15 | 9/5/17 | PES | ESC | 15 | 36.80 | – | | – | – | 0.000306 | U | 0.000493 | U | 0.000337 | U | 0.000792 | U | **0.0221** | | 0.000317 | U | 0.000267 | U | 0.000300 | U | 0.000330 | U |
| | B-217-25 | 9/5/17 | PES | ESC | 25 | 26.80 | – | | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | **0.0432** | | **0.00122** | | **0.00105** | **J** | 0.000293 | U | 0.000323 | U |
| | B-217-35 | 9/5/17 | PES | ESC | 35 | 16.80 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | 0.000317 | U | 0.000320 | U | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| | B-217-42 | 9/5/17 | PES | ESC | 42 | 9.80 | – | | – | – | 0.000309 | U | **0.000702** | **J** | 0.000340 | U | 0.000798 | U | **152** | | **0.150** | | **5.73** | | **0.00334** | | **0.464** | **J** |
| | B-217-55 | 9/5/17 | PES | ESC | 55 | -3.20 | – | | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | 0.000320 | U | 0.000324 | U | **0.0787** | | 0.000306 | U | **0.00462** | |
| | B-217-65 | 9/5/17 | PES | ESC | 65 | -13.20 | – | | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | **0.0255** | | **0.00178** | | **3.14** | | **0.000366** | **J** | **0.00259** | |
| | B-217-75 | 9/5/17 | PES | ESC | 75 | -23.20 | – | | – | – | 0.000323 | U | 0.000520 | U | 0.000356 | U | 0.000836 | U | 0.000331 | U | 0.000334 | U | 0.000281 | U | 0.000316 | U | 0.000349 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-217 (continued) | B-217-85 | 9/6/17 | PES | ESC | 85 | -33.20 | – | – | – | 0.000308 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | 0.000314 | U | 0.000318 | U | 0.000268 | U | 0.000301 | U | 0.000332 | U |
| | B-217-95 | 9/6/17 | PES | ESC | 95 | -43.20 | – | – | – | 0.000326 | U | 0.000525 | U | 0.000359 | U | 0.000844 | U | **0.00111** | **J** | 0.000337 | U | 0.000284 | U | 0.000319 | U | 0.000352 | U |
| | B-217-106 | 9/6/17 | PES | ESC | 106 | -54.20 | – | – | – | 0.0331 | U | 0.0532 | U | 0.0364 | U | 0.0855 | U | **5.18** | | **0.704** | | 0.0288 | U | 0.0324 | U | 0.0357 | U |
| | B-217-115 | 9/6/17 | PES | ESC | 115 | -63.20 | – | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | 0.000319 | U | 0.000322 | U | 0.000271 | U | 0.000305 | U | 0.000336 | U |
| B-218 | B-218-12.5 | 9/19/17 | PES | ESC | 12.5 | 25.61 | – | – | – | 0.000307 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | **0.0438** | | **0.775** | | **2.16** | | **0.0171** | | **0.0281** | |
| | B-218-19 | 9/19/17 | PES | ESC | 19 | 19.11 | – | – | – | 0.000306 | U | 0.000493 | U | 0.000337 | U | 0.000792 | U | **0.000476** | **J** | **0.00946** | **J** | **0.123** | | **0.00346** | | **0.0286** | |
| | B-218-25 | 9/19/17 | PES | ESC | 25 | 13.11 | – | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000808 | U | **0.0104** | | **0.0144** | | **0.0781** | | **0.00124** | | **0.0449** | |
| | B-218-40 | 9/19/17 | PES | ESC | 40 | -1.89 | – | – | – | 0.0166 | U | 0.0267 | U | 0.0182 | U | 0.0429 | U | **0.421** | | **0.255** | | **5.25** | | **0.0724** | | **0.271** | |
| | B-218-50 | 9/19/17 | PES | ESC | 50 | -11.89 | – | – | – | 0.000288 | U | 0.000463 | U | 0.000317 | U | 0.000744 | U | **2.01** | **J** | **0.953** | **J** | **3.19** | **J** | **0.0173** | | **0.0144** | **J** |
| | B-913-70 | 9/19/17 | PES | ESC | 50 (dup) | -11.89 | – | – | – | 0.000287 | U | 0.000461 | U | 0.000315 | U | 0.000741 | U | **0.537** | **J** | **0.180** | **J** | **5.52** | **J** | **0.0127** | | **0.00427** | **J** |
| B-219 | B-219-42 | 8/28/17 | PES | ESC | 42 | -2.21 | – | – | – | 0.000294 | U | 0.000473 | U | 0.000323 | U | 0.000760 | U | **0.000857** | **J** | **0.000504** | **J** | **0.0179** | | 0.000288 | U | **0.00214** | |
| | B-219-50 | 8/28/17 | PES | ESC | 50 | -10.21 | – | – | – | 0.000320 | U | 0.000514 | U | 0.000352 | U | 0.000827 | U | **0.0534** | **J** | **0.00555** | | **0.139** | | **0.00107** | **J** | **0.156** | |
| | B-219-60 | 8/28/17 | PES | ESC | 60 | -20.21 | – | – | – | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000751 | U | **0.000478** | **J** | 0.000300 | U | **0.00202** | | 0.000284 | U | **0.00161** | |
| | B-219-70 | 8/28/17 | PES | ESC | 70 | -30.21 | – | – | – | 0.000308 | U | 0.000495 | U | 0.000339 | U | 0.000797 | U | **0.00134** | **J** | 0.000318 | U | **0.00307** | | 0.000301 | U | **0.000670** | **J** |
| | B-219-80 | 8/28/17 | PES | ESC | 80 | -40.21 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000323 | U | 0.000758 | U | 0.000300 | U | 0.000303 | U | 0.00639 | U | 0.00717 | U | 0.000316 | U |
| B-220 | B-220-15 | 9/20/17 | PES | ESC | 15 | 23.91 | – | – | – | 0.000307 | U | 0.000493 | | 0.000338 | U | 0.000794 | U | **0.0351** | | **0.0526** | | **0.576** | | **0.00163** | | **0.0771** | |
| | B-220-29 | 9/20/17 | PES | ESC | 29 | 9.91 | – | – | – | 0.000314 | U | **0.000672** | **J+** | 0.000345 | U | 0.000811 | U | **14.0** | | **1.74** | | **2.13** | | **0.00550** | **J+** | **0.0490** | **J+** |
| | B-220-32 | 9/20/17 | PES | ESC | 32 | 6.91 | – | – | – | 0.000308 | U | 0.000495 | U | 0.000339 | U | 0.000796 | U | **6.52** | | **0.692** | **J** | **1.55** | | **0.00784** | | **0.143** | |
| | B-220-40 | 9/20/17 | PES | ESC | 40 | -1.09 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | **38.9** | | **5.82** | | **2.73** | | **0.00562** | | **0.132** | |
| | B-220-50 | 9/20/17 | PES | ESC | 50 | -11.09 | – | – | – | 0.000290 | U | 0.000467 | U | 0.000319 | U | 0.000751 | U | **18.5** | | **2.03** | | **0.0766** | | **0.000658** | **J** | **0.00191** | |
| | B-914-75 | 9/20/17 | PES | ESC | 50 (dup) | -11.09 | – | – | – | 0.000290 | U | 0.000467 | U | 0.000319 | U | 0.000751 | U | **15.5** | | **1.25** | | **0.0913** | | **0.000689** | **J** | **0.00210** | |
| B-221 | B-221-16 | 9/20/17 | PES | ESC | 16 | 23.02 | – | – | – | 0.00791 | U | 0.0127 | U | 0.00869 | U | 0.0204 | U | **0.539** | | **0.250** | | **1.37** | | 0.00773 | U | 0.0805 | U |
| | B-221-22 | 9/20/17 | PES | ESC | 22 | 17.02 | – | – | – | 0.311 | U | 0.499 | U | 0.342 | U | 0.803 | U | **25.8** | | **0.984** | **J** | **2.56** | | 0.304 | U | 0.335 | U |
| | B-221-33 | 9/20/17 | PES | ESC | 33 | 6.02 | – | – | – | 0.302 | U | 0.486 | U | 0.332 | U | 0.781 | U | **21.8** | | **0.835** | **J** | **1.93** | | 0.296 | U | 0.326 | U |
| | B-221-37 | 9/20/17 | PES | ESC | 37 | 2.02 | – | – | – | 0.0635 | U | 0.102 | U | 0.0698 | U | 0.165 | U | **9.02** | | **0.447** | | **0.438** | | 0.0621 | U | 0.0684 | U |
| | B-915-80 | 9/20/17 | PES | ESC | 37 (dup) | 2.02 | – | – | – | 0.0309 | U | 0.0497 | U | 0.0340 | U | 0.0800 | U | **7.54** | | **0.400** | | **0.342** | | 0.0303 | U | 0.0334 | U |
| | B-221-45 | 9/20/17 | PES | ESC | 45 | -5.98 | – | – | – | 2.96 | U | 4.76 | U | 3.26 | U | 7.66 | U | **8,270** | | **4.43** | **J** | 2.58 | U | 2.90 | U | 3.19 | U |
| | B-221-50 | 9/20/17 | PES | ESC | 50 | -10.98 | – | – | – | 0.147 | U | 0.236 | U | 0.161 | U | 0.380 | U | **30.4** | | **0.618** | | **0.561** | | 0.144 | U | 0.159 | U |
| | B-221-60 | 9/20/17 | PES | ESC | 60 | -20.98 | – | – | – | 0.149 | U | 0.240 | U | 0.164 | U | 0.386 | U | **14.5** | | **0.865** | | **1.41** | | 0.146 | U | 0.161 | U |
| | B-221-70 | 9/21/17 | PES | ESC | 70 | -30.98 | – | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.0853** | **J** | **0.00152** | | **0.00582** | | 0.000291 | U | **0.00153** | |
| B-222 | B-222-17 | 9/21/17 | PES | ESC | 17 | 22.16 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000791 | U | **1.01** | | **0.815** | | 0.000266 | U | **0.00481** | | **0.00907** | |
| | B-222-25 | 9/21/17 | PES | ESC | 25 | 14.16 | – | – | – | 0.000312 | U | 0.000502 | U | 0.000343 | U | 0.000807 | U | **0.714** | | **0.130** | | **0.109** | | **0.00171** | | **0.0116** | |
| | B-222-34 | 9/21/17 | PES | ESC | 34 | 5.16 | – | – | – | 0.000303 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | 0.0190 | UJ | **0.00506** | | **0.0255** | | **0.000980** | **J** | **0.0120** | |
| | B-222-42 | 9/21/17 | PES | ESC | 42 | -2.84 | – | – | – | **0.000387** | **J** | 0.000538 | U | 0.000368 | U | 0.000866 | U | **0.0557** | **J** | **0.00699** | | **7.34** | | **0.0431** | | **0.127** | |
| | B-222-50 | 9/21/17 | PES | ESC | 50 | -10.84 | – | – | – | 0.0145 | U | 0.0233 | U | 0.0159 | U | 0.0374 | U | **4.09** | | **1.40** | **J** | **0.498** | **J** | 0.0142 | U | 0.0157 | U |
| | B-916-30 | 9/21/17 | PES | ESC | 50 (dup) | -10.84 | – | – | – | 0.000286 | U | 0.000460 | | 0.000315 | U | 0.000740 | U | **4.34** | | **0.172** | **J** | **0.160** | **J** | **0.00183** | | 0.000309 | U |
| B-223 | B-223-16 | 9/21/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.0638 | U | 0.103 | U | 0.0702 | U | 0.165 | U | **27.0** | | **1.08** | | **1.71** | | 0.0624 | U | 0.0688 | U |
| | B-223-22 | 9/21/17 | PES | ESC | 22 | 17.10 | – | – | – | 0.0617 | U | 0.0991 | U | 0.0678 | U | 0.160 | U | **38.0** | | **0.453** | | **0.713** | | 0.0603 | U | 0.0665 | U |
| | B-223-30 | 9/21/17 | PES | ESC | 30 | 9.10 | – | – | – | 7.43 | U | 11.9 | U | 8.17 | U | 19.2 | U | **5,560** | | 7.68 | U | 6.47 | U | 7.27 | U | 8.01 | U |
| | B-223-39 | 9/21/17 | PES | ESC | 39 | 0.10 | – | – | – | 0.000308 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | **4.68** | | **0.0228** | | **0.0914** | | **0.000883** | **J** | **0.00775** | |
| | B-223-47 | 9/21/17 | PES | ESC | 47 | -7.90 | – | – | – | 0.000314 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | **2.17** | **J** | **0.00106** | **J** | **0.00208** | | 0.000307 | U | 0.000338 | U |
| | B-917-57 | 9/21/17 | PES | ESC | 47 (dup) | -7.90 | – | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000750 | U | **1.13** | **J** | **0.000520** | **J** | **0.000728** | **J** | 0.000284 | U | 0.000313 | U |
| B-224 | B-224-6 | 11/27/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000755 | U | **0.0208** | | **0.00205** | | **0.000624** | **J** | 0.000285 | U | 0.000315 | U |
| | B-224-11 | 11/27/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000722 | U | **0.00174** | **J** | 0.000793 | U | 0.00186 | U | **0.151** | | **0.0404** | | **0.148** | | **0.0136** | | **0.0577** | |
| | B-224-16 | 11/27/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.000326 | U | 0.000525 | U | 0.000359 | U | 0.000844 | U | **0.0101** | | **0.00374** | | **0.0279** | | **0.000403** | **J** | **0.0195** | |
| | B-224-21.5 | 11/27/17 | PES | ESC | 21.5 | 17.60 | – | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | **2.71** | | **0.0906** | | **0.117** | | **0.00140** | | **0.00460** | |
| | B-224-26 | 11/27/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000357 | U | 0.000574 | U | 0.000392 | U | 0.000923 | U | **3.07** | | **0.234** | | **0.289** | | **0.00329** | | **0.0154** | |
| | B-224-31 | 11/27/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000316 | U | 0.000508 | U | 0.000348 | U | 0.000816 | U | **4.71** | | **0.137** | | **0.207** | | **0.00128** | | **0.00773** | |
| | B-224-36 | 11/27/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | **6.55** | | **0.269** | | **0.326** | | **0.00289** | | **0.0255** | |
| | B-224-60.5 | 11/27/17 | PES | ESC | 60.5 | -21.40 | – | – | – | 0.000436 | U | 0.000702 | U | 0.000481 | U | 0.00113 | U | **0.151** | | **0.00944** | | **0.0323** | | 0.000427 | U | **0.0103** | |
| B-225 | B-225-5 | 11/27/17 | PES | ESC | 5 | 34.10 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.0223** | | **0.00239** | | **0.00217** | | 0.000286 | U | 0.000316 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-225 (continued) | B-225-11 | 11/27/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000316 | U | 0.000508 | U | 0.000347 | U | 0.000816 | U | **0.0124** | | **0.00394** | | **0.0222** | | 0.000309 | U | **0.000480** | **J** |
| | B-225-16 | 11/27/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.00794 | U | 0.0127 | U | 0.00873 | U | 0.0205 | U | **4.26** | | **0.353** | | **1.62** | | 0.00776 | U | **0.0460** | |
| | B-225-21 | 11/27/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.00767 | U | 0.0123 | U | 0.00844 | U | 0.0198 | U | **1.11** | | **0.0428** | | **0.0455** | | 0.00750 | U | 0.00828 | U |
| | B-225-26 | 11/27/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000317 | U | 0.000510 | U | 0.000349 | U | 0.000820 | U | **1.13** | | **0.0370** | | **0.0710** | | **0.000763** | **J** | **0.00619** | |
| | B-225-31 | 11/27/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000309 | U | 0.000496 | U | 0.000339 | U | 0.000798 | U | **1.09** | | **0.0372** | | **0.164** | | **0.000751** | **J** | **0.00550** | |
| | B-225-36 | 11/27/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000333 | U | 0.000535 | U | 0.000366 | U | 0.000860 | U | **0.158** | | **0.00696** | | **0.0115** | | 0.000325 | U | **0.000538** | **J** |
| B-226 | B-226-6 | 11/28/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000325 | U | 0.000523 | U | 0.000358 | U | 0.000841 | U | **0.0227** | | **0.00209** | | **0.00317** | | 0.000318 | U | 0.000350 | U |
| | B-226-11 | 11/28/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000306 | U | **0.000730** | **J** | 0.000337 | U | 0.000792 | U | **0.00869** | | **0.00190** | | **0.00338** | | 0.000299 | U | **0.000805** | **J** |
| | B-226-16 | 11/28/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.00757 | U | 0.0121 | U | 0.00832 | U | 0.0195 | U | **21.7** | **J** | **0.917** | **J** | **1.84** | **J** | **0.0147** | **J** | **0.0557** | **J** |
| | B-920-35 | 11/28/17 | PES | ESC | 16 (dup) | 23.10 | – | – | – | 0.000299 | U | 0.000480 | U | 0.000329 | U | 0.000772 | U | **10.6** | **J** | **0.0316** | **J** | **0.0714** | **J** | **0.000613** | **J** | **0.00141** | **J** |
| | B-226-21 | 11/28/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.000308 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | **3.07** | | **0.00779** | | **0.00832** | | 0.000301 | U | **0.000390** | **J** |
| | B-226-31.5 | 11/28/17 | PES | ESC | 31.5 | 7.60 | – | – | – | 0.000287 | U | 0.000462 | U | 0.000316 | U | 0.000743 | U | **4.80** | | **0.0755** | | **0.135** | | **0.00128** | | **0.0102** | |
| | B-226-40 | 11/28/17 | PES | ESC | 40 | -0.90 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | **1.75** | | **0.0401** | | **0.112** | | **0.000939** | **J** | **0.0188** | |
| B-227 | B-227-6 | 11/28/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000308 | U | 0.000496 | U | 0.000339 | U | 0.000797 | U | **0.0154** | | **0.000798** | **J** | **0.000455** | **J** | 0.000301 | U | 0.000332 | U |
| | B-227-11 | 11/28/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000752 | U | **0.141** | | **0.0406** | | **0.0438** | | **0.00143** | | 0.000314 | U |
| | B-227-16 | 11/28/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000800 | U | **2.47** | | **0.0804** | | **0.429** | | **0.00203** | | **0.00781** | |
| | B-227-21 | 11/28/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | **7.18** | | **0.311** | | **0.393** | | **0.00290** | | **0.0186** | |
| | B-227-26 | 11/28/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000315 | U | 0.000506 | U | 0.000346 | U | 0.000813 | U | **7.86** | | **0.124** | | **0.351** | | **0.00186** | | **0.00735** | |
| | B-227-31 | 11/28/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000324 | U | 0.000521 | U | 0.000356 | | 0.000837 | U | **8.38** | | **0.0396** | | **0.0636** | | **0.000628** | **J** | **0.00446** | |
| | B-227-36 | 11/28/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | | 0.000801 | U | **1.75** | | **0.138** | | **0.382** | | **0.00193** | | **0.00169** | |
| B-228 | B-228-6 | 11/29/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000330 | U | 0.000531 | U | 0.000363 | U | 0.000854 | U | **0.0291** | | **0.00216** | | **0.00505** | | 0.000323 | U | 0.000356 | U |
| | B-228-11 | 11/29/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000776 | U | **0.00300** | | **0.000709** | **J** | **0.000669** | **J** | 0.000293 | U | 0.000323 | U |
| | B-228-16 | 11/29/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.000291 | U | **0.000556** | **J** | 0.000320 | U | 0.000752 | U | **203** | **J** | **0.680** | **J** | **0.811** | **J** | **0.00385** | | **0.00764** | |
| | B-921-22 | 11/29/17 | PES | ESC | 16 (dup) | 23.10 | – | – | – | 0.000310 | U | **0.000672** | **J** | 0.000341 | U | 0.000802 | U | **18.2** | **J** | **0.378** | **J** | **0.474** | **J** | **0.00415** | | **0.00840** | |
| | B-228-21 | 11/29/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.000305 | U | 0.000491 | U | 0.000336 | U | 0.000789 | U | **14.0** | | **0.0594** | | **0.0290** | | **0.000496** | **J** | **0.000858** | **J** |
| | B-228-26 | 11/29/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000751 | U | **10.2** | | **0.0775** | | **0.112** | | **0.000777** | **J** | **0.0127** | |
| | B-228-31 | 11/29/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | **1.60** | | **0.0786** | | **0.121** | | **0.000614** | **J** | **0.0103** | |
| | B-228-36 | 11/29/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000336 | U | 0.000789 | U | **0.101** | | **0.0486** | | **0.0648** | | **0.000603** | **J** | **0.0217** | |
| B-229 | B-229-6 | 11/29/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000395 | U | 0.000635 | U | 0.000435 | U | 0.00102 | U | **0.769** | | **0.0382** | | **0.0257** | | 0.000386 | U | 0.000426 | U |
| | B-229-11 | 11/29/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000383 | U | **0.00219** | **J** | 0.000422 | U | 0.000991 | U | **0.0366** | | **0.00585** | | **0.118** | | **0.00148** | | **0.0272** | |
| | B-229-16 | 11/29/17 | PES | ESC | 16 | 23.10 | – | – | – | **0.000388** | **J** | 0.000517 | U | 0.000354 | U | 0.000832 | U | **0.101** | | **0.0138** | | **0.0188** | | **0.000828** | **J** | **0.00481** | |
| | B-229-25 | 11/29/17 | PES | ESC | 25 | 14.10 | – | – | – | 0.000296 | U | 0.000476 | U | 0.000326 | U | 0.000765 | U | **2.50** | | **0.510** | | **0.865** | | **0.00195** | | **0.0418** | |
| | B-229-31 | 11/29/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000326 | U | 0.000523 | U | 0.000358 | U | 0.000842 | U | **4.99** | | **1.53** | | **2.35** | | **0.00384** | | **0.105** | |
| | B-229-36 | 11/29/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000327 | U | 0.000768 | U | **9.25** | | **0.898** | | **1.02** | | **0.00217** | | **0.0609** | |
| | B-229-41 | 11/29/17 | PES | ESC | 41 | -1.90 | – | – | – | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000813 | U | **64.0** | | **0.384** | **J** | **0.403** | **J** | **0.00377** | | **0.126** | |
| | B-229-45 | 11/29/17 | PES | ESC | 45 | -5.90 | – | – | – | 0.000323 | U | 0.000519 | U | 0.000355 | U | 0.000835 | U | **158** | **J+** | **0.0946** | **J+** | **0.105** | **J+** | **0.000316** | **J+** | **0.00430** | **J+** |
| B-230 | B-230-6 | 11/30/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000285 | U | 0.000458 | U | 0.000313 | U | 0.000736 | U | **0.0333** | | **0.00215** | | **0.00376** | | 0.000278 | U | 0.000307 | U |
| | B-230-11 | 11/30/17 | PES | ESC | 11 | 28.10 | – | – | – | **0.000348** | **J** | 0.000474 | U | 0.000324 | U | 0.000762 | U | **0.00442** | | **0.000709** | **J** | **0.00634** | | 0.000288 | U | **0.00225** | |
| | B-230-16 | 11/30/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.0751 | U | 0.120 | U | 0.0826 | U | 0.194 | U | **1,100** | | **9.17** | | **10.4** | | 0.0735 | U | 0.0810 | U |
| | B-230-21 | 11/30/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.645 | U | 1.04 | U | 0.709 | U | 1.67 | U | **2,820** | **J** | **4.43** | **J** | **2.71** | **J** | 0.630 | U | 0.695 | U |
| | B-922-15 | 11/30/17 | PES | ESC | 21 (dup) | 18.10 | – | – | – | 0.326 | U | 0.524 | U | 0.359 | U | 0.843 | U | **165** | **J** | **0.505** | **J** | **0.884** | **J** | 0.319 | U | 0.351 | U |
| | B-230-26 | 11/30/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.809 | U | 1.29 | U | 0.889 | U | 2.09 | U | **607** | | 0.836 | U | 0.705 | U | 0.791 | U | 0.872 | U |
| | B-230-31 | 11/30/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.336 | U | 0.540 | U | 0.369 | U | 0.868 | U | **105** | | **0.603** | **J** | **1.82** | | 0.328 | U | 0.362 | U |
| | B-230-35 | 11/30/17 | PES | ESC | 35 | 4.10 | – | – | – | 0.0488 | U | 0.0784 | U | 0.0536 | U | **0.174** | **J** | **25.4** | | **0.211** | | **0.470** | | 0.0477 | U | 0.0525 | U |
| | B-230-55 | 11/30/17 | PES | ESC | 55 | -15.90 | – | – | – | 0.0810 | U | 0.130 | U | 0.0891 | U | 0.209 | U | **42.3** | | **5.09** | | **1.97** | | 0.0792 | U | 0.0874 | U |
| B-231 | B-231-6 | 11/30/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000333 | U | 0.000535 | U | 0.000366 | U | 0.000861 | U | **0.0109** | | **0.00146** | | **0.00617** | | 0.000326 | U | 0.000359 | U |
| | B-231-11 | 11/30/17 | PES | ESC | 11 | 28.10 | – | – | – | 0.000318 | U | 0.000512 | U | 0.000350 | U | 0.000823 | U | **0.0347** | | **0.000346** | **J** | **0.000868** | **J** | 0.000311 | U | 0.000343 | U |
| | B-231-16 | 11/30/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.00756 | U | 0.0121 | U | 0.00831 | U | 0.0195 | U | **0.438** | | **0.118** | | **2.18** | | 0.00739 | U | **0.0114** | **J** |
| | B-231-21 | 11/30/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.0179 | U | 0.0287 | U | 0.0196 | U | 0.0462 | U | **0.728** | | **0.180** | | **0.911** | | 0.0174 | U | **0.0458** | **J** |
| | B-231-26 | 11/30/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000314 | U | 0.000504 | U | 0.000345 | U | 0.000811 | U | **0.119** | | **0.0177** | | **0.122** | | **0.000898** | **J** | **0.00996** | |
| | B-231-30 | 11/30/17 | PES | ESC | 30 | 9.10 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000787 | U | **0.0182** | | **0.00140** | | **0.00245** | | 0.000298 | U | **0.00142** | |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| (B-231, continued) | B-231-36 | 11/30/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | **0.0521** | | **0.00158** | | **0.0441** | | **0.000664** | **J** | **0.118** | |
| B-232 | B-232-6 | 12/1/17 | PES | ESC | 6 | 31.46 | – | – | – | **0.000380** | **J** | **0.00268** | **J** | 0.000351 | U | **0.000825** | **J** | **0.00936** | | **0.00224** | | **0.00586** | | **0.000488** | **J** | **0.00163** | |
| | B-232-11 | 12/1/17 | PES | ESC | 11 | 26.46 | – | – | – | **0.000630** | **J+** | **0.000806** | **J+** | 0.000395 | U | 0.000929 | U | **0.00590** | **J+** | **0.00169** | **J+** | **0.00464** | **J+** | 0.000351 | U | **0.00346** | **J+** |
| | B-232-16 | 12/1/17 | PES | ESC | 16 | 21.46 | – | – | – | 0.000316 | U | 0.000508 | U | 0.000348 | U | 0.000817 | U | 0.000676 | U | 0.000327 | U | **0.0101** | | 0.000309 | U | **0.00442** | |
| | B-232-21 | 12/1/17 | PES | ESC | 21 | 16.46 | – | – | – | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | **0.0190** | | **0.0216** | | **0.147** | | **0.00106** | **J** | **0.00682** | |
| | B-232-26 | 12/1/17 | PES | ESC | 26 | 11.46 | – | – | – | 0.0101 | U | 0.0162 | U | 0.0111 | U | 0.0261 | U | **11.1** | | **0.763** | | **0.474** | | 0.00987 | U | 0.0109 | U |
| | B-232-31 | 12/1/17 | PES | ESC | 31 | 6.46 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000788 | U | **4.27** | | **0.0964** | | **0.0874** | | **0.000524** | **J** | **0.0110** | |
| | B-232-36 | 12/1/17 | PES | ESC | 36 | 1.46 | – | – | – | 0.000320 | U | 0.000514 | U | 0.000352 | U | 0.000827 | U | **1.88** | | **0.0913** | | **0.110** | | **0.000631** | **J** | **0.0123** | |
| B-233 | B-233-6 | 12/1/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000753 | U | **0.0192** | | **0.00321** | | **0.00266** | | 0.000285 | U | 0.000314 | U |
| | B-233-11 | 12/1/17 | PES | ESC | 11 | 28.10 | – | – | – | **0.00167** | **J+** | **0.00349** | **J+** | 0.000828 | U | 0.00194 | U | **0.172** | **J+** | **0.0579** | **J+** | **0.0321** | **J+** | 0.000737 | U | **0.00824** | **J+** |
| | B-233-16 | 12/1/17 | PES | ESC | 16 | 23.10 | – | – | – | **0.000420** | **J** | 0.000612 | U | 0.000419 | U | 0.000985 | U | **0.0231** | | **0.00524** | | **0.0101** | | 0.000373 | U | **0.00358** | |
| | B-233-21 | 12/1/17 | PES | ESC | 21 | 18.10 | – | – | – | **0.00770** | | 0.0123 | U | 0.00847 | U | 0.0199 | U | **8.23** | | **0.434** | | **0.645** | | **0.00859** | **J** | **0.0584** | |
| | B-233-26 | 12/1/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.0161 | U | 0.0259 | U | 0.0177 | U | 0.0417 | U | **9.90** | | **2.55** | | **2.40** | | 0.0158 | U | **0.0261** | **J** |
| | B-233-31 | 12/1/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.00839 | U | 0.0134 | U | 0.00923 | U | 0.0216 | U | **17.3** | | **1.99** | | **1.65** | | 0.00821 | U | **0.0519** | |
| | B-233-36 | 12/1/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.00760 | U | 0.0122 | U | 0.00835 | U | 0.0196 | U | **6.26** | | **0.474** | | **0.969** | | 0.00743 | U | **0.0404** | |
| B-234 | B-234-11 | 12/4/17 | PES | ESC | 11 | 40.80 | – | – | – | 0.000314 | U | 0.000505 | U | 0.000345 | U | 0.000812 | U | **0.00155** | | 0.000324 | U | 0.000273 | U | 0.000307 | U | 0.000338 | U |
| | B-234-30 | 12/4/17 | PES | ESC | 30 | 21.80 | – | – | – | 0.000286 | U | 0.000459 | U | 0.000314 | U | 0.000739 | U | 0.000292 | U | 0.000295 | U | 0.000249 | U | 0.000279 | U | 0.000308 | U |
| B-234A | B-234A-35 | 12/4/17 | PES | ESC | 35 | 16.80 | – | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **0.000320** | **J** | 0.000320 | U | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| | B-234A-40 | 12/4/17 | PES | ESC | 40 | 11.80 | – | – | – | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000751 | U | **0.000501** | **J** | 0.000300 | U | 0.000253 | U | 0.000284 | U | 0.000313 | U |
| | B-234A-42 | 12/4/17 | PES | ESC | 42 | 9.80 | – | – | – | 0.000331 | U | 0.000532 | U | 0.000364 | U | 0.000855 | U | **0.0146** | | **0.00180** | | **3.65** | **J** | **0.00104** | **J** | **0.343** | **J** |
| | B-924-30 | 12/4/17 | PES | ESC | 42 (dup) | 9.80 | – | – | – | 0.000328 | U | 0.000527 | U | 0.000361 | U | 0.000848 | U | **0.0113** | | **0.00161** | | **2.54** | **J** | **0.00119** | **J** | **0.167** | **J** |
| | B-234A-45 | 12/4/17 | PES | ESC | 45 | 6.80 | – | – | – | 0.000304 | U | 0.000489 | U | 0.000335 | U | 0.000787 | U | **0.0533** | | **0.00364** | | **1.99** | | **0.000552** | **J** | **0.106** | |
| B-235 | B-235-15 | 12/5/17 | PES | ESC | 15 | 36.80 | – | – | – | 0.000325 | U | 0.000521 | U | 0.000357 | U | 0.000838 | U | **0.0393** | | **0.000776** | **J** | 0.000261 | U | 0.000317 | U | 0.000349 | U |
| | B-235-35 | 12/5/17 | PES | ESC | 35 | 16.80 | – | – | – | 0.000299 | U | 0.000480 | U | 0.000329 | U | 0.000773 | U | **0.0424** | | **0.00527** | | **0.000746** | **J** | 0.000292 | U | 0.000322 | U |
| | B-235-40 | 12/5/17 | PES | ESC | 40 | 11.80 | – | – | – | **0.000326** | **J** | 0.000476 | U | 0.000326 | U | 0.000765 | U | **2.24** | | **0.0233** | | **0.00618** | | 0.000289 | U | 0.000319 | U |
| | B-235-42.5 | 12/5/17 | PES | ESC | 42.5 | 9.30 | – | – | – | 0.0590 | U | 0.0948 | U | 0.0649 | U | 0.153 | U | **18.9** | | **1.06** | | **2.07** | | 0.0577 | U | **0.0877** | **J** |
| | B-235-45 | 12/5/17 | PES | ESC | 45 | 6.80 | – | – | – | 0.000304 | U | **0.000506** | **J** | 0.000334 | U | 0.000786 | U | **20.7** | | **1.09** | | **0.479** | | **0.000963** | **J** | **0.0885** | |
| B-236 | B-236-20 | 12/5/17 | PES | ESC | 20 | 31.80 | – | – | – | 0.000309 | U | 0.000496 | U | 0.000340 | U | 0.000798 | U | **0.0460** | | **0.00164** | | **0.00139** | | 0.000302 | U | 0.000333 | U |
| | B-236-35 | 12/5/17 | PES | ESC | 35 | 16.80 | – | – | – | 0.000489 | U | 0.000786 | U | 0.000538 | U | 0.00127 | U | **0.00968** | | 0.000310 | U | 0.000261 | U | 0.000478 | U | 0.000527 | U |
| | B-236-40 | 12/5/17 | PES | ESC | 40 | 11.80 | – | – | – | 0.000299 | U | 0.000480 | U | 0.000329 | U | 0.000772 | U | **0.0440** | | **0.000826** | **J** | **0.00621** | | 0.000292 | U | **0.00373** | |
| | B-236-42.5 | 12/5/17 | PES | ESC | 42.5 | 9.30 | – | – | – | 0.317 | U | 0.509 | U | 0.348 | U | 0.819 | U | **16,400** | | **72.5** | | **2.87** | | 0.310 | U | **0.407** | **J** |
| | B-236-45 | 12/5/17 | PES | ESC | 45 | 6.80 | – | – | – | 0.106 | U | 0.170 | U | 0.116 | U | 0.274 | U | **31.0** | | **0.335** | **J** | **0.969** | | 0.104 | U | 0.114 | U |
| B-237 | B-237-5 | 12/6/17 | PES | ESC | 5 | 46.80 | – | – | – | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000813 | U | **0.00814** | | 0.000325 | U | 0.000274 | U | 0.000307 | U | 0.000339 | U |
| | B-237-35 | 12/6/17 | PES | ESC | 35 | 16.80 | – | – | – | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | **0.000770** | **J** | 0.000326 | U | 0.000274 | U | 0.000308 | U | 0.000340 | U |
| | B-237-40 | 12/6/17 | PES | ESC | 40 | 11.80 | – | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000750 | U | **2.57** | | **0.0163** | | **1.34** | | 0.000284 | U | 0.000313 | U |
| | B-237-42 | 12/6/17 | PES | ESC | 42 | 9.80 | – | – | – | 0.000319 | U | **0.000539** | **J** | 0.000351 | U | 0.000825 | U | **24.1** | **J** | **0.746** | **J** | **1.84** | **J** | **0.00338** | **J** | **0.290** | **J** |
| | B-925-41 | 12/6/17 | PES | ESC | 42 (dup) | 9.80 | – | – | – | 0.0345 | U | 0.0554 | U | 0.0379 | U | 0.0891 | U | **53.0** | **J** | **1.86** | **J** | **4.51** | **J** | 0.0337 | U | **0.110** | **J** |
| | B-237-45 | 12/6/17 | PES | ESC | 45 | 6.80 | – | – | – | 0.000348 | U | 0.000559 | U | 0.000382 | U | 0.000899 | U | **10.9** | | **0.0457** | | **2.83** | | **0.000848** | **J** | **0.131** | |
| B-238 | B-238-6 | 12/6/17 | PES | ESC | 6 | 33.10 | – | – | – | 0.000315 | U | 0.000506 | U | 0.000346 | U | 0.000814 | U | **0.0262** | | **0.00294** | | **0.0118** | | 0.000308 | U | 0.000339 | U |
| | B-238-11 | 12/6/17 | PES | ESC | 11 | 28.10 | – | – | – | **0.000929** | **J+** | **0.00774** | **J+** | 0.000346 | U | 0.000812 | U | **22.7** | | **0.0724** | **J+** | **0.0767** | **J+** | **0.000705** | **J+** | **0.00193** | |
| | B-238-16 | 12/6/17 | PES | ESC | 16 | 23.10 | – | – | – | 0.0772 | U | 0.124 | U | 0.0849 | U | 0.199 | U | **28.6** | | **0.262** | **J** | **0.191** | **J** | 0.0755 | U | 0.0833 | U |
| | B-238-21 | 12/6/17 | PES | ESC | 21 | 18.10 | – | – | – | 0.301 | U | 0.484 | U | 0.331 | U | 0.779 | U | **156** | | 0.311 | U | 0.262 | U | 0.295 | U | 0.325 | U |
| | B-238-26 | 12/6/17 | PES | ESC | 26 | 13.10 | – | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000781 | U | **3.04** | | **0.303** | | **0.375** | | **0.00236** | | **0.0375** | |
| | B-238-31 | 12/6/17 | PES | ESC | 31 | 8.10 | – | – | – | 0.000286 | U | 0.000460 | U | 0.000315 | U | 0.000740 | U | **1.02** | | **0.0375** | | **0.0572** | | **0.000537** | **J** | **0.0210** | |
| | B-238-36 | 12/6/17 | PES | ESC | 36 | 3.10 | – | – | – | 0.000316 | U | 0.000508 | U | 0.000348 | U | 0.000817 | U | **4.04** | | **0.0399** | | **0.0928** | | **0.000500** | **J** | **0.0328** | |
| B-239 | B-239-5 | 4/3/18 | PES | ESC | 5 | 34.24 | – | – | – | 0.000321 | U | 0.000516 | U | 0.000353 | U | 0.000830 | U | **0.0292** | | **0.00590** | | **0.0107** | | 0.000314 | U | 0.000346 | U |
| | B-239-10 | 4/3/18 | PES | ESC | 10 | 29.24 | – | – | – | 0.000319 | U | 0.000512 | U | 0.000350 | U | 0.000824 | U | **0.509** | | **0.104** | | **0.0366** | | **0.000619** | **J** | **0.0159** | |
| | B-239-15 | 4/3/18 | PES | ESC | 15 | 24.24 | – | – | – | 0.000307 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | **0.133** | | **0.0428** | | **0.0187** | | 0.000301 | U | **0.00479** | |
| | B-239-20 | 4/3/18 | PES | ESC | 20 | 19.24 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000788 | U | **0.00688** | | **0.000781** | **J** | **0.000649** | **J** | 0.000298 | U | 0.000328 | U |
| | B-239-25 | 4/3/18 | PES | ESC | 25 | 14.24 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000800 | U | **0.00259** | | **0.000327** | **J** | **0.000411** | **J** | 0.000302 | U | 0.000333 | U |
| | B-239-35 | 4/3/18 | PES | ESC | 35 | 4.24 | – | – | – | 0.000292 | U | 0.000470 | U | 0.000322 | U | 0.000756 | U | **0.0330** | | **0.00550** | | **0.00395** | | 0.000286 | U | **0.000632** | **J** |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-239 (continued) | B-239-40 | 4/3/18 | PES | ESC | 40 | -0.76 | – | | – | | – | | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | **0.0414** | | **0.00626** | | **0.00454** | | 0.000299 | U | **0.000769** | **J** |
| | B-239-45 | 4/3/18 | PES | ESC | 45 | -5.76 | – | | – | | – | | 0.000302 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | **0.000534** | **J** | 0.000313 | U | **0.000317** | **J** | 0.000296 | U | **0.000390** | **J** |
| | B-239-50 | 4/3/18 | PES | ESC | 50 | -10.76 | – | | – | | – | | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000771 | U | **0.000777** | **J** | 0.000308 | U | **0.000272** | **J** | 0.000292 | U | 0.000321 | U |
| | B-909-50 | 4/3/18 | PES | ESC | 50 (dup) | -10.76 | – | | – | | – | | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000776 | U | **0.000448** | **J** | 0.000310 | U | 0.000261 | U | 0.000293 | U | 0.000323 | U |
| | B-239-55 | 4/3/18 | PES | ESC | 55 | -15.76 | – | | – | | – | | 0.000307 | U | 0.000494 | U | 0.000338 | U | 0.000794 | U | 0.000314 | U | 0.000317 | U | 0.000267 | U | 0.000300 | U | 0.000331 | U |
| | B-239-60 | 4/3/18 | PES | ESC | 60 | -20.76 | – | | – | | – | | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000781 | U | 0.000309 | U | 0.000312 | U | 0.000263 | U | 0.000295 | U | 0.000325 | U |
| | B-239-65 | 4/3/18 | PES | ESC | 65 | -25.76 | – | | – | | – | | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000780 | U | 0.000308 | U | 0.000312 | U | 0.000263 | U | 0.000295 | U | 0.000325 | U |
| | B-239-70 | 4/3/18 | PES | ESC | 70 | -30.76 | – | | – | | – | | 0.000301 | U | 0.000483 | U | 0.000331 | U | 0.000778 | U | **0.000926** | **J** | 0.000311 | U | 0.000262 | U | 0.000294 | U | 0.000324 | U |
| | B-239-75 | 4/3/18 | PES | ESC | 75 | -35.76 | – | | – | | – | | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000805 | U | 0.000318 | U | 0.000322 | U | 0.000271 | U | 0.000304 | U | 0.000335 | U |
| | B-239-80 | 4/3/18 | PES | ESC | 80 | -40.76 | – | | – | | – | | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | 0.000316 | U | 0.000319 | U | 0.000269 | U | 0.000302 | U | 0.000333 | U |
| B-240 | B-240-5 | 4/2/18 | PES | ESC | 5 | 34.24 | – | | – | | – | | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | | **0.0231** | | 0.000308 | U | **0.00274** | | 0.000291 | U | 0.000321 | U |
| | B-240-10 | 4/2/18 | PES | ESC | 10 | 29.24 | – | | – | | – | | **0.000325** | **J** | 0.000478 | U | 0.000327 | U | 0.000770 | U | **1.25** | | **0.0141** | | **0.0929** | | **0.000635** | **J** | **0.0427** | |
| | B-240-15 | 4/2/18 | PES | ESC | 15 | 24.24 | – | | – | | – | | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **53.7** | | **0.118** | | **0.0785** | | **0.000802** | **J** | **0.00418** | |
| | B-240-20 | 4/2/18 | PES | ESC | 20 | 19.24 | – | | – | | – | | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000813 | U | **6.75** | | **0.0715** | **J** | **0.142** | | **0.000619** | **J** | **0.0268** | |
| | B-240-25 | 4/2/18 | PES | ESC | 25 | 14.24 | – | | – | | – | | 0.0151 | U | 0.0242 | U | 0.0165 | U | 0.0390 | U | **5.18** | | **0.214** | | **0.356** | | 0.0147 | U | **0.0421** | **J** |
| | B-240-30 | 4/2/18 | PES | ESC | 30 | 9.24 | – | | – | | – | | 0.000325 | U | 0.000523 | U | 0.000358 | U | 0.000841 | U | **5.51** | | **0.352** | | **0.578** | | **0.00143** | | **0.0480** | |
| | B-240-35 | 4/2/18 | PES | ESC | 35 | 4.24 | – | | – | | – | | 0.000324 | U | 0.000521 | U | 0.000357 | U | 0.000838 | U | **5.53** | | **0.290** | | **0.461** | | **0.00131** | | **0.0447** | |
| | B-240-42 | 4/2/18 | PES | ESC | 42 | -2.76 | – | | – | | – | | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000751 | U | **0.204** | | 0.00751 | UJ | **0.00863** | **J** | 0.000284 | U | **0.00225** | |
| | B-240-45 | 4/2/18 | PES | ESC | 45 | -5.76 | – | | – | | – | | 0.000286 | U | 0.000460 | U | 0.000315 | U | 0.000740 | U | **0.00137** | | 0.000296 | U | **0.000371** | **J** | 0.000280 | U | 0.000309 | U |
| | B-240-50 | 4/2/18 | PES | ESC | 50 | -10.76 | – | | – | | – | | 0.000304 | U | 0.000489 | U | 0.000334 | U | 0.000786 | U | 0.000311 | U | 0.000314 | U | 0.000265 | U | 0.000297 | U | 0.000328 | U |
| | B-240-55 | 4/2/18 | PES | ESC | 55 | -15.76 | **0.376** | | – | | – | | 0.000313 | U | 0.000503 | U | 0.000345 | U | 0.000810 | U | **0.0161** | | **0.000513** | **J** | **0.00231** | | 0.000306 | U | **0.000654** | **J** |
| | B-240-60 | 4/2/18 | PES | ESC | 60 | -20.76 | **0.124** | | – | | – | | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000813 | U | **0.0323** | | **0.00223** | | **0.0157** | | 0.000307 | U | **0.00133** | |
| | B-240-65 | 4/2/18 | PES | ESC | 65 | -25.76 | 0.0368 | U | – | | – | | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.0171** | | **0.000760** | **J** | **0.00152** | | 0.000286 | U | **0.000410** | **J** |
| | B-240-70 | 4/2/18 | PES | ESC | 70 | -30.76 | **0.0447** | **J** | – | | – | | 0.000312 | U | 0.000502 | U | 0.000344 | U | 0.000808 | U | **0.0621** | | **0.00454** | | **0.0138** | | 0.000305 | U | **0.00117** | |
| | B-240-75 | 4/2/18 | PES | ESC | 75 | -35.76 | 0.0372 | U | – | | – | | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.00162** | | **0.000773** | **J** | **0.00612** | | 0.000290 | U | 0.000320 | U |
| | B-240-80 | 4/2/18 | PES | ESC | 80 | -40.76 | 0.0386 | U | – | | – | | 0.000307 | U | 0.000494 | U | 0.000338 | U | 0.000794 | U | **0.000376** | **J** | 0.000317 | U | **0.000662** | **J** | 0.000300 | U | 0.000331 | U |
| B-241 | B-241-5 | 4/4/18 | PES | ESC | 5 | 34.08 | – | | – | | – | | **0.00118** | | **0.0139** | | **0.210** | | **4.11** | | **0.0428** | | **0.00500** | | **0.00554** | | 0.000286 | U | 0.000316 | U |
| | B-241-10 | 4/4/18 | PES | ESC | 10 | 29.08 | – | | – | | – | | 0.000306 | U | 0.000492 | U | **0.000337** | **J** | 0.000791 | U | **0.00116** | | **0.000459** | **J** | **0.0503** | | **0.000357** | **J** | **0.00320** | |
| | B-241-15 | 4/4/18 | PES | ESC | 15 | 24.08 | – | | – | | – | | 0.000301 | U | 0.000484 | U | 0.000332 | U | 0.000779 | U | **0.00106** | **J** | **0.000424** | **J** | **0.000701** | **J** | 0.000295 | U | **0.00335** | |
| | B-241-20 | 4/4/18 | PES | ESC | 20 | 19.08 | – | | – | | – | | 0.000329 | U | 0.000528 | U | 0.000361 | U | 0.000849 | U | **0.0273** | | **0.0525** | | **0.172** | | **0.00274** | | **0.0648** | |
| | B-241-25 | 4/4/18 | PES | ESC | 25 | 14.08 | – | | – | | – | | 0.000305 | U | 0.000491 | U | 0.000336 | U | 0.000789 | U | **0.0148** | | **0.00615** | | **0.0177** | | 0.000298 | U | **0.00779** | |
| | B-241-30 | 4/3/18 | PES | ESC | 30 | 9.08 | – | | – | | – | | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.0422** | | **0.0721** | | **0.469** | | **0.00315** | | **0.107** | |
| | B-241-35 | 4/3/18 | PES | ESC | 35 | 4.08 | – | | – | | – | | 0.000313 | U | 0.000502 | U | 0.000344 | U | 0.000808 | U | **0.00290** | **J+** | **0.000891** | **J+** | **0.00791** | | **0.00103** | **J+** | **0.0114** | |
| | B-241-40 | 4/3/18 | PES | ESC | 40 | -0.92 | – | | – | | – | | 0.000296 | U | 0.000476 | U | 0.000326 | U | 0.000766 | U | **0.00525** | | **0.00280** | | **0.0154** | | 0.000290 | U | **0.00660** | |
| | B-241-45 | 4/3/18 | PES | ESC | 45 | -5.92 | – | | – | | – | | **0.000370** | **J+** | 0.000478 | U | 0.000327 | U | 0.000768 | U | **0.0263** | **J+** | **0.00580** | **J+** | **1.37** | | **0.0398** | | **1.14** | |
| | B-241-50 | 4/4/18 | PES | ESC | 50 | -10.92 | – | | – | | – | | 0.000304 | U | 0.000489 | U | 0.000335 | U | 0.000787 | U | **28.3** | | **4.69** | | **7.44** | | **0.0330** | | **0.488** | |
| | B-241-55 | 4/4/18 | PES | ESC | 55 | -15.92 | – | | – | | – | | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000813 | U | **7.75** | | **2.11** | | **2.01** | | **0.00119** | | **0.0575** | |
| | B-241-60 | 4/3/18 | PES | ESC | 60 | -20.92 | – | | – | | – | | 0.000302 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | **0.0191** | | **0.00284** | | **0.00708** | | 0.000296 | U | **0.00382** | |
| | B-241-65 | 4/3/18 | PES | ESC | 65 | -25.92 | – | | – | | – | | **0.000470** | **J** | **0.000883** | **J** | 0.000352 | U | 0.000826 | U | **17.2** | | **0.699** | | **0.0585** | | **0.000642** | **J** | **0.0156** | |
| | B-241-70 | 4/3/18 | PES | ESC | 70 | -30.92 | – | | – | | – | | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | **0.0301** | | **0.00161** | | **0.0186** | | 0.000305 | U | **0.00422** | |
| | B-241-75 | 4/3/18 | PES | ESC | 75 | -35.92 | – | | – | | – | | 0.000315 | U | 0.000506 | U | 0.000346 | U | 0.000814 | U | **0.147** | **J+** | **0.0513** | **J+** | **0.358** | | **0.000813** | **J+** | **0.0301** | **J+** |
| | B-241-80 | 4/4/18 | PES | ESC | 80 | -40.92 | – | | – | | – | | 0.000310 | U | 0.000499 | U | 0.000341 | U | 0.000802 | U | **0.0295** | | **0.00759** | | **0.0508** | | 0.000303 | U | **0.00387** | |
| B-242 | B-242-5 | 4/4/18 | PES | ESC | 5 | 33.84 | – | | – | | – | | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000758 | U | **0.0116** | | **0.00647** | | **0.00494** | | 0.000287 | U | 0.000316 | U |
| | B-242-10 | 4/4/18 | PES | ESC | 10 | 28.84 | – | | – | | – | | 0.000296 | U | 0.000475 | U | 0.000325 | U | 0.000764 | U | **0.0783** | | **0.00835** | | **0.00156** | | 0.000289 | U | 0.000319 | U |
| | B-242-15 | 4/4/18 | PES | ESC | 15 | 23.84 | – | | – | | – | | 0.000315 | U | 0.000506 | U | 0.000346 | U | 0.000814 | U | **1.97** | | **0.0304** | | **0.00483** | | 0.000308 | U | 0.000339 | U |
| | B-242-20 | 4/4/18 | PES | ESC | 20 | 18.84 | – | | – | | – | | 0.000306 | U | 0.000492 | U | 0.000336 | U | 0.000791 | U | **6.61** | | **0.0335** | | **0.00878** | | 0.000299 | U | 0.000330 | U |
| | B-242-25 | 4/4/18 | PES | ESC | 25 | 13.84 | – | | – | | – | | 0.0298 | U | 0.0478 | U | 0.0327 | U | 0.0769 | U | **2.05** | | 0.0308 | U | 0.0259 | U | 0.0291 | U | 0.0321 | U |
| | B-242-30 | 4/4/18 | PES | ESC | 30 | 8.84 | – | | – | | – | | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000781 | U | **0.205** | | **0.000348** | **J** | **0.00101** | **J** | 0.000295 | U | **0.00828** | |
| | B-242-35 | 4/4/18 | PES | ESC | 35 | 3.84 | – | | – | | – | | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | **0.00754** | | 0.000321 | U | **0.000439** | **J** | 0.000304 | U | 0.000335 | U |
| | B-242-40 | 4/4/18 | PES | ESC | 40 | -1.16 | – | | – | | – | | 0.000295 | U | 0.000475 | U | 0.000325 | U | 0.000764 | U | **0.0298** | | **0.00181** | | **0.00272** | | 0.000289 | U | **0.000782** | **J** |
| | B-242-45 | 4/4/18 | PES | ESC | 45 | -6.16 | – | | – | | – | | 0.000312 | U | 0.000502 | U | 0.000344 | U | 0.000807 | U | **0.00909** | | 0.000323 | U | 0.000272 | U | 0.000305 | U | 0.000337 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-242 (continued) | B-242-50 | 4/4/18 | PES | ESC | 50 | -11.16 | – | | – | – | 0.000302 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | **0.0273** | | 0.000312 | U | 0.000263 | U | 0.000296 | U | 0.000326 | U |
| | B-910-50 | 4/4/18 | PES | ESC | 50 (dup) | -11.16 | – | | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.0276** | | 0.000313 | U | 0.000264 | U | 0.000296 | U | 0.000326 | U |
| | B-242-55 | 4/4/18 | PES | ESC | 55 | -16.16 | – | | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.0300** | | 0.000306 | U | 0.000258 | U | 0.000290 | U | 0.000320 | U |
| | B-242-60 | 4/4/18 | PES | ESC | 60 | -21.16 | – | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.0303** | | 0.000308 | U | 0.000259 | U | 0.000291 | U | 0.000321 | U |
| | B-242-65 | 4/4/18 | PES | ESC | 65 | -26.16 | – | | – | – | 0.000292 | U | 0.000470 | U | 0.000322 | U | 0.000756 | U | **0.00172** | | 0.000302 | U | 0.000254 | U | 0.000286 | U | 0.000315 | U |
| | B-242-70 | 4/4/18 | PES | ESC | 70 | -31.16 | – | | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | 0.000316 | U | 0.000320 | U | 0.000269 | U | 0.000302 | U | 0.000333 | U |
| | B-242-75 | 4/4/18 | PES | ESC | 75 | -36.16 | – | | – | – | 0.000300 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | **0.0478** | **J+** | **0.000770** | **J+** | **0.00118** | **J+** | 0.000293 | U | 0.000323 | U |
| | B-242-80 | 4/4/18 | PES | ESC | 80 | -41.16 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | **0.00122** | | 0.000323 | U | 0.000272 | U | 0.000306 | U | 0.000337 | U |
| B-243 | B-243-5 | 3/29/18 | PES | ESC | 5 | 34.88 | 0.0394 | U | – | – | 0.000314 | U | 0.000504 | U | 0.000345 | U | 0.000811 | U | **0.0560** | | 0.000324 | U | 0.000273 | U | 0.000307 | U | 0.000338 | U |
| | B-243-10 | 3/29/18 | PES | ESC | 10 | 29.88 | **0.619** | | – | – | 0.000307 | U | 0.000493 | U | 0.000337 | U | 0.000793 | U | **6.96** | | **0.00115** | | **0.000267** | **J** | 0.000300 | U | 0.000331 | U |
| | B-243-15 | 3/29/18 | PES | ESC | 15 | 24.88 | **1.64** | **J** | – | – | 0.00764 | U | 0.0122 | U | 0.00840 | U | 0.0197 | U | **0.888** | | 0.00790 | U | 0.00665 | U | 0.00747 | U | 0.00824 | U |
| | B-243-20 | 3/29/18 | PES | ESC | 20 | 19.88 | **1.11** | | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000805 | U | **25.3** | | **0.0563** | **J+** | 0.000271 | U | 0.000304 | U | 0.000336 | U |
| | B-243-25 | 3/29/18 | PES | ESC | 25 | 14.88 | **0.568** | | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | **6.66** | | **0.0547** | | 0.000262 | U | 0.000294 | U | 0.000324 | U |
| | B-243-30 | 3/29/18 | PES | ESC | 30 | 9.88 | **0.586** | | – | – | 0.000294 | U | 0.000473 | U | 0.000323 | U | 0.000760 | U | **6.12** | | **0.0763** | | 0.000256 | U | 0.000287 | U | 0.000317 | U |
| | B-243-35 | 3/29/18 | PES | ESC | 35 | 4.88 | **0.491** | | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | **11.0** | | **0.0967** | | **0.0121** | | 0.000292 | U | 0.000322 | U |
| | B-243-42 | 3/29/18 | PES | ESC | 42 | -2.12 | **0.724** | | – | – | 0.000295 | U | 0.000474 | U | 0.000325 | U | 0.000763 | U | **9.04** | | **0.834** | | **1.40** | | **0.000783** | **J** | **0.0160** | |
| | B-243-45 | 3/29/18 | PES | ESC | 45 | -5.12 | **0.820** | | – | – | 0.000293 | U | 0.000470 | U | 0.000322 | U | 0.000756 | U | **12.2** | | **1.87** | | **0.569** | | **0.000462** | **J** | **0.00310** | |
| | B-243-50 | 3/29/18 | PES | ESC | 50 | -10.12 | **5.12** | | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | **29.0** | **J** | **7.72** | | **16.0** | | **0.00868** | | **0.292** | |
| | IW-908-50 | 3/29/18 | PES | ESC | 50 (dup) | -10.12 | – | | – | – | 0.000305 | U | **0.000500** | **J** | 0.000336 | U | 0.000790 | U | **41.0** | **J** | **6.18** | | **15.9** | | **0.0113** | | **0.404** | **J** |
| | B-243-55 | 3/29/18 | PES | ESC | 55 | -15.12 | – | | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | U | **14.4** | | **0.0810** | | **2.33** | | **0.00776** | | **0.307** | **J** |
| | B-243-60 | 3/29/18 | PES | ESC | 60 | -20.12 | – | | – | – | 0.000309 | U | 0.000496 | U | 0.000339 | U | 0.000798 | U | **10.3** | | **2.34** | | **6.30** | | **0.00479** | | **0.181** | **J** |
| | B-243-65 | 3/29/18 | PES | ESC | 65 | -25.12 | – | | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **1.49** | | **0.205** | | **0.530** | | **0.000888** | **J** | 0.0607 | UJ |
| | B-243-70 | 3/29/18 | PES | ESC | 70 | -30.12 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | **0.00378** | | 0.000323 | U | 0.000882 | U | 0.000306 | U | **0.00207** | |
| | B-243-75 | 3/29/18 | PES | ESC | 75 | -35.12 | – | | – | – | 0.000322 | U | 0.000517 | U | 0.000354 | U | 0.000832 | U | **0.0290** | | **0.00173** | | **0.00440** | | 0.000315 | U | 0.000347 | U |
| | B-243-80 | 3/29/18 | PES | ESC | 80 | -40.12 | – | | – | – | 0.000328 | U | 0.000527 | U | 0.000361 | U | 0.000848 | U | **0.0300** | | **0.00253** | | **0.00775** | | 0.000321 | U | **0.000385** | **J** |
| B-244 | B-244-5 | 3/28/18 | PES | ESC | 5 | 33.79 | – | | – | – | **0.00411** | | **0.00127** | **J** | 0.000375 | U | **0.00133** | **J** | **0.0205** | | **0.00511** | | **0.00740** | | 0.000333 | U | **0.00137** | |
| | B-244-10 | 3/28/18 | PES | ESC | 10 | 28.79 | – | | – | – | **0.000911** | **J** | **0.000594** | **J** | 0.000354 | U | 0.000832 | U | **0.00727** | | **0.000767** | **J** | **0.00128** | | 0.000315 | U | **0.000526** | **J** |
| | B-244-15 | 3/28/18 | PES | ESC | 15 | 23.79 | – | | – | – | 0.000308 | U | 0.000495 | U | 0.000339 | U | 0.000796 | U | **0.00254** | | **0.000615** | **J** | **0.000833** | **J** | 0.000301 | U | **0.00102** | **J** |
| | B-244-20 | 3/28/18 | PES | ESC | 20 | 18.79 | – | | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | **0.000760** | **J** | **0.00185** | | **0.00537** | | **0.000309** | **J** | **0.000575** | **J** |
| | B-244-25 | 3/28/18 | PES | ESC | 25 | 13.79 | – | | – | – | 0.000286 | U | 0.000459 | U | 0.000314 | U | 0.000739 | U | 0.000292 | U | **0.000296** | **J** | **0.00556** | | 0.000280 | U | **0.00150** | |
| | B-244-30 | 3/28/18 | PES | ESC | 30 | 8.79 | – | | – | – | 0.000295 | U | 0.000475 | U | 0.000325 | U | 0.000763 | U | **0.00210** | | 0.000305 | U | **0.0243** | | **0.00106** | **J** | **0.00144** | |
| | B-244-35 | 3/28/18 | PES | ESC | 35 | 3.79 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000802 | U | **0.0158** | | **0.00357** | | **0.0522** | | **0.00211** | | **0.00668** | |
| | B-244-40 | 3/28/18 | PES | ESC | 40 | -1.21 | – | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.00131** | | **0.000382** | **J** | **2.00** | | **0.0665** | | **1.35** | |
| | B-244-42 | 3/28/18 | PES | ESC | 42 | -3.21 | – | | – | – | 0.00759 | U | 0.0122 | U | 0.00835 | U | 0.0196 | U | **0.237** | | **0.0208** | **J** | **0.886** | | **0.0882** | **J** | **0.256** | |
| | B-244-45 | 3/28/18 | PES | ESC | 45 | -6.21 | – | | – | – | 0.000304 | U | 0.000488 | U | 0.000334 | U | 0.000786 | U | **0.0323** | | **0.0212** | | **5.01** | | **0.0619** | | **0.858** | |
| | B-244-50 | 3/28/18 | PES | ESC | 50 | -11.21 | – | | – | – | 0.000299 | U | 0.000480 | U | 0.000328 | U | 0.000772 | U | **0.0352** | | **0.0107** | | **4.57** | | **0.0339** | | **0.0824** | |
| | B-244-55 | 3/28/18 | PES | ESC | 55 | -16.21 | – | | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | **0.0635** | | **0.0408** | | **6.54** | | **0.0502** | | **0.0120** | |
| | B-244-60 | 3/28/18 | PES | ESC | 60 | -21.21 | – | | – | – | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | **5.05** | | **0.127** | | **4.83** | | **0.0297** | | **0.0104** | |
| | B-244-65 | 3/28/18 | PES | ESC | 65 | -26.21 | – | | – | – | **0.00184** | | **0.000670** | **J** | 0.000337 | U | 0.000791 | U | **0.504** | | **0.0970** | | **0.918** | | **0.0169** | | **0.0244** | |
| | B-244-70 | 3/28/18 | PES | ESC | 70 | -31.21 | – | | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000758 | U | **0.0620** | **J** | **0.0320** | **J** | **6.08** | | **0.0240** | | **0.00878** | **J** |
| | IW-907-70 | 3/28/18 | PES | ESC | 70 (dup) | -31.21 | – | | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000760 | U | **0.0176** | **J** | **0.00987** | **J** | **6.39** | | **0.0209** | | **0.0139** | **J** |
| | B-244-75 | 3/28/18 | PES | ESC | 75 | -36.21 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **0.00375** | | **0.00183** | | **5.77** | | **0.00337** | | **0.0252** | |
| | B-244-80 | 3/28/18 | PES | ESC | 80 | -41.21 | – | | – | – | 0.000314 | U | 0.000505 | U | 0.000345 | U | 0.000811 | U | **0.00219** | | **0.000678** | **J** | **0.0188** | | **0.000314** | **J** | **0.00399** | |
| B-245 | B-245-5 | 3/28/18 | PES | ESC | 5 | 34.90 | – | | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000760 | U | **0.00371** | | 0.000304 | U | **0.000490** | **J** | 0.000287 | U | **0.00142** | |
| | B-245-10 | 3/28/18 | PES | ESC | 10 | 29.90 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **0.00419** | | 0.000320 | U | **0.00132** | | 0.000303 | U | 0.000334 | U |
| | B-245-15 | 3/28/18 | PES | ESC | 15 | 24.90 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | **0.0317** | | **0.00188** | | **0.00502** | | 0.000306 | U | **0.000458** | **J** |
| | B-245-20 | 3/28/18 | PES | ESC | 20 | 19.90 | – | | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | U | **0.00746** | | **0.000868** | **J** | **0.00265** | | 0.000285 | U | **0.000458** | **J** |
| | B-245-25 | 3/28/18 | PES | ESC | 25 | 14.90 | – | | – | – | 0.000306 | U | 0.000491 | U | 0.000336 | U | 0.000790 | U | **0.00364** | | **0.000464** | **J** | **0.00148** | | 0.000299 | U | **0.000466** | **J** |
| | B-245-30 | 3/29/18 | PES | ESC | 30 | 9.90 | – | | – | – | 0.000580 | U | 0.000934 | U | 0.000638 | U | **0.00150** | | **0.0737** | | **0.145** | | **4.73** | | **0.00437** | | **0.224** | **J** |
| | B-245-35 | 3/29/18 | PES | ESC | 35 | 4.90 | – | | – | – | **0.000419** | **J** | 0.000488 | U | 0.000334 | U | 0.000785 | U | **0.00623** | | **0.00152** | | **0.0564** | | 0.000297 | U | **0.0194** | |
| | B-245-40 | 3/29/18 | PES | ESC | 40 | -0.10 | – | | – | – | 0.000301 | U | 0.000483 | U | 0.000331 | U | 0.000777 | U | **0.0149** | | **0.00287** | | **0.107** | | 0.000294 | U | **0.0204** | |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO 30 | DRO 2,000 | ORO 2,000 | Benzene 0.030 | | Toluene 0.273 | | Ethylbenzene 0.343 | | Total Xylenes 0.831 | | PCE 0.025 | | TCE 0.030 | | cDCE 0.050 | | tDCE 0.050 | | VC 0.050 | |
| B-245 (continued) | B-245-45 | 3/29/18 | PES | ESC | 45 | -5.10 | | | | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000776 | U | **0.00112** | | **0.000720** | **J** | **0.00725** | | 0.000293 | U | **0.00491** | |
| | B-245-50 | 3/29/18 | PES | ESC | 50 | -10.10 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000791 | U | **0.00546** | | **0.00370** | | **0.0159** | | 0.000299 | U | **0.0398** | |
| | B-245-55 | 3/29/18 | PES | ESC | 55 | -15.10 | – | – | – | 0.000304 | U | 0.000489 | U | 0.000335 | U | 0.000787 | U | **0.00226** | | **0.00313** | | **0.0583** | | 0.000298 | U | **0.00776** | |
| | B-245-60 | 3/29/18 | PES | ESC | 60 | -20.10 | – | – | – | **0.000503** | **J** | 0.000465 | U | 0.000318 | U | 0.000748 | U | **0.00176** | | **0.00181** | | **0.0180** | | 0.000283 | U | **0.00999** | |
| | B-245-65 | 3/29/18 | PES | ESC | 65 | -25.10 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | **0.000656** | **J** | **0.000449** | **J** | **0.0101** | | 0.000302 | U | **0.00929** | |
| | B-245-70 | 3/29/18 | PES | ESC | 70 | -30.10 | – | – | – | 0.000318 | U | 0.000325 | U | 0.000349 | U | 0.000821 | U | 0.000325 | U | 0.000328 | U | **0.000656** | **J** | 0.000311 | U | **0.00151** | |
| | B-245-75 | 3/29/18 | PES | ESC | 75 | -35.10 | – | – | – | 0.000304 | U | 0.000489 | U | 0.000335 | U | 0.000787 | U | 0.000311 | U | 0.000314 | U | **0.000841** | **J** | 0.000298 | U | **0.000623** | **J** |
| | B-245-80 | 3/29/18 | PES | ESC | 80 | -40.10 | – | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | 0.000320 | U | 0.000323 | U | **0.000946** | **J** | 0.000306 | U | **0.000863** | **J** |
| B-246 | B-246-6 | 5/11/18 | PES | ESC | 6 | 33.90 | – | – | – | 0.000475 | U | 0.00148 | U | 0.000629 | U | 0.00567 | U | **0.00396** | | **0.00192** | | **0.00324** | | 0.00170 | U | 0.000811 | U |
| | B-246-11 | 5/11/18 | PES | ESC | 11 | 28.90 | – | – | – | 0.000472 | U | 0.00148 | U | 0.000626 | U | 0.00564 | U | **0.0271** | | **0.00638** | | **0.00531** | | 0.00169 | U | 0.000807 | U |
| | B-246-15 | 5/11/18 | PES | ESC | 15 | 24.90 | – | – | – | **0.000583** | **J** | **0.00318** | **J** | 0.000599 | U | 0.00540 | U | **0.0616** | | **0.0132** | | **0.0196** | | 0.00162 | U | 0.000772 | U |
| | B-246-25 | 5/11/18 | PES | ESC | 25 | 14.90 | – | – | – | 0.000447 | U | 0.00214 | UJ | 0.000593 | U | 0.00534 | U | **12.7** | | **0.448** | | **0.157** | | **0.00745** | | 0.000764 | U |
| | B-246-30 | 5/11/18 | PES | ESC | 30 | 9.90 | – | – | – | 0.000471 | U | **0.00172** | **J** | 0.000624 | U | 0.00563 | U | **6.98** | | **0.162** | | **3.36** | | **0.00860** | | **0.0308** | |
| | B-246-35 | 5/11/18 | PES | ESC | 35 | 4.90 | – | – | – | 0.000461 | U | 0.00144 | U | 0.000611 | U | 0.00551 | U | **0.00548** | | 0.000461 | U | **0.00505** | | 0.00165 | U | 0.000787 | U |
| | B-246-40 | 5/11/18 | PES | ESC | 40 | -0.10 | – | – | – | 0.000453 | U | 0.00142 | U | 0.000600 | U | 0.00541 | U | **4.07** | | **0.280** | | **0.255** | | 0.00162 | U | **0.00735** | |
| | B-246-43 | 5/11/18 | PES | ESC | 43 | -3.10 | – | – | – | 0.000437 | U | **0.00143** | **J** | 0.000580 | U | 0.00523 | U | **0.00312** | | **0.00780** | | **0.330** | | 0.00156 | U | **0.00339** | |
| | B-246-45 | 5/11/18 | PES | ESC | 45 | -5.10 | – | – | – | 0.000482 | U | **0.00477** | **J** | 0.000639 | U | 0.00576 | U | 0.000836 | U | **0.000999** | **J** | **0.00410** | | 0.00172 | U | 0.000823 | U |
| | B-246-50 | 5/11/18 | PES | ESC | 50 | -10.10 | – | – | – | 0.000450 | U | **0.00215** | **J** | 0.000596 | U | 0.00538 | U | **0.00576** | | **0.000767** | **J** | **0.00150** | **J** | 0.00161 | U | 0.000768 | U |
| | B-246-55 | 5/11/18 | PES | ESC | 55 | -15.10 | – | – | – | 0.000458 | U | **0.00446** | **J** | 0.000607 | U | 0.00547 | U | **0.00372** | | **0.000650** | **J** | **0.00111** | **J** | 0.00164 | U | 0.000782 | U |
| | B-246-60 | 5/11/18 | PES | ESC | 60 | -20.10 | – | – | – | 0.000454 | U | **0.00208** | **J** | 0.000601 | U | 0.00542 | U | **0.00493** | | **0.000723** | **J** | **0.00153** | **J** | 0.00162 | U | 0.000775 | U |
| | B-246-65 | 5/11/18 | PES | ESC | 65 | -25.10 | – | – | – | 0.000495 | U | **0.00178** | **J** | 0.000656 | U | 0.00591 | U | **0.00178** | **J** | 0.000495 | U | **0.0338** | | 0.00177 | U | **0.0154** | |
| | B-246-70 | 5/11/18 | PES | ESC | 70 | -30.10 | – | – | – | 0.000445 | UJ | **0.00520** | **J** | 0.000589 | UJ | 0.00531 | UJ | **0.223** | **J** | **0.239** | **J** | **0.232** | **J** | 0.00159 | UJ | **0.00822** | **J** |
| | B-246-75 | 5/11/18 | PES | ESC | 75 | -35.10 | – | – | – | 0.000463 | U | **0.00494** | **J** | 0.000614 | U | 0.00554 | U | **0.00130** | **J** | 0.000463 | U | 0.000799 | U | 0.00166 | U | 0.000791 | U |
| | B-246-80 | 5/11/18 | PES | ESC | 80 | -40.10 | – | – | – | 0.000452 | U | 0.00141 | U | 0.000599 | U | 0.00540 | U | 0.000791 | U | 0.000452 | U | 0.000779 | U | 0.00162 | U | 0.000771 | U |
| | B-246-100 | 5/11/18 | PES | ESC | 100 | -60.10 | – | – | – | **0.000776** | **J** | **0.00231** | **J** | 0.000793 | UJ | 0.00716 | UJ | **0.0144** | **J** | **0.00359** | **J** | **0.0150** | **J** | 0.00214 | UJ | 0.00102 | UJ |
| B-247 | B-247-5 | 4/20/18 | PES | ESC | 5 | 34.73 | – | – | – | 0.000306 | U | 0.000493 | U | 0.000337 | U | 0.000792 | U | **0.0594** | | **0.00692** | | **0.0478** | | **0.000491** | **J** | **0.00114** | |
| | B-247-10 | 4/20/18 | PES | ESC | 10 | 29.73 | – | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | **0.00586** | | **0.00175** | | **0.00459** | | 0.000304 | U | **0.00173** | |
| | B-247-15 | 4/20/18 | PES | ESC | 15 | 24.73 | – | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | **0.00415** | | **0.00482** | | **0.00577** | | 0.000293 | U | **0.00221** | |
| | B-247-20 | 4/20/18 | PES | ESC | 20 | 19.73 | – | – | – | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | **0.00432** | | **0.000887** | **J** | **0.00682** | | 0.000295 | U | **0.00718** | |
| | B-247-25 | 4/20/18 | PES | ESC | 25 | 14.73 | – | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000759 | U | **0.00244** | | **0.000327** | **J** | **0.000271** | **J** | 0.000287 | U | **0.000411** | **J** |
| | B-247-30 | 4/20/18 | PES | ESC | 30 | 9.73 | – | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | **0.000984** | **J** | 0.000307 | U | **0.000409** | **J** | 0.000291 | U | **0.000651** | **J** |
| | B-247-35 | 4/20/18 | PES | ESC | 35 | 4.73 | – | – | – | 0.000298 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | **0.00128** | | 0.000307 | U | **0.000430** | **J** | **0.000452** | **J** | 0.000321 | U |
| | B-247-40 | 4/20/18 | PES | ESC | 40 | -0.27 | – | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000784 | U | **0.00427** | | **0.00104** | **J** | **0.00144** | | **0.000386** | **J** | **0.000395** | **J** |
| | B-247-45 | 4/20/18 | PES | ESC | 45 | -5.27 | – | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | U | **0.00230** | | **0.000708** | **J** | **0.00979** | | **0.000306** | **J** | **0.00279** | |
| | B-247-50 | 4/20/18 | PES | ESC | 50 | -10.27 | – | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000768 | U | 0.000304 | U | 0.000307 | U | **4.71** | | **0.0711** | | **0.779** | |
| | B-247-55 | 4/20/18 | PES | ESC | 55 | -15.27 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000788 | U | 0.000312 | U | 0.000315 | U | **0.0125** | | **0.000318** | **J** | **0.0367** | |
| | B-247-60 | 4/20/18 | PES | ESC | 60 | -20.27 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000752 | U | 0.000297 | U | 0.000301 | U | **0.0754** | | **0.000984** | **J** | **0.0672** | |
| | B-247-65 | 4/20/18 | PES | ESC | 65 | -25.27 | – | – | – | **0.000434** | **J** | 0.000484 | U | 0.000331 | U | 0.000779 | U | **0.00103** | **J** | 0.000311 | U | **0.00500** | | 0.000295 | U | 0.000779 | U |
| | B-247-70 | 4/20/18 | PES | ESC | 70 | -30.27 | – | – | – | 0.000303 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | 0.000309 | U | 0.000313 | U | **0.000306** | **J** | 0.000296 | U | 0.000326 | U |
| | B-247-75 | 4/20/18 | PES | ESC | 75 | -35.27 | – | – | – | 0.000309 | U | 0.000496 | U | 0.000340 | U | 0.000798 | U | 0.000316 | U | 0.000319 | U | **0.00237** | | 0.000302 | U | **0.0123** | |
| | B-247-80 | 4/20/18 | PES | ESC | 80 | -40.27 | – | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000780 | U | 0.000309 | U | 0.000312 | U | **0.00249** | | 0.000295 | U | **0.00344** | |
| | B-909-20 | 4/20/18 | PES | ESC | 80 (dup) | -40.27 | – | – | – | 0.000292 | U | 0.000470 | U | 0.000321 | U | 0.000756 | U | 0.000299 | U | 0.000302 | U | **0.00164** | | 0.000286 | U | **0.00310** | |
| B-248 | B-248-5 | 4/23/18 | PES | ESC | 5 | 46.85 | – | – | – | 0.000308 | U | 0.000495 | U | 0.0003390 | U | 0.000797 | U | **0.00318** | | 0.000318 | UJ | 0.000268 | U | 0.000301 | U | 0.000332 | U |
| | B-248-10 | 4/23/18 | PES | ESC | 10 | 41.85 | – | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | UJ | **0.0178** | | **0.00126** | **J** | 0.000511 | U | 0.000294 | U | 0.000324 | U |
| | B-248-15 | 4/23/18 | PES | ESC | 15 | 36.85 | – | – | – | 0.000440 | U | 0.00137 | U | 0.000583 | U | 0.00526 | U | **0.118** | | **0.00378** | | 0.00113 | U | 0.000157 | U | 0.000751 | U |
| | B-248-20 | 4/23/18 | PES | ESC | 20 | 31.85 | – | – | – | 0.000292 | U | 0.00469 | U | 0.000321 | U | 0.000755 | UJ | **0.0238** | | **0.00233** | **J** | **0.00426** | **J+** | 0.000286 | U | 0.000315 | U |
| | B-248-25 | 4/23/18 | PES | ESC | 25 | 26.85 | – | – | – | 0.000469 | U | 0.00147 | U | 0.000622 | U | 0.005610 | U | **0.621** | | **0.0667** | | **0.0426** | **J+** | 0.00168 | U | 0.000801 | U |
| | B-248-30 | 4/23/18 | PES | ESC | 30 | 21.85 | – | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000755 | UJ | **0.00255** | **J** | **0.00297** | **J** | **0.00122** | | 0.000285 | U | 0.000315 | U |
| | B-248-35 | 4/23/18 | PES | ESC | 35 | 16.85 | – | – | – | **0.000442** | **J** | **0.00178** | **J** | 0.000574 | U | 0.00518 | U | **0.122** | | **0.0456** | | **0.142** | **J+** | 0.00155 | U | 0.000740 | U |
| | B-248-40 | 4/23/18 | PES | ESC | 40 | 11.85 | – | – | – | **0.000463** | **J** | 0.00139 | U | 0.000591 | U | 0.00533 | U | **0.200** | | **0.0599** | | **0.0429** | **J+** | 0.00159 | U | **0.00574** | |
| | B-248-45 | 4/23/18 | PES | ESC | 45 | 6.85 | – | – | – | **0.000865** | **J** | **0.00143** | **J** | 0.000605 | U | 0.00546 | U | **0.0248** | | **0.00566** | | **0.00492** | **J+** | 0.00163 | U | 0.000780 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-248 (continued) | B-248-50 | 4/23/18 | PES | ESC | 50 | 1.85 | – | | – | | – | | **0.000945** | **J-** | **0.00163** | **J-** | 0.000579 | UJ | 0.00523 | UJ | **0.0109** | **J-** | **0.00177** | **J-** | **0.00350** | **J+** | 0.00156 | UJ | 0.00167 | U |
| | B-248-55 | 4/23/18 | PES | ESC | 55 | -3.15 | – | | – | | – | | 0.000320 | U | 0.000514 | U | 0.000352 | U | 0.000826 | UJ | 0.000327 | U | 0.000330 | UJ | 0.000278 | U | 0.000312 | U | 0.000344 | U |
| | B-248-60 | 4/23/18 | PES | ESC | 60 | -8.15 | – | | – | | – | | **0.000549** | **J** | 0.00134 | U | 0.000568 | U | 0.00512 | U | **0.167** | | **0.0244** | | **0.553** | **J+** | **0.0144** | | **0.0121** | |
| | B-248-65 | 4/23/18 | PES | ESC | 65 | -13.15 | – | | – | | – | | 0.000492 | U | 0.00154 | U | 0.000652 | U | 0.00588 | U | 0.000861 | U | 0.000492 | U | **0.0215** | **J+** | 0.00176 | U | **0.00629** | |
| | B-248-70 | 4/23/18 | PES | ESC | 70 | -18.15 | – | | – | | – | | 0.000460 | U | 0.00144 | U | 0.000609 | U | 0.00549 | U | 0.000804 | U | 0.000460 | U | **0.00436** | **J+** | 0.00164 | U | **0.00315** | |
| | B-248-75 | 4/23/18 | PES | ESC | 75 | -23.15 | – | | – | | – | | 0.000449 | UJ | 0.00140 | UJ | 0.00595 | UJ | 0.00537 | UJ | 0.000786 | UJ | 0.000449 | UJ | **0.136** | **J+** | 0.00161 | UJ | **0.0124** | **J-** |
| | B-248-80 | 4/23/18 | PES | ESC | 80 | -28.15 | – | | – | | – | | 0.000324 | U | 0.000521 | U | 0.000357 | U | 0.000839 | UJ | 0.000332 | UJ | **0.000439** | **J** | **0.00448** | | 0.000317 | U | **0.00140** | |
| | B-910-20 | 4/23/18 | PES | ESC | 80 (dup) | -28.15 | – | | – | | – | | 0.000333 | U | 0.000536 | U | 0.000367 | U | 0.000861 | UJ | 0.000341 | U | 0.000344 | UJ | 0.000290 | U | 0.000326 | U | **0.000581** | **J** |
| | B-248-85 | 4/23/18 | PES | ESC | 85 | -33.15 | – | | – | | – | | 0.000328 | U | 0.000527 | U | 0.000361 | U | 0.000848 | UJ | 0.000335 | U | 0.000339 | UJ | **0.00261** | | 0.000321 | U | **0.000378** | **J** |
| | B-248-90 | 4/23/18 | PES | ESC | 90 | -38.15 | – | | – | | – | | 0.000323 | U | 0.000519 | U | 0.000355 | U | 0.000835 | UJ | 0.000330 | U | 0.000334 | UJ | **0.000415** | **J** | 0.000316 | U | 0.000348 | U |
| | B-248-95 | 4/23/18 | PES | ESC | 95 | -43.15 | – | | – | | – | | 0.000337 | U | 0.000541 | U | 0.000370 | U | 0.000870 | UJ | 0.000344 | U | 0.000348 | UJ | 0.000293 | U | 0.000329 | U | 0.000363 | U |
| | B-248-100 | 4/23/18 | PES | ESC | 100 | -48.15 | – | | – | | – | | 0.000328 | U | 0.000526 | U | 0.000360 | U | 0.000847 | UJ | 0.000335 | U | 0.000338 | UJ | **0.00541** | | 0.000320 | U | **0.000881** | **J** |
| | B-248-105 | 4/23/18 | PES | ESC | 105 | -53.15 | – | | – | | – | | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | UJ | **0.0102** | | **0.0562** | **J** | **0.00880** | | **0.00141** | | 0.000314 | U |
| | B-248-110 | 4/23/18 | PES | ESC | 110 | -58.15 | – | | – | | – | | 0.000459 | U | 0.00143 | U | 0.000608 | U | 0.00549 | U | 0.00185 | U | **0.0113** | **U** | **0.00624** | **J+** | **0.00379** | **J** | 0.000784 | U |
| | B-248-115 | 4/23/18 | PES | ESC | 115 | -63.15 | – | | – | | – | | 0.000316 | U | 0.000507 | U | 0.000347 | U | 0.000816 | UJ | 0.00125 | UJ | **0.00615** | **J** | **0.00480** | | 0.000309 | U | **0.000418** | **J** |
| DB01 | DB01-10 | 3/18/13 | SES | F&BI | 10 | 30.00 | – | | – | | – | | – | | – | | – | | – | | **0.042** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB01-20 | 3/18/13 | SES | F&BI | 20 | 20.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB01-30 | 3/18/13 | SES | F&BI | 30 | 10.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB01-40 | 3/18/13 | SES | F&BI | 40 | 0.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB02 | DB02-10 | 3/18/13 | SES | F&BI | 10 | 26.00 | 2 | U | 50 | U | 250 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.06 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB02-15 | 3/18/13 | SES | F&BI | 15 | 21.00 | 2 | U | 50 | U | 250 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.06 | U | – | | – | | – | | – | | – | |
| | DB02-20 | 3/18/13 | SES | F&BI | 20 | 16.00 | – | | – | | – | | – | | – | | – | | – | | **0.22** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB02-30 | 3/18/13 | SES | F&BI | 30 | 6.00 | – | | – | | – | | – | | – | | – | | – | | **0.058** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB02-40 | 3/18/13 | SES | F&BI | 40 | -4.00 | – | | – | | – | | – | | – | | – | | – | | **2.0** | | **0.060** | | 0.05 | U | 0.05 | U | 0.05 | U |
| DB03 | DB03-05 | 3/27/13 | SES | F&BI | 5 | 35.00 | – | | – | | – | | – | | – | | – | | – | | **0.061** | | 0.06 | U | 0.1 | U | 0.1 | U | 0.1 | U |
| | DB03-20 | 3/27/13 | SES | F&BI | 20 | 20.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB03-35 | 3/27/13 | SES | F&BI | 35 | 5.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB03-45 | 3/27/13 | SES | F&BI | 45 | -5.00 | – | | – | | – | | – | | – | | – | | – | | **2.7** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB03-55 | 3/27/13 | SES | F&BI | 55 | -15.00 | – | | – | | – | | – | | – | | – | | – | | **3.6** | | **0.11** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB03-60 | 3/27/13 | SES | F&BI | 60 | -20.00 | – | | – | | – | | – | | – | | – | | – | | **3.4** | | **0.23** | | **0.15** | | 0.05 | U | 0.05 | U |
| DB04 | DB04-10 | 3/21/13 | SES | F&BI | 10 | 30.00 | – | | – | | – | | – | | – | | – | | – | | **0.17** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB04-20 | 3/21/13 | SES | F&BI | 20 | 20.00 | – | | – | | – | | – | | – | | – | | – | | **4.5** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB04-35 | 3/21/13 | SES | F&BI | 35 | 5.00 | – | | – | | – | | – | | – | | – | | – | | **8.0** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB04-45 | 3/21/13 | SES | F&BI | 45 | -5.00 | – | | – | | – | | – | | – | | – | | – | | **0.28** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB04-50 | 3/22/13 | SES | F&BI | 50 | -10.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB04-60 | 3/22/13 | SES | F&BI | 60 | -20.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB05 | DB05-10 | 3/26/13 | SES | F&BI | 10 | 42.80 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-20 | 3/26/13 | SES | F&BI | 20 | 32.80 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-30 | 3/26/13 | SES | F&BI | 30 | 22.80 | – | | – | | – | | – | | – | | – | | – | | **3.2** | | **0.040** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-40 | 3/26/13 | SES | F&BI | 40 | 12.80 | – | | – | | – | | – | | – | | – | | – | | **14** | | **0.085** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-50 | 3/26/13 | SES | F&BI | 50 | 2.80 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-60 | 3/26/13 | SES | F&BI | 60 | -7.20 | – | | – | | – | | – | | – | | – | | – | | **0.34** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB05-70 | 3/26/13 | SES | F&BI | 70 | -17.20 | – | | – | | – | | – | | – | | – | | – | | **0.033** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB06 | DB06-10 | 3/25/13 | SES | F&BI | 10 | 41.80 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB06-25 | 3/25/13 | SES | F&BI | 25 | 26.80 | – | | – | | – | | – | | – | | – | | – | | **0.98** | | **0.033** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB06-35 | 3/25/13 | SES | F&BI | 35 | 16.80 | – | | – | | – | | – | | – | | – | | – | | **30** | | **0.26** | | **0.096** | | 0.05 | U | 0.05 | U |
| | DB06-45 | 3/25/13 | SES | F&BI | 45 | 6.80 | – | | – | | – | | – | | – | | – | | – | | **1.3** | | **0.036** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB06-55 | 3/25/13 | SES | F&BI | 55 | -3.20 | – | | – | | – | | – | | – | | – | | – | | **0.027** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB06-65 | 3/25/13 | SES | F&BI | 65 | -13.20 | – | | – | | – | | – | | – | | – | | – | | **0.029** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB06-75 | 3/25/13 | SES | F&BI | 75 | -23.20 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB07 | DB07-05 | 3/27/13 | SES | F&BI | 5 | 35.00 | – | | – | | – | | – | | – | | – | | – | | **2.7** | | **0.084** | | **0.076** | | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | 2,000 | 2,000 | 0.030 | 0.273 | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| DB07 (continued) | DB07-15 | 3/27/13 | SES | F&BI | 15 | 25.00 | – | – | – | – | – | – | – | **7.1** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB07-25 | 3/27/13 | SES | F&BI | 25 | 15.00 | – | – | – | – | – | – | – | **9.8** | | **0.067** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB07-35 | 3/28/13 | SES | F&BI | 35 | 5.00 | – | – | – | – | – | – | – | **16** | | **0.088** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB07-45 | 3/28/13 | SES | F&BI | 45 | -5.00 | – | – | – | – | – | – | – | **13** | | **0.72** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB07-50 | 3/28/13 | SES | F&BI | 50 | -10.00 | – | – | – | – | – | – | – | **7.3** | | **0.19** | | **0.16** | | 0.05 | U | 0.05 | U |
| | DB07-60 | 3/28/13 | SES | F&BI | 60 | -20.00 | – | – | – | – | – | – | – | **1.5** | | **0.92** | | **0.53** | | 0.05 | U | 0.05 | U |
| | DB07-70 | 3/28/13 | SES | F&BI | 70 | -30.00 | – | – | – | – | – | – | – | **5.0** | | **0.96** | | **0.41** | | 0.05 | U | 0.05 | U |
| DB08 | DB08-10 | 3/20/13 | SES | F&BI | 10 | 30.00 | – | – | – | – | – | – | – | **0.048** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB08-20 | 3/20/13 | SES | F&BI | 20 | 20.00 | – | – | – | – | – | – | – | **4.0** | | **0.19** | | **0.097** | | 0.05 | U | 0.05 | U |
| | DB08-35 | 3/20/13 | SES | F&BI | 35 | 5.00 | – | – | – | – | – | – | – | **4.5** | | **0.21** | | **0.94** | | 0.05 | U | 0.05 | U |
| | DB08-45 | 3/20/13 | SES | F&BI | 45 | -5.00 | – | – | – | – | – | – | – | **0.056** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB08-50 | 3/21/13 | SES | F&BI | 50 | -10.00 | – | – | – | – | – | – | – | **4.2** | | **0.25** | | **0.070** | | 0.05 | U | 0.05 | U |
| | DB08-60 | 3/21/13 | SES | F&BI | 60 | -20.00 | – | – | – | – | – | – | – | **0.51** | | **0.20** | | **0.080** | | 0.05 | U | 0.05 | U |
| | DB08-70 | 3/21/13 | SES | F&BI | 70 | -30.00 | – | – | – | – | – | – | – | **0.41** | | **0.040** | | 0.05 | U | 0.05 | U | 0.05 | U |
| DB09 | DB09-10 | 3/19/13 | SES | F&BI | 10 | 30.00 | – | – | – | – | – | – | – | **0.027** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB09-20 | 3/19/13 | SES | F&BI | 20 | 20.00 | – | – | – | – | – | – | – | **0.15** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB09-30 | 3/19/13 | SES | F&BI | 30 | 10.00 | – | – | – | – | – | – | – | **6.1** | | **0.22** | | **0.25** | | 0.05 | U | 0.05 | U |
| | DB09-40 | 3/19/13 | SES | F&BI | 40 | 0.00 | – | – | – | – | – | – | – | **1.3** | | **0.28** | | **0.18** | | 0.05 | U | 0.05 | U |
| | DB09-50 | 3/19/13 | SES | F&BI | 50 | -10.00 | – | – | – | – | – | – | – | **0.14** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB09-60 | 3/19/13 | SES | F&BI | 60 | -20.00 | – | – | – | – | – | – | – | **0.031** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB09-70 | 3/19/13 | SES | F&BI | 70 | -30.00 | – | – | – | – | – | – | – | **0.025** | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB10 | DB10-10 | 3/29/13 | SES | F&BI | 10 | 30.00 | – | – | – | – | – | – | – | **0.34** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB10-20 | 3/29/13 | SES | F&BI | 20 | 20.00 | – | – | – | – | – | – | – | **23** | | **0.11** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB10-35 | 3/29/13 | SES | F&BI | 35 | 5.00 | – | – | – | – | – | – | – | **35** | | **0.40** | | 0.5 | U | 0.5 | U | 0.5 | U |
| | DB10-45 | 3/29/13 | SES | F&BI | 45 | -5.00 | – | – | – | – | – | – | – | **57** | | 0.3 | U | 0.5 | U | 0.5 | U | 0.5 | U |
| | DB10-50 | 4/1/13 | SES | F&BI | 50 | -10.00 | – | – | – | – | – | – | – | **52** | | **0.26** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB10-60 | 4/1/13 | SES | F&BI | 60 | -20.00 | – | – | – | – | – | – | – | **2.0** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB10-70 | 4/1/13 | SES | F&BI | 70 | -30.00 | – | – | – | – | – | – | – | **1.8** | | **0.035** | | 0.05 | U | 0.05 | U | 0.05 | U |
| DB11 | DB11-15 | 4/2/13 | SES | F&BI | 15 | 36.80 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB11-25 | 4/2/13 | SES | F&BI | 25 | 26.80 | – | – | – | – | – | – | – | **0.028** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB11-35 | 4/2/13 | SES | F&BI | 35 | 16.80 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB11-45 | 4/2/13 | SES | F&BI | 45 | 6.80 | – | – | – | – | – | – | – | **15** | | **0.12** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB11-55 | 4/2/13 | SES | F&BI | 55 | -3.20 | – | – | – | – | – | – | – | **0.16** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB12 | DB12-10 | 4/3/13 | SES | F&BI | 10 | 30.00 | – | – | – | – | – | – | – | **0.068** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB12-20 | 4/3/13 | SES | F&BI | 20 | 20.00 | – | – | – | – | – | – | – | **18** | | **0.56** | | **1.6** | | 0.05 | U | 0.05 | U |
| | DB12-30 | 4/3/13 | SES | F&BI | 30 | 10.00 | – | – | – | – | – | – | – | **6.7** | | **0.032** | | **0.052** | | 0.05 | U | 0.05 | U |
| | DB12-40 | 4/3/13 | SES | F&BI | 40 | 0.00 | – | – | – | – | – | – | – | **11** | | **0.060** | | 0.05 | U | 0.05 | U | 0.05 | U |
| DB13 | DB13-10 | 4/3/13 | SES | F&BI | 10 | 30.00 | – | – | – | – | – | – | – | **0.12** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB13-20 | 4/3/13 | SES | F&BI | 20 | 20.00 | – | – | – | – | – | – | – | **0.78** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | DB13-35 | 4/3/13 | SES | F&BI | 35 | 5.00 | – | – | – | – | – | – | – | **2.7** | | **0.24** | | **0.063** | | 0.05 | U | 0.05 | U |
| | DB13-45 | 4/3/13 | SES | F&BI | 45 | -5.00 | – | – | – | – | – | – | – | **0.066** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| DB14 | DB14-10 | 4/4/13 | SES | F&BI | 10 | 31.50 | **260** | – | – | **0.059** | | **0.41** | | **1.2** | | **3.6** | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U |
| | DB14-20 | 4/4/13 | SES | F&BI | 20 | 21.50 | **73** | – | – | 0.02 | U | **0.078** | | **0.29** | | **1.0** | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U |
| | DB14-30 | 4/4/13 | SES | F&BI | 30 | 11.50 | – | – | – | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U |
| | DB14-40 | 4/4/13 | SES | F&BI | 40 | 1.50 | – | – | – | – | | – | | – | | – | | **0.050** | | 0.03 | U | **0.077** | | 0.05 | U | 0.05 | U |
| G-MW1 | MW 1-3-8 | 7/20/01 | GeoEng | NCA | 8 | 31.00 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U | 0.0540 | U | **19.9** | | 0.0230 | U | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| | MW 1-8-20 | 7/20/01 | GeoEng | NCA | 20 | 19.00 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U | 0.0540 | U | **237** | | **0.0622** | | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| | MW 1-11-27.5 | 7/20/01 | GeoEng | NCA | 27.5 | 11.50 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U | 0.0540 | U | **16.4** | | **0.0706** | **J** | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| | MW 1-13-32.5 | 7/20/01 | GeoEng | NCA | 32.5 | 6.50 | – | – | – | 0.0380 | U | 0.0360 | U | 0.0380 | U | 0.1080 | U | **33.1** | | **0.394** | | 0.0520 | U | 0.0260 | U | 0.0260 | U |
| | MW 1-15-37.5 | 7/20/01 | GeoEng | NCA | 37.5 | 1.50 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U | 0.0540 | U | **0.678** | | 0.0230 | U | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| G-MW3 (G-SB4 11) | SB4-4-10 | 7/20/01 | GeoEng | NCA | 10 | 29.60 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U | 0.0540 | U | **0.528** | | 0.0230 | U | 0.0260 | U | 0.0130 | U | 0.0130 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| G-MW3 (G-SB4 11) (continued) | SB4-7-17.5 | 7/20/01 | GeoEng | NCA | 17.5 | 22.10 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U 0.0540 | U **13.2** | | 0.0230 | U | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| | SB4-13-32.5 | 7/20/01 | GeoEng | NCA | 32.5 | 7.10 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U 0.0540 | U **5.70** | | **0.175** | | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| | SB4-15-37.5 | 7/20/01 | GeoEng | NCA | 37.5 | 2.10 | – | – | – | 0.0190 | U | 0.0180 | U | 0.0190 | U 0.0540 | U **0.581** | | 0.0230 | U | 0.0260 | U | 0.0130 | U | 0.0130 | U |
| IW06 | IW06-25 | 1/15/16 | SES | F&BI | 25 | 26.80 | – | – | – | – | | – | | – | – | **0.49** | **ve** | **0.010** | | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-30 | 1/15/16 | SES | F&BI | 30 | 21.80 | – | – | – | – | | – | | – | – | **0.19** | | **0.0080** | | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-40 | 1/15/16 | SES | F&BI | 40 | 11.80 | – | – | – | – | | – | | – | – | 0.005 | U | 0.003 | U | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-50 | 1/15/16 | SES | F&BI | 50 | 1.80 | – | – | – | – | | – | | – | – | **0.071** | | 0.003 | U | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-55 | 1/15/16 | SES | F&BI | 55 | -3.20 | – | – | – | – | | – | | – | – | **0.018** | | 0.003 | U | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-60 | 1/15/16 | SES | F&BI | 60 | -8.20 | – | – | – | – | | – | | – | – | 0.005 | U | 0.003 | U | **0.0061** | | 0.005 | U | 0.005 | U |
| | IW06-65 | 1/15/16 | SES | F&BI | 65 | -13.20 | – | – | – | – | | – | | – | – | **0.017** | | 0.003 | U | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-70 | 1/15/16 | SES | F&BI | 70 | -18.20 | – | – | – | – | | – | | – | – | 0.005 | UJ | 0.003 | U | 0.005 | U | 0.005 | U | 0.005 | U |
| | IW06-75 | 1/15/16 | SES | F&BI | 75 | -23.20 | – | – | – | – | | – | | – | – | **0.019** | **J** | 0.003 | UJ | 0.005 | UJ | 0.005 | UJ | 0.005 | UJ |
| IW-1C | IW-1C-5 | 3/7/18 | PES | ESC | 5 | 34.12 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U 0.000775 | U **0.0399** | | **0.00620** | | **0.00291** | | 0.000293 | U | 0.000323 | U |
| | IW-1C-15 | 3/7/18 | PES | ESC | 15 | 24.12 | – | – | – | 0.000317 | U | 0.000510 | U | 0.000349 | U 0.000820 | U **0.00145** | | **0.000516** | **J** | **0.00154** | | 0.000310 | U | **0.000790** | **J** |
| | IW-1C-25 | 3/7/18 | PES | ESC | 25 | 14.12 | – | – | – | 0.0641 | U | 0.103 | U | 0.0705 | U 0.166 | U **11.1** | | **0.845** | | **0.769** | | 0.0627 | U | 0.0691 | U |
| | IW-1C-35 | 3/7/18 | PES | ESC | 35 | 4.12 | – | – | – | 0.000290 | U | 0.000465 | U | 0.000319 | U 0.000749 | U **2.66** | | **0.286** | | **0.404** | | **0.00339** | | **0.0511** | |
| | IW-1C-45 | 3/7/18 | PES | ESC | 45 | -5.88 | – | – | – | 0.000302 | U | **0.000626** | **J** | 0.000332 | U 0.000781 | U **3.09** | | **0.0782** | | **0.153** | | **0.00107** | **J** | **0.0238** | |
| | IW-1C-55 | 3/7/18 | PES | ESC | 55 | -15.88 | – | – | – | 0.000302 | U | 0.000486 | U | 0.000333 | U 0.000782 | U **1.30** | | **0.00519** | | **0.324** | | **0.000342** | **J** | **0.176** | |
| | IW-1C-65 | 3/7/18 | PES | ESC | 65 | -25.88 | – | – | – | 0.000310 | U | 0.000499 | U | 0.000341 | U 0.000802 | U **0.00241** | | **0.00116** | | **0.000953** | **J** | 0.000303 | U | 0.000334 | U |
| | IW-1C-75 | 3/7/18 | PES | ESC | 75 | -35.88 | – | – | – | 0.000325 | U | **0.000696** | **J** | 0.000357 | U 0.000840 | U **0.00735** | | **0.00116** | **J** | **0.00329** | | 0.000318 | U | **0.00172** | |
| IW-2C | IW-2C-5 | 3/7/18 | PES | ESC | 5 | 31.24 | – | – | – | **0.000546** | **J** | 0.000536 | U | 0.000367 | U 0.000862 | U **0.000478** | **J** | **0.000790** | **J** | **0.00860** | | **0.000363** | **J** | **0.000593** | **J** |
| | IW-2C-15 | 3/7/18 | PES | ESC | 15 | 21.24 | – | – | – | 0.000323 | U | 0.000519 | U | 0.000355 | U 0.000834 | U 0.000330 | U | 0.000333 | U | **0.000795** | **J** | 0.000315 | U | **0.00186** | |
| | IW-2C-25 | 3/7/18 | PES | ESC | 25 | 11.24 | – | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U 0.000780 | U **6.20** | | **0.388** | | **0.304** | | **0.00130** | | **0.00850** | |
| | IW-2C-35 | 3/7/18 | PES | ESC | 35 | 1.24 | – | – | – | 0.000340 | U | 0.000547 | U | 0.000374 | U 0.000879 | U **0.947** | | **0.0403** | | **0.0708** | | **0.000522** | **J** | **0.00140** | |
| | IW-2C-45 | 3/7/18 | PES | ESC | 45 | -8.76 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U 0.000757 | U **8.84** | | **0.611** | | **1.02** | | **0.00232** | | **0.0551** | |
| | IW-2C-55 | 3/7/18 | PES | ESC | 55 | -18.76 | – | – | – | 0.000314 | U | 0.000506 | U | 0.000346 | U 0.000813 | U **0.0381** | | **0.00499** | | **0.0123** | | 0.000308 | U | **0.00598** | |
| | IW-2C-65 | 3/7/18 | PES | ESC | 65 | -28.76 | – | – | – | **0.000814** | **J** | **0.000725** | **J** | 0.000325 | U 0.000763 | U **0.00836** | | **0.000755** | **J** | **0.00376** | | 0.000289 | U | **0.00496** | |
| | IW-2C-75 | 3/7/18 | PES | ESC | 75 | -38.76 | – | – | – | 0.000324 | U | 0.000521 | U | 0.000357 | U 0.000838 | U 0.000331 | U | 0.000335 | U | 0.000282 | U | 0.000317 | U | 0.000350 | U |
| IW-3C | IW-3C-5 | 3/9/18 | PES | ESC | 5 | 34.09 | – | – | – | 0.000295 | U | 0.000475 | U | 0.000325 | U 0.000763 | U **0.0323** | | **0.00162** | | **0.000620** | **J** | 0.000289 | U | 0.000318 | U |
| | IW-3C-15 | 3/9/18 | PES | ESC | 15 | 24.09 | – | – | – | 0.00782 | U | 0.0125 | U | 0.00860 | U 0.0202 | U **1.36** | | **0.0812** | | **0.422** | | 0.00765 | U | **0.00964** | **J** |
| | IW-3C-25 | 3/9/18 | PES | ESC | 25 | 14.09 | – | – | – | 0.159 | U | 0.256 | U | 0.175 | U 0.412 | U **19.0** | | **0.774** | | **0.968** | | 0.156 | U | 0.172 | U |
| | IW-3C-35 | 3/9/18 | PES | ESC | 35 | 4.09 | – | – | – | 0.0600 | U | 0.0965 | U | 0.0660 | U 0.156 | U **9.68** | | **0.456** | | **0.918** | | 0.0587 | U | **0.0932** | **J** |
| | IW-3C-45 | 3/9/18 | PES | ESC | 45 | -5.91 | – | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U 0.000805 | U **1.85** | | **0.0926** | | **0.199** | | 0.00138 | U | **0.0251** | |
| | IW-3C-55 | 3/9/18 | PES | ESC | 55 | -15.91 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U 0.000792 | U **0.0387** | | **0.00215** | | **0.0107** | | 0.000300 | U | **0.00140** | |
| | IW-3C-65 | 3/9/18 | PES | ESC | 65 | -25.91 | – | – | – | 0.000308 | U | 0.000495 | U | 0.000339 | U 0.000796 | U **0.0830** | | **0.0128** | | **0.141** | | 0.000301 | U | **0.00726** | |
| | IW-3C-75 | 3/9/18 | PES | ESC | 75 | -35.91 | – | – | – | 0.000338 | U | 0.000543 | U | 0.000372 | U 0.000874 | U **0.0413** | | **0.00631** | | **0.131** | | 0.000331 | U | **0.00484** | |
| | IW-3C-79 | 3/9/18 | PES | ESC | 79 | -39.91 | – | – | – | 0.000314 | U | 0.000504 | U | 0.000345 | U 0.000811 | U **0.00138** | | 0.000324 | U | **0.00195** | | 0.000307 | U | 0.000338 | U |
| | IW-901-79 | 3/9/18 | PES | ESC | 79 (dup) | -39.91 | – | – | – | 0.000312 | U | 0.000502 | U | 0.000344 | U 0.000807 | U 0.000319 | U | 0.000323 | U | 0.000272 | U | 0.000305 | U | 0.000337 | U |
| IW-7A | IW-7A-5 | 3/16/18 | PES | ESC | 5 | 35.09 | **0.799** | – | – | **0.0122** | | **0.00706** | | **0.00221** | **0.00827** | **0.00171** | | **0.000944** | **J** | **0.00829** | | 0.000327 | U | **0.000638** | **J** |
| | IW-7A-10 | 3/16/18 | PES | ESC | 10 | 30.09 | **253** | – | – | **0.0433** | | **0.0179** | | **0.0304** | **0.0686** | 0.00163 | U | 0.00145 | U | **0.00509** | | 0.00246 | U | 0.00134 | U |
| | IW-7A-15 | 3/16/18 | PES | ESC | 15 | 25.09 | **108** | – | – | **0.279** | | **0.135** | **J** | **0.232** | **0.389** | **0.0250** | **J** | 0.0112 | U | **0.0163** | **J** | 0.0106 | U | 0.0117 | U |
| | IW-7A-20 | 3/16/18 | PES | ESC | 20 | 20.09 | **18.7** | – | – | **0.00723** | | **0.0250** | | **0.00585** | **0.0170** | 0.00167 | U | 0.00149 | U | **0.00155** | **J** | 0.00253 | U | 0.00137 | U |
| | IW-7A-25 | 3/16/18 | PES | ESC | 25 | 15.09 | **2.82** | – | – | **0.00189** | | 0.000526 | U | 0.000360 | U 0.000845 | U 0.000334 | U | 0.000338 | U | **0.000857** | **J** | 0.000320 | U | 0.000352 | U |
| | IW-7A-30 | 3/16/18 | PES | ESC | 30 | 10.09 | **0.287** | – | – | **0.00201** | | **0.000845** | **J** | **0.000369** | **J** 0.000810 | U **0.00109** | **J** | **0.000495** | **J** | **0.00175** | | 0.000306 | U | **0.000829** | **J** |
| | IW-7A-35 | 3/16/18 | PES | ESC | 35 | 5.09 | **6.38** | – | – | **0.00282** | **J** | **0.00752** | | **0.00222** | **J** 0.00575 | U **0.00201** | **J** | 0.00128 | U | **0.00193** | **J** | 0.00217 | U | 0.00118 | U |
| | IW-7A-40 | 3/16/18 | PES | ESC | 40 | 0.09 | **0.296** | – | – | 0.000318 | U | 0.000511 | U | 0.000350 | U 0.000822 | U **0.00118** | | **0.000393** | **J** | **0.000564** | **J** | 0.000311 | U | 0.000343 | U |
| | IW-7A-45 | 3/16/18 | PES | ESC | 45 | -4.91 | **0.282** | – | – | **0.000600** | **J** | 0.000507 | U | 0.000347 | U 0.000816 | U **0.000910** | **J** | 0.000326 | U | **0.000444** | **J** | 0.000309 | U | 0.000340 | U |
| | IW-7A-50 | 3/16/18 | PES | ESC | 50 | -9.91 | **0.483** | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U 0.000775 | U **0.0179** | | **0.00761** | | **0.117** | | **0.000372** | **J** | **0.00223** | |
| IW-8B | IW-8B-5 | 3/19/18 | PES | ESC | 5 | 34.19 | – | – | – | 0.000296 | U | 0.000475 | U | 0.000325 | U 0.000764 | U **0.0342** | | **0.00314** | | **0.00224** | | 0.000289 | U | 0.000319 | U |
| | IW-8B-10 | 3/19/18 | PES | ESC | 10 | 29.19 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U 0.000752 | U **0.0432** | | **0.00481** | | **0.00634** | | 0.000285 | U | 0.000314 | U |
| | IW-8B-15 | 3/19/18 | PES | ESC | 15 | 24.19 | – | – | – | 0.0777 | U | 0.124 | U | 0.0854 | U 0.200 | U **29.6** | | **0.243** | **J** | 0.198 | U | **0.0760** | | 0.0838 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| IW-8B (continued) | IW-8B-20 | 3/19/18 | PES | ESC | 20 | 19.19 | – | – | – | 0.000296 | U | 0.000790 | U | 0.000326 | U | 0.000766 | U | **23.9** | | **0.105** | | **0.117** | | **0.00141** | | **0.00354** | |
| | IW-8B-25 | 3/19/18 | PES | ESC | 25 | 14.19 | – | – | – | 0.000316 | U | 0.000508 | U | 0.000348 | U | 0.000817 | U | **4.80** | | **0.109** | | **0.319** | | **0.00107** | **J** | **0.0350** | |
| | IW-8B-30 | 3/19/18 | PES | ESC | 30 | 9.19 | – | – | – | 0.000303 | U | 0.000488 | U | 0.000334 | U | 0.000784 | U | **2.56** | | **0.0560** | | **0.107** | | **0.000461** | **J** | **0.0153** | |
| | IW-8B-40 | 3/19/18 | PES | ESC | 40 | -0.81 | – | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000779 | U | **0.0249** | | **0.00131** | | **0.00401** | | 0.000294 | U | **0.00106** | **J** |
| | IW-8B-45 | 3/20/18 | PES | ESC | 45 | -5.81 | – | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | **0.0424** | | **0.00265** | | **0.00866** | | 0.000294 | U | **0.00141** | |
| | IW-8B-50 | 3/20/18 | PES | ESC | 50 | -10.81 | – | – | – | 0.000309 | U | 0.000496 | U | 0.000340 | U | 0.000798 | U | **0.0164** | | **0.000972** | **J** | **0.00364** | | 0.000302 | U | **0.000608** | **J** |
| | IW-8B-55 | 3/20/18 | PES | ESC | 55 | -15.81 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000753 | U | **0.00501** | | **0.000352** | **J** | **0.00183** | | 0.000285 | U | **0.000393** | **J** |
| | IW-8B-60 | 3/20/18 | PES | ESC | 60 | -20.81 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | **0.00710** | | **0.000382** | **J** | **0.00148** | | 0.000302 | U | 0.000333 | U |
| | IW-8B-64 | 3/20/18 | PES | ESC | 64 | -24.81 | – | – | – | 0.000304 | U | 0.000489 | U | 0.000335 | U | 0.000787 | U | **0.00679** | | **0.000406** | **J** | 0.00102 | U | 0.000298 | U | 0.000328 | U |
| IW-8C | IW-8C-5 | 3/14/18 | PES | ESC | 5 | 32.46 | – | – | – | **0.00198** | **J+** | 0.000746 | U | 0.000510 | U | 0.00120 | U | **5.81** | | **0.129** | **J+** | **0.0338** | **J+** | **0.000693** | **J+** | **0.00182** | **J+** |
| | IW-8C-10 | 3/14/18 | PES | ESC | 10 | 27.46 | – | – | – | **0.00277** | | **0.00153** | **J** | 0.000514 | U | **0.00122** | **J** | **0.0394** | | **0.00705** | | **0.0112** | | **0.00192** | | **0.00710** | |
| | IW-8C-15 | 3/14/18 | PES | ESC | 15 | 22.46 | – | – | – | 0.000318 | U | 0.000511 | U | 0.000350 | U | 0.000823 | U | **0.000583** | **J** | 0.000329 | U | **0.000359** | **J** | 0.000311 | U | 0.000342 | U |
| | IW-8C-20 | 3/14/18 | PES | ESC | 20 | 17.46 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000753 | U | **0.00474** | | **0.000938** | **J** | **0.0108** | | 0.000285 | U | **0.00100** | **J** |
| | IW-8C-25 | 3/14/18 | PES | ESC | 25 | 12.46 | – | – | – | 0.000321 | U | 0.000517 | U | 0.000354 | U | 0.000831 | U | **5.39** | | **0.768** | | **0.946** | | **0.00231** | | **0.0426** | |
| | IW-8C-30 | 3/14/18 | PES | ESC | 30 | 7.46 | – | – | – | 0.000299 | U | 0.000480 | U | 0.000329 | U | 0.000772 | U | **0.798** | | **0.0947** | | **0.143** | | **0.00177** | | **0.0814** | |
| | IW-8C-35 | 3/14/18 | PES | ESC | 35 | 2.46 | – | – | – | 0.000312 | U | 0.000502 | U | 0.000344 | U | 0.000807 | U | **0.833** | | **0.0474** | | **0.162** | | **0.000842** | **J** | **0.0230** | |
| | IW-8C-40 | 3/14/18 | PES | ESC | 40 | -2.54 | – | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | **40.7** | | **3.56** | | **1.54** | | **0.00250** | | **0.0684** | |
| | IW-8C-45 | 3/14/18 | PES | ESC | 45 | -7.54 | – | – | – | **0.000346** | **J** | **0.000557** | **J** | 0.000335 | U | 0.000787 | U | **1.05** | | **0.327** | | **0.200** | | **0.00889** | | **0.164** | **J** |
| | IW-8C-50 | 3/14/18 | PES | ESC | 50 | -12.54 | – | – | – | 0.000317 | U | **0.0210** | **J+** | **0.00441** | **J+** | **0.0244** | | **105** | | **3.06** | | **3.68** | | **0.0135** | **J+** | **0.101** | **J+** |
| | IW-8C-55 | 3/14/18 | PES | ESC | 55 | -17.54 | – | – | – | 0.000312 | U | **0.00402** | **J+** | **0.000604** | **J+** | **0.00330** | **J+** | **11.9** | | **0.340** | **J** | **2.31** | | **0.00620** | **J+** | **0.0531** | **J+** |
| | IW-8C-60 | 3/14/18 | PES | ESC | 60 | -22.54 | – | – | – | 0.000309 | U | **0.000637** | **J** | 0.000339 | U | 0.000798 | U | **10.8** | | **0.275** | | **0.464** | | **0.00132** | | **0.0104** | |
| | IW-902-60 | 3/14/18 | PES | ESC | 60 (dup) | -22.54 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | **0.955** | | **0.0566** | | **0.108** | | **0.000329** | **J** | **0.00405** | |
| | IW-8C-65 | 3/14/18 | PES | ESC | 65 | -27.54 | – | – | – | 0.000324 | U | 0.000521 | U | 0.000356 | U | 0.000837 | U | **0.0191** | | **0.000468** | **J** | **0.00158** | | 0.000317 | U | **0.000360** | **J** |
| | IW-8C-70 | 3/14/18 | PES | ESC | 70 | -32.54 | – | – | – | 0.000320 | U | 0.000515 | U | 0.000353 | U | 0.000829 | U | **1.96** | | **0.0138** | | **0.0327** | | 0.000313 | U | **0.00139** | |
| | IW-8C-75 | 3/14/18 | PES | ESC | 75 | -37.54 | – | – | – | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | **0.0850** | | **0.00383** | | **0.00864** | | 0.000296 | U | **0.000586** | **J** |
| IW-11D | IW-11D-10 | 4/19/18 | PES | ESC | 10 | 28.18 | – | – | – | **0.00456** | | **0.00223** | **J** | **0.000463** | **J** | 0.000964 | U | **0.00183** | | 0.000385 | U | **0.000329** | **J** | 0.000364 | U | 0.000402 | U |
| | IW-11D-15 | 4/19/18 | PES | ESC | 15 | 23.18 | – | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | 0.000320 | U | 0.000323 | U | 0.000272 | U | 0.000306 | U | 0.000337 | U |
| | IW-11D-20 | 4/19/18 | PES | ESC | 20 | 18.18 | – | – | – | 0.000312 | U | 0.000502 | U | 0.000344 | U | 0.000807 | U | 0.000319 | U | 0.000323 | U | 0.000272 | U | 0.000305 | U | 0.000337 | U |
| | IW-11D-25 | 4/19/18 | PES | ESC | 25 | 13.18 | – | – | – | 0.000295 | U | 0.000474 | U | 0.000325 | U | 0.000763 | U | **0.00342** | | **0.00368** | | **0.0174** | | 0.000288 | U | **0.00161** | |
| | IW-11D-30 | 4/19/18 | PES | ESC | 30 | 8.18 | – | – | – | 0.000295 | U | 0.000475 | U | 0.000325 | U | 0.000763 | U | **0.0362** | | **0.00990** | | **0.00931** | | 0.000289 | U | **0.00215** | |
| | IW-11D-35 | 4/19/18 | PES | ESC | 35 | 3.18 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000800 | U | **0.0167** | | **0.0176** | | **0.101** | | **0.00208** | | **0.0389** | |
| | IW-11D-40 | 4/19/18 | PES | ESC | 40 | -1.82 | – | – | – | 0.000298 | U | 0.000480 | U | 0.000328 | U | 0.000771 | U | **0.00301** | | **0.00143** | | **1.25** | | **0.00785** | | **0.113** | |
| | IW-11D-45 | 4/19/18 | PES | ESC | 45 | -6.82 | – | – | – | 0.00760 | U | 0.0122 | U | 0.00835 | U | 0.0196 | U | **0.227** | | **0.144** | | **0.426** | | **0.0576** | | **0.506** | |
| | IW-11D-50 | 4/19/18 | PES | ESC | 50 | -11.82 | – | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000749 | U | **0.115** | | **0.387** | | **0.693** | | **0.00602** | | **0.0505** | |
| | IW-11D-55 | 4/19/18 | PES | ESC | 55 | -16.82 | – | – | – | 0.000320 | U | 0.000514 | U | 0.000352 | U | 0.000827 | U | **0.0281** | | **0.0427** | | **2.04** | | **0.00127** | | **0.0113** | |
| | IW-11D-60 | 4/19/18 | PES | ESC | 60 | -21.82 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.00270** | | **0.00337** | | **0.00916** | | 0.000290 | U | **0.000843** | **J** |
| | IW-11D-65 | 4/19/18 | PES | ESC | 65 | -26.82 | – | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | **0.000793** | **J** | **0.000816** | **J** | **0.00280** | | 0.000291 | U | 0.000321 | U |
| | IW-11D-70 | 4/19/18 | PES | ESC | 70 | -31.82 | – | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **2.23** | | **1.80** | | **2.07** | | **0.00132** | | **0.00344** | |
| | IW-11D-75 | 4/19/18 | PES | ESC | 75 | -36.82 | – | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | **0.0140** | | **0.0277** | | **0.106** | | **0.000725** | **J** | **0.00270** | |
| | IW-11D-80 | 4/19/18 | PES | ESC | 80 | -41.82 | – | – | – | 0.000303 | U | 0.000488 | U | 0.000334 | U | 0.000784 | U | **0.000610** | **J** | **0.00104** | **J** | **0.00473** | | 0.000297 | U | 0.000327 | U |
| | IW-11D-85 | 4/19/18 | PES | ESC | 85 | -46.82 | – | – | – | 0.000310 | U | 0.000499 | U | 0.000341 | U | 0.000802 | U | 0.000317 | U | **0.000401** | **J** | **0.000785** | **J** | 0.000303 | U | 0.000335 | U |
| | IW-11D-90 | 4/19/18 | PES | ESC | 90 | -51.82 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000336 | U | 0.000791 | U | **0.00552** | | **0.00374** | | **0.00227** | | 0.000299 | U | **0.00127** | |
| | IW-11D-95 | 4/19/18 | PES | ESC | 95 | -56.82 | – | – | – | 0.000316 | U | 0.000509 | U | 0.000348 | U | 0.000818 | U | 0.000323 | U | 0.000327 | U | 0.000275 | U | 0.000309 | U | 0.000341 | U |
| IW-19B | IW-19B-5 | 3/19/18 | PES | ESC | 5 | 32.36 | – | – | – | **0.000797** | **J** | 0.000491 | U | 0.000336 | U | 0.000789 | U | **0.00478** | | **0.000961** | **J** | 0.000961 | U | 0.000298 | U | 0.000328 | U |
| | IW-19B-10 | 3/19/18 | PES | ESC | 10 | 27.36 | – | – | – | **0.000465** | **J** | 0.000980 | U | 0.000365 | U | 0.000859 | U | 0.000340 | U | 0.000343 | U | 0.000718 | U | 0.000325 | U | 0.000358 | U |
| | IW-19B-15 | 3/19/18 | PES | ESC | 15 | 22.36 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000800 | U | **0.00104** | **J** | 0.000320 | U | 0.000383 | U | 0.000302 | U | 0.000333 | U |
| | IW-19B-20 | 3/19/18 | PES | ESC | 20 | 17.36 | – | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | **0.000942** | **J** | 0.000312 | U | 0.000349 | U | 0.000295 | U | 0.000325 | U |
| | IW-19B-25 | 3/19/18 | PES | ESC | 25 | 12.36 | – | – | – | 0.000317 | U | 0.000509 | U | 0.000349 | U | 0.000819 | U | **0.00166** | | **0.000434** | **J** | 0.000621 | U | 0.000310 | U | 0.000342 | U |
| | IW-19B-30 | 3/19/18 | PES | ESC | 30 | 7.36 | – | – | – | 0.000303 | U | 0.000487 | U | 0.000334 | U | 0.000784 | U | 0.000310 | U | 0.000313 | U | 0.000600 | U | 0.000297 | U | 0.000327 | U |
| | IW-19B-35 | 3/19/18 | PES | ESC | 35 | 2.36 | – | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | **0.00134** | | **0.000436** | **J** | 0.000786 | U | 0.000293 | U | 0.000323 | U |
| | IW-19B-40 | 3/19/18 | PES | ESC | 40 | -2.64 | – | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000806 | U | 0.000319 | U | 0.000322 | U | **0.0140** | | 0.000305 | U | **0.00417** | |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | | 30 | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| IW-19B (continued) | IW-19B-45 | 3/19/18 | PES | ESC | 45 | -7.64 | – | – | – | 0.000330 | U | 0.000530 | U | 0.000362 | U | 0.000852 | U | 0.000337 | U | **0.000472** | **J** | 0.00112 | U | 0.000322 | U | **0.000514** | **J** |
| | IW-19B-50 | 3/19/18 | PES | ESC | 50 | -12.64 | – | – | – | 0.000344 | U | 0.000646 | U | 0.000379 | U | 0.000891 | U | **0.00660** | | **0.0168** | | **0.0683** | | **0.00178** | | **0.0457** | |
| | IW-19B-55 | 3/19/18 | PES | ESC | 55 | -17.64 | – | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000768 | U | **10.3** | | **3.01** | | **1.93** | | **0.0123** | | **0.109** | |
| | IW-19B-60 | 3/19/18 | PES | ESC | 60 | -22.64 | – | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **14.5** | **J** | **3.70** | | **3.16** | | **0.0185** | | **0.268** | |
| | IW-903-60 | 3/19/18 | PES | ESC | 60 (dup) | -22.64 | – | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000784 | U | **20.3** | **J** | **4.58** | | **3.68** | | **0.0182** | | **0.280** | |
| | IW-19B-63 | 3/19/18 | PES | ESC | 63 | -25.64 | – | – | – | 0.000302 | U | 0.000486 | U | 0.000333 | U | 0.000781 | U | **0.0326** | | **0.0180** | | **0.0326** | | 0.000296 | | **0.0108** | |
| IW-21B | IW-21B-5 | 3/6/18 | PES | ESC | 5 | 36.88 | – | – | – | 0.000488 | U | 0.000784 | U | 0.000536 | U | 0.00126 | U | **0.0140** | | **0.00659** | | **0.00711** | | 0.000477 | U | 0.000526 | U |
| | IW-21B-10 | 3/6/18 | PES | ESC | 10 | 31.88 | – | – | – | 0.000329 | U | 0.000529 | U | 0.000362 | U | 0.000851 | U | **0.0130** | | **0.00524** | | **0.00482** | | 0.000322 | U | 0.000355 | U |
| | IW-21B-20 | 3/6/18 | PES | ESC | 20 | 21.88 | – | – | – | **0.000864** | **J** | **0.00128** | **J** | 0.000357 | U | 0.000839 | U | **0.000338** | **J** | 0.000335 | U | 0.000283 | U | 0.000317 | U | 0.000350 | U |
| | IW-21B-30 | 3/6/18 | PES | ESC | 30 | 11.88 | – | – | – | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | 0.000308 | U | 0.000312 | U | **0.000406** | **J** | 0.000295 | U | 0.000325 | U |
| | IW-21B-40 | 3/6/18 | PES | ESC | 40 | 1.88 | – | – | – | 0.000298 | U | 0.000480 | U | 0.000328 | U | 0.000772 | U | **0.00709** | | **0.00187** | | **0.0424** | | **0.00134** | | **0.0212** | |
| | IW-21B-50 | 3/6/18 | PES | ESC | 50 | -8.12 | – | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000755 | U | **0.00382** | | **0.00783** | | **0.0340** | | **0.000587** | **J** | **0.0338** | |
| | IW-21B-60 | 3/6/18 | PES | ESC | 60 | -18.12 | – | – | – | 0.00765 | U | 0.0122 | U | 0.00841 | U | 0.0197 | U | **10.5** | | **3.82** | | **3.82** | | **0.0341** | | **0.0525** | |
| | IW-21B-67 | 3/6/18 | PES | ESC | 67 | -25.12 | – | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | **0.00196** | | **0.00311** | | **0.0353** | **J** | **0.000295** | **J** | **0.00878** | |
| IW-27B | IW-27B-5 | 3/2/18 | PES | ESC | 5 | 36.89 | – | – | – | 0.000432 | U | 0.000695 | U | 0.000476 | U | 0.00112 | U | **0.0678** | | **0.0248** | | **0.0106** | | 0.000424 | U | 0.000467 | U |
| | IW-27B-15 | 3/2/18 | PES | ESC | 15 | 26.89 | – | – | – | **0.00393** | | **0.00124** | **J** | 0.000423 | U | 0.000994 | U | **0.0178** | | **0.00435** | | **0.00218** | | 0.000376 | U | **0.000493** | **J** |
| | IW-27B-25 | 3/2/18 | PES | ESC | 25 | 16.89 | – | – | – | 0.000314 | U | 0.000505 | U | 0.000345 | U | 0.000812 | U | 0.000321 | U | 0.000324 | U | 0.000273 | U | 0.000307 | U | 0.000338 | U |
| | IW-27B-35 | 3/2/18 | PES | ESC | 35 | 6.89 | – | – | – | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | **0.00114** | **J** | **0.000325** | **J** | **0.108** | | **0.120** | | **0.0195** | |
| IW-39B | IW-39B-5 | 3/12/18 | PES | ESC | 5 | 35.16 | – | – | – | 0.000343 | U | 0.000551 | U | 0.000377 | U | 0.000886 | U | **0.0961** | | **0.00856** | | **0.0227** | | **0.000423** | **J** | 0.000370 | U |
| | IW-39B-15 | 3/12/18 | PES | ESC | 15 | 25.16 | – | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | 0.000308 | U | 0.000311 | U | **0.00624** | | 0.000294 | U | 0.000324 | U |
| | IW-39B-25 | 3/12/18 | PES | ESC | 25 | 15.16 | – | – | – | 0.000321 | U | 0.000516 | U | 0.000353 | U | 0.000830 | U | **0.0371** | | **0.00557** | | **0.0239** | | **0.000814** | **J** | **0.000945** | **J** |
| | IW-39B-35 | 3/12/18 | PES | ESC | 35 | 5.16 | – | – | – | 0.000296 | U | 0.000477 | U | 0.000326 | U | 0.000766 | U | **0.00404** | | **0.00185** | | **0.0135** | | **0.000397** | **J** | **0.00311** | |
| | IW-39B-45 | 3/12/18 | PES | ESC | 45 | -4.84 | – | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.00336** | | **0.00126** | | **0.0185** | | 0.000296 | U | **0.00592** | |
| | IW-39B-55 | 3/12/18 | PES | ESC | 55 | -14.84 | – | – | – | 0.00709 | U | 0.0113 | U | 0.007790 | U | 0.0183 | U | **0.0868** | | **0.0219** | **J** | **1.57** | | **0.0809** | | **0.0245** | **J** |
| IW-46B | IW-46B-5 | 3/20/18 | PES | ESC | 5 | 46.82 | – | – | – | 0.000303 | UJ | 0.000488 | UJ | 0.000334 | UJ | 0.000785 | UJ | **0.00450** | **J** | 0.000314 | UJ | **0.000434** | **J** | 0.000297 | UJ | 0.000327 | UJ |
| | IW-46B-10 | 3/20/18 | PES | ESC | 10 | 41.82 | – | – | – | **0.000327** | **J** | 0.000477 | UJ | 0.000326 | UJ | 0.000767 | UJ | **0.0223** | **J** | 0.000307 | UJ | **0.000349** | **J** | 0.000290 | UJ | 0.000320 | UJ |
| | IW-46B-15 | 3/20/18 | PES | ESC | 15 | 36.82 | – | – | – | 0.00747 | UJ | 0.0119 | UJ | 0.00821 | UJ | 0.0192 | UJ | **0.386** | **J** | **0.0108** | **J** | 0.00650 | UJ | 0.00730 | UJ | 0.00805 | UJ |
| | IW-46B-20 | 3/20/18 | PES | ESC | 20 | 31.82 | – | – | – | 0.000302 | UJ | 0.000485 | UJ | 0.000332 | UJ | 0.000780 | UJ | **0.0626** | **J** | **0.00127** | **J** | **0.000960** | **J** | 0.000295 | UJ | 0.000325 | UJ |
| | IW-46B-25 | 3/20/18 | PES | ESC | 25 | 26.82 | – | – | – | 0.000298 | UJ | 0.000480 | UJ | 0.000328 | UJ | 0.000772 | UJ | **20.1** | **J** | **0.0476** | **J** | **0.00239** | **J** | 0.000292 | UJ | **0.000784** | **J** |
| | IW-46B-30 | 3/20/18 | PES | ESC | 30 | 21.82 | – | – | – | 0.000302 | UJ | 0.000485 | UJ | 0.000332 | UJ | 0.000781 | UJ | **5.63** | **J** | **0.0134** | **J** | **0.00513** | **J** | 0.000295 | UJ | 0.000325 | UJ |
| | IW-46B-35 | 3/20/18 | PES | ESC | 35 | 16.82 | – | – | – | 0.000327 | UJ | 0.000525 | UJ | 0.000359 | UJ | 0.000844 | UJ | **0.00462** | **J** | 0.000338 | UJ | **0.000737** | **J** | 0.000319 | UJ | **0.000712** | **J** |
| | IW-904-35 | 3/20/18 | PES | ESC | 35 (dup) | 16.82 | – | – | – | 0.000345 | UJ | 0.000555 | UJ | 0.000380 | UJ | 0.000893 | UJ | **0.0143** | **J** | **0.00219** | **J** | **0.00147** | **J** | 0.000338 | UJ | **0.000756** | **J** |
| | IW-46B-40 | 3/20/18 | PES | ESC | 40 | 11.82 | – | – | – | 0.000284 | UJ | 0.000456 | UJ | 0.000312 | UJ | 0.000734 | UJ | **2.36** | **J** | **0.0147** | **J** | **0.00149** | **J** | 0.000278 | UJ | 0.000306 | UJ |
| | IW-46B-42 | 3/20/18 | PES | ESC | 42 | 9.82 | – | – | – | **0.000384** | **J** | **0.00189** | **J** | 0.000357 | UJ | **0.00187** | **J** | **145** | **J** | **1.31** | **J** | **4.91** | **J** | **0.00269** | **J** | **0.356** | **J** |
| | IW-46B-45 | 3/20/18 | PES | ESC | 45 | 6.82 | – | – | – | 1.54 | UJ | 2.47 | UJ | 1.68 | UJ | 3.97 | UJ | **261** | **J** | **1.59** | **J** | **2.47** | **J** | 1.50 | UJ | 1.66 | UJ |
| | IW-46B-50 | 3/20/18 | PES | ESC | 50 | 1.82 | – | – | – | **0.000504** | **J** | **0.000577** | **J** | 0.000297 | UJ | 0.000698 | UJ | **2.31** | **J** | **0.0168** | **J** | **2.05** | **J** | **0.00309** | **J** | **1.65** | **J** |
| | IW-46B-55 | 3/20/18 | PES | ESC | 55 | -3.18 | – | – | – | **0.000305** | **J** | 0.000484 | UJ | 0.000331 | UJ | 0.000778 | UJ | **14.3** | **J** | **0.0266** | **J** | **1.06** | **J** | **0.000783** | **J** | **0.0923** | **J** |
| | IW-46B-60 | 3/20/18 | PES | ESC | 60 | -8.18 | – | – | – | 0.000305 | UJ | 0.000490 | UJ | 0.000335 | UJ | 0.000788 | UJ | **8.71** | **J** | **0.0393** | **J** | **4.95** | **J** | **0.00223** | **J** | **0.908** | **J** |
| | IW-46B-65 | 3/20/18 | PES | ESC | 65 | -13.18 | – | – | – | 0.000300 | UJ | 0.000483 | UJ | 0.000330 | UJ | 0.000776 | UJ | **1.78** | **J** | **0.00183** | **J** | **4.82** | **J** | **0.000435** | **J** | **0.0639** | **J** |
| | IW-46B-70 | 3/20/18 | PES | ESC | 70 | -18.18 | – | – | – | 0.000344 | UJ | 0.000554 | UJ | 0.000379 | UJ | 0.000890 | UJ | **2.79** | **J** | **0.0366** | **J** | **4.07** | **J** | **0.00185** | **J** | **0.0252** | **J** |
| IW-47B | IW-47B-5 | 3/22/18 | PES | ESC | 5 | 46.76 | – | – | – | **0.000323** | **J** | 0.000512 | UJ | 0.000350 | UJ | 0.000823 | UJ | **0.0518** | | **0.00121** | **J** | **0.000394** | **J** | 0.000311 | UJ | 0.000343 | UJ |
| | IW-47B-10 | 3/22/18 | PES | ESC | 10 | 41.76 | – | – | – | 0.000318 | UJ | 0.000511 | UJ | 0.000349 | UJ | 0.000821 | UJ | **0.0214** | **J** | **0.000935** | **J** | **0.000623** | **J** | 0.000311 | UJ | 0.000342 | UJ |
| | IW-47B-15 | 3/22/18 | PES | ESC | 15 | 36.76 | – | – | – | 0.000301 | UJ | 0.000485 | UJ | 0.000332 | UJ | 0.000779 | UJ | **0.00348** | **J** | 0.000312 | UJ | **0.0413** | **J** | 0.000295 | UJ | 0.000325 | UJ |
| | IW-47B-20 | 3/22/18 | PES | ESC | 20 | 31.76 | – | – | – | 0.000300 | UJ | 0.000482 | UJ | 0.000330 | UJ | 0.000775 | UJ | **0.0344** | **J** | **0.00453** | **J** | **0.00146** | **J** | 0.000293 | UJ | 0.000323 | UJ |
| | IW-47B-25 | 3/22/18 | PES | ESC | 25 | 26.76 | – | – | – | 0.000305 | UJ | 0.000491 | UJ | 0.000336 | UJ | 0.000790 | UJ | **0.0435** | **J** | **0.00663** | **J** | **0.00859** | **J** | 0.000299 | UJ | 0.000329 | UJ |
| | IW-47B-30 | 3/22/18 | PES | ESC | 30 | 21.76 | – | – | – | 0.000303 | UJ | 0.000487 | UJ | 0.000333 | UJ | 0.000783 | UJ | **0.00334** | **J** | **0.00136** | **J** | **0.146** | **J** | **0.000962** | **J** | 0.000326 | UJ |
| | IW-47B-35 | 3/22/18 | PES | ESC | 35 | 16.76 | – | – | – | 0.000297 | UJ | 0.000477 | UJ | 0.000327 | UJ | 0.000768 | UJ | **0.00552** | **J** | **0.00173** | **J** | **0.00566** | **J** | 0.000290 | UJ | 0.000320 | UJ |
| | IW-47B-40 | 3/22/18 | PES | ESC | 40 | 11.76 | – | – | – | 0.000306 | UJ | 0.000493 | UJ | 0.000337 | UJ | 0.000792 | UJ | **0.0155** | **J** | **0.00284** | **J** | **0.0378** | **J** | 0.000300 | UJ | **0.00246** | **J** |
| | IW-47B-42 | 3/22/18 | PES | ESC | 42 | 9.76 | – | – | – | 0.000354 | UJ | **0.000822** | **J** | 0.000390 | UJ | 0.000916 | UJ | **0.196** | **J** | **0.0157** | **J** | **0.0477** | **J** | 0.000346 | UJ | **0.00137** | **J** |
| | IW-47B-45 | 3/22/18 | PES | ESC | 45 | 6.76 | – | – | – | 0.000305 | UJ | 0.000491 | UJ | 0.000336 | UJ | 0.000789 | UJ | **0.0192** | **J** | **0.00253** | **J** | **1.42** | **J** | **0.000473** | **J** | **0.00224** | **J** |
| | IW-47B-50 | 3/22/18 | PES | ESC | 50 | 1.76 | – | – | – | 0.000317 | UJ | 0.000510 | UJ | 0.000349 | UJ | 0.000820 | UJ | **0.0102** | **J** | **0.00206** | **J** | **0.0368** | **J** | **0.00397** | **J** | **0.00131** | **J** |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Screening Levels | GRO 30 | DRO 2,000 | ORO 2,000 | Benzene 0.030 | | Toluene 0.273 | | Ethylbenzene 0.343 | | Total Xylenes 0.831 | | PCE 0.025 | | TCE 0.030 | | cDCE 0.050 | | tDCE 0.050 | | VC 0.050 | |
| IW-47B (continued) | IW-47B-55 | 3/22/18 | PES | ESC | 55 | -3.24 | – | – | – | 0.000292 | UJ | 0.000469 | UJ | 0.000321 | UJ | 0.000754 | UJ | **0.0158** | **J** | **0.00209** | **J** | **3.47** | **J** | **0.00213** | **J** | **0.105** | **J** |
| | IW-47B-60 | 3/22/18 | PES | ESC | 60 | -8.24 | – | – | – | 0.000309 | UJ | 0.000496 | UJ | 0.000340 | UJ | 0.000798 | UJ | **0.0204** | **J** | **0.00194** | **J** | **0.348** | **J** | **0.000867** | **J** | **0.0200** | **J** |
| | IW-47B-65 | 3/22/18 | PES | ESC | 65 | -13.24 | – | – | – | 0.000305 | UJ | 0.000490 | UJ | 0.000335 | UJ | 0.000788 | UJ | **0.0244** | **J** | **0.00115** | **J** | **0.119** | **J** | **0.000369** | **J** | **0.00491** | **J** |
| | IW-47B-70 | 3/22/18 | PES | ESC | 70 | -18.24 | – | – | – | 0.000301 | UJ | 0.000485 | UJ | 0.000332 | UJ | 0.000779 | UJ | **0.0312** | **J** | **0.00264** | **J** | **2.21** | **J** | **0.00244** | **J** | **0.0168** | **J** |
| | IW-47B-75 | 3/22/18 | PES | ESC | 75 | -23.24 | – | – | – | 0.000300 | UJ | 0.000483 | UJ | 0.000331 | UJ | 0.000777 | UJ | **0.000331** | **J** | 0.000310 | UJ | **0.00197** | **J** | 0.000294 | UJ | 0.000324 | UJ |
| IW-48B | IW-48B-5 | 3/23/18 | PES | ESC | 5 | 46.60 | – | – | – | 0.000312 | U | 0.000502 | U | 0.000343 | U | 0.000807 | U | **0.0108** | | 0.000322 | U | 0.000272 | U | 0.000305 | U | 0.000336 | U |
| | IW-48B-10 | 3/23/18 | PES | ESC | 10 | 41.60 | – | – | – | 0.000306 | U | 0.000491 | U | 0.000336 | U | 0.000790 | U | **0.00589** | | 0.000316 | U | **0.00100** | **J** | 0.000299 | U | 0.000329 | U |
| | IW-48B-15 | 3/23/18 | PES | ESC | 15 | 36.60 | – | – | – | **0.00101** | **J** | 0.000507 | U | 0.000347 | U | 0.000815 | U | **0.0117** | | 0.000326 | U | **0.000585** | **J** | 0.000308 | U | 0.000340 | U |
| | IW-48B-20 | 3/23/18 | PES | ESC | 20 | 31.60 | – | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000768 | U | **0.0775** | | **0.00543** | | **0.00149** | | 0.000290 | U | 0.000320 | U |
| | IW-48B-25 | 3/23/18 | PES | ESC | 25 | 26.60 | – | – | – | 0.000304 | U | 0.000489 | U | 0.000334 | U | 0.000786 | U | **0.924** | | **0.0104** | | **0.00777** | | 0.000297 | U | 0.000328 | U |
| | IW-48B-30 | 3/23/18 | PES | ESC | 30 | 21.60 | – | – | – | 0.000298 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | 0.127 | UJ | **0.00751** | | **0.00569** | | 0.000291 | U | 0.000321 | U |
| | IW-48B-35 | 3/23/18 | PES | ESC | 35 | 16.60 | – | – | – | 0.000311 | U | 0.000499 | U | 0.000342 | U | 0.000803 | U | 0.00825 | UJ | **0.00215** | | **0.0901** | | **0.000991** | **J** | 0.000335 | U |
| | IW-48B-40 | 3/23/18 | PES | ESC | 40 | 11.60 | – | – | – | 0.000295 | U | 0.000474 | U | 0.000324 | U | 0.000762 | U | **0.0129** | **J** | **0.00267** | | **0.000350** | **J** | **0.00178** | | 0.000318 | U |
| | IW-48B-42 | 3/23/18 | PES | ESC | 42 | 9.60 | – | – | – | 0.000298 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | 0.00329 | UJ | **0.00150** | | **0.0110** | | 0.000291 | U | 0.000321 | U |
| | IW-905-42 | 3/23/18 | PES | ESC | 42 (dup) | 9.60 | – | – | – | 0.000295 | U | 0.000474 | U | 0.000324 | U | 0.000763 | U | **0.00302** | | **0.00122** | | **0.00820** | | 0.000288 | U | 0.000318 | U |
| | IW-48B-45 | 3/23/18 | PES | ESC | 45 | 6.60 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.000668** | **J** | 0.000303 | U | **0.00156** | | 0.000286 | U | 0.000316 | U |
| | IW-48B-50 | 3/23/18 | PES | ESC | 50 | 1.60 | – | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.00167** | **J** | **0.00101** | **J** | **0.00420** | | **0.00118** | | 0.000321 | U |
| | IW-48B-55 | 3/23/18 | PES | ESC | 55 | -3.40 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.0683** | **J** | **0.0476** | | **0.148** | | **0.0204** | | **0.000480** | **J** |
| | IW-48B-60 | 3/23/18 | PES | ESC | 60 | -8.40 | – | – | – | 0.000299 | U | 0.000480 | U | 0.000329 | U | 0.000772 | U | **8.37** | | **0.191** | **J** | **3.47** | | **0.0176** | **J** | **0.00534** | |
| | IW-48B-65 | 3/23/18 | PES | ESC | 65 | -13.40 | – | – | – | 0.000319 | U | 0.000513 | U | 0.000351 | U | 0.000825 | U | **0.154** | | **0.00448** | | **0.121** | | **0.00172** | | **0.00410** | |
| | IW-48B-70 | 3/23/18 | PES | ESC | 70 | -18.40 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.0158** | | **0.000853** | **J** | **0.00825** | | 0.000290 | U | **0.00248** | |
| | IW-48B-75 | 3/23/18 | PES | ESC | 75 | -23.40 | – | – | – | 0.000304 | U | 0.000488 | U | 0.000334 | U | 0.000785 | U | **24.4** | | **0.932** | | **0.0303** | | **0.000968** | **J** | **0.00760** | |
| IW-50A | IW-50A-5 | 3/27/18 | PES | ESC | 5 | 46.81 | – | – | – | **0.000343** | **J** | 0.000495 | U | 0.000339 | U | 0.000797 | U | **0.0105** | | 0.000318 | U | 0.000268 | U | 0.000301 | U | 0.000332 | U |
| | IW-50A-10 | 3/27/18 | PES | ESC | 10 | 41.81 | – | – | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | **0.00526** | | **0.00365** | | **0.00210** | | 0.000294 | U | 0.000324 | U |
| | IW-50A-15 | 3/27/18 | PES | ESC | 15 | 36.81 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.00323** | | **0.00225** | | **0.00185** | | 0.000290 | U | 0.000320 | U |
| | IW-50A-20 | 3/27/18 | PES | ESC | 20 | 31.81 | – | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000776 | U | **0.00173** | | 0.000310 | U | **0.0300** | | 0.000293 | U | 0.000323 | U |
| | IW-50A-25 | 3/27/18 | PES | ESC | 25 | 26.81 | – | – | – | 0.000292 | U | 0.000470 | U | 0.000321 | U | 0.000755 | U | **0.0149** | | **0.00376** | | **0.0836** | | **0.000640** | **J** | 0.000315 | U |
| | IW-50A-30 | 3/27/18 | PES | ESC | 30 | 21.81 | – | – | – | 0.000293 | U | 0.000471 | U | 0.000323 | U | 0.000758 | U | **0.00643** | | **0.00146** | | **0.0103** | | 0.000287 | U | 0.000316 | U |
| | IW-50A-35 | 3/27/18 | PES | ESC | 35 | 16.81 | – | – | – | 0.000294 | U | 0.000473 | U | 0.000323 | U | 0.000760 | U | **0.00599** | | **0.00158** | | **0.0158** | | 0.000287 | U | 0.000317 | U |
| | IW-50A-40 | 3/27/18 | PES | ESC | 40 | 11.81 | – | – | – | 0.000298 | U | 0.000480 | U | 0.000328 | U | 0.000771 | U | **0.00647** | | **0.00188** | | **0.0273** | | 0.000292 | U | 0.000322 | U |
| | IW-50A-42 | 3/27/18 | PES | ESC | 42 | 9.81 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000326 | U | 0.000767 | U | **0.0263** | | **0.00273** | | **0.0970** | | 0.000290 | U | **0.00893** | |
| | IW-50A-45 | 3/27/18 | PES | ESC | 45 | 6.81 | – | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | **2.10** | | **0.0367** | | **0.350** | | 0.000292 | U | **0.00501** | |
| | IW-50A-50 | 3/27/18 | PES | ESC | 50 | 1.81 | – | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **2.67** | **J** | **0.0210** | **J** | **0.621** | **J** | 0.000296 | U | **0.0112** | |
| | IW-906-50 | 3/27/18 | PES | ESC | 50 (dup) | 1.81 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000788 | U | **0.0849** | **J** | **0.00989** | **J** | **0.121** | **J** | 0.000298 | U | **0.0119** | |
| | IW-50A-55 | 3/27/18 | PES | ESC | 55 | -3.19 | – | – | – | 0.000304 | U | 0.000488 | U | 0.000334 | U | 0.000786 | U | **0.0127** | | **0.00151** | | **0.0706** | | 0.000297 | U | **0.00993** | |
| | IW-50A-60 | 3/27/18 | PES | ESC | 60 | -8.19 | – | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000788 | U | **0.00210** | | 0.000315 | U | **0.00646** | | 0.000298 | U | **0.00363** | |
| IW-51A | IW-51A-5 | 3/26/18 | PES | ESC | 5 | 46.89 | – | – | – | 0.000297 | U | 0.000477 | U | 0.000327 | U | 0.000768 | U | **0.00410** | | 0.000307 | U | **0.000359** | **J** | 0.000290 | U | 0.000320 | U |
| | IW-51A-10 | 3/26/18 | PES | ESC | 10 | 41.89 | – | – | – | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000761 | U | **0.00112** | | 0.000304 | U | 0.000256 | U | 0.000288 | U | 0.000317 | U |
| | IW-51A-15 | 3/26/18 | PES | ESC | 15 | 36.89 | – | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | **0.00450** | | 0.000316 | U | **0.000778** | **J** | 0.000299 | U | 0.000330 | U |
| | IW-51A-20 | 3/26/18 | PES | ESC | 20 | 31.89 | – | – | – | 0.000293 | U | 0.000470 | U | 0.000322 | U | 0.000756 | U | **0.00211** | | 0.000302 | U | **0.000759** | **J** | 0.000286 | U | 0.000315 | U |
| | IW-51A-25 | 3/26/18 | PES | ESC | 25 | 26.89 | – | – | – | 0.000373 | U | 0.000599 | U | 0.000410 | U | 0.000963 | U | **5.20** | | **0.0410** | | **0.0670** | | **0.000506** | **J** | 0.000401 | U |
| | IW-51A-30 | 3/26/18 | PES | ESC | 30 | 21.89 | – | – | – | 0.000291 | U | 0.000468 | U | 0.000320 | U | 0.000752 | U | **3.14** | | **0.0147** | | **0.00590** | | 0.000284 | U | 0.000314 | U |
| | IW-51A-35 | 3/26/18 | PES | ESC | 35 | 16.89 | – | – | – | 0.000294 | U | 0.000473 | U | 0.000323 | U | 0.000760 | U | **0.00981** | | 0.000304 | U | **0.00305** | | 0.000287 | U | **0.000805** | **J** |
| | IW-51A-40 | 3/26/18 | PES | ESC | 40 | 11.89 | – | – | – | 0.000295 | U | 0.000474 | U | 0.000324 | U | 0.000763 | U | **0.101** | | **0.00781** | | **2.17** | | **0.000872** | **J** | **0.0155** | |
| | IW-51A-42 | 3/26/18 | PES | ESC | 42 | 9.89 | – | – | – | 0.000301 | U | 0.000483 | U | 0.000331 | U | 0.000777 | U | **2.97** | | **0.0397** | | **2.37** | | **0.00244** | | **0.0869** | **J** |
| | IW-51A-45 | 3/26/18 | PES | ESC | 45 | 6.89 | – | – | – | 0.000301 | U | 0.000483 | U | 0.000331 | U | 0.000777 | U | **0.125** | | 0.000311 | U | **0.0456** | | 0.000294 | U | **0.0448** | |
| | IW-51A-50 | 3/26/18 | PES | ESC | 50 | 1.89 | – | – | – | **0.000378** | **J** | 0.000497 | U | 0.000340 | U | 0.000800 | U | **1.36** | | **0.0165** | | **2.06** | | **0.000572** | **J** | **0.00557** | |
| | IW-51A-55 | 3/26/18 | PES | ESC | 55 | -3.11 | – | – | – | 0.000310 | U | 0.000498 | U | 0.000340 | U | 0.000800 | U | **0.103** | | **0.00933** | | **0.729** | | 0.000303 | U | **0.00612** | |
| | IW-51A-60 | 3/26/18 | PES | ESC | 60 | -8.11 | – | – | – | 0.000290 | U | 0.000467 | U | 0.000319 | U | 0.000751 | U | **0.000796** | **J** | 0.000300 | U | **0.00129** | | 0.000284 | U | **0.000706** | **J** |
| | IW-51A-62 | 3/26/18 | PES | ESC | 62 | -10.11 | – | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000759 | U | **0.000824** | **J** | 0.000303 | U | **0.00180** | | 0.000287 | U | **0.00354** | |
| MW101 (B101) | B101-30 | 7/10/12 | SES | F&BI | 30 | 10.00 | – | – | – | – | | – | | – | | – | | **24** | | **0.12** | | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | 0.030 | 0.273 | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW101 (B101) (continued) | B101-34 | 7/10/12 | SES | F&BI | 34 | 6.00 | – | | – | | – | – | – | – | – | **8.4** | | **0.033** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-40 | 7/10/12 | SES | F&BI | 40 | 0.00 | – | | – | | – | – | – | – | – | **20** | | **0.28** | | **0.064** | | 0.05 | U | 0.05 | U |
| | B101-47 | 7/10/12 | SES | F&BI | 47 | -7.00 | – | | – | | – | – | – | – | – | **7.2** | | **0.20** | | **0.12** | | 0.05 | U | 0.05 | U |
| | B101-48 | 7/10/12 | SES | F&BI | 48 | -8.00 | – | | – | | – | – | – | – | – | – | | – | | – | | – | | – | |
| | B101-55 | 7/10/12 | SES | F&BI | 55 | -15.00 | – | | – | | – | – | – | – | – | **4.2** | | **0.084** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-65 | 7/10/12 | SES | F&BI | 65 | -25.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-75 | 7/11/12 | SES | F&BI | 75 | -35.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-81 | 7/11/12 | SES | F&BI | 81 | -41.00 | – | | – | | – | – | – | – | – | **0.31** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-92 | 7/12/12 | SES | F&BI | 92 | -52.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-97 | 7/12/12 | SES | F&BI | 97 | -57.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-104 | 7/12/12 | SES | F&BI | 104 | -64.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-114.5 | 7/12/12 | SES | F&BI | 114.5 | -74.50 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-120 | 7/12/12 | SES | F&BI | 120 | -80.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-131 | 7/12/12 | SES | F&BI | 131 | -91.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-140 | 7/12/12 | SES | F&BI | 140 | -100.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW130 (B130) | B130-10 | 3/1/16 | SES | F&BI | 10 | 30.00 | – | | – | | – | – | – | – | – | **0.17** | | **0.040** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-20 | 3/1/16 | SES | F&BI | 20 | 20.00 | – | | – | | – | – | – | – | – | **0.82** | | **0.054** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-30 | 3/1/16 | SES | F&BI | 30 | 10.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-40 | 3/1/16 | SES | F&BI | 40 | 0.00 | – | | – | | – | – | – | – | – | **0.032** | | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-45 | 3/2/16 | SES | F&BI | 45 | -5.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-50 | 3/2/16 | SES | F&BI | 50 | -10.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-55 | 3/2/16 | SES | F&BI | 55 | -15.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-60 | 3/2/16 | SES | F&BI | 60 | -20.00 | – | | – | | – | – | – | – | – | **0.086** | | 0.02 | U | **1.20** | | 0.05 | U | 0.05 | U |
| | B130-65 | 3/2/16 | SES | F&BI | 65 | -25.00 | – | | – | | – | – | – | – | – | **1.9** | | **0.079** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-70 | 3/2/16 | SES | F&BI | 70 | -30.00 | – | | – | | – | – | – | – | – | **37** | **ve** | **0.44** | | **0.073** | | 0.05 | U | 0.05 | U |
| | B130-75 | 3/2/16 | SES | F&BI | 75 | -35.00 | – | | – | | – | – | – | – | – | **2.9** | | **0.058** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B130-80 | 3/2/16 | SES | F&BI | 80 | -40.00 | – | | – | | – | – | – | – | – | **0.59** | | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW131 (B131) | B131-10 | 3/1/16 | SES | F&BI | 10 | 30.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B131-20 | 3/1/16 | SES | F&BI | 20 | 20.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B131-30 | 3/1/16 | SES | F&BI | 30 | 10.00 | – | | – | | – | – | – | – | – | **0.097** | | **2.4** | | **3.2** | | **0.064** | | 0.05 | U |
| | B131-40 | 3/1/16 | SES | F&BI | 40 | 0.00 | – | | – | | – | – | – | – | – | 0.025 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B131-45 | 3/2/16 | SES | F&BI | 45 | -5.00 | – | | – | | – | – | – | – | – | **0.21** | | **0.036** | | **0.069** | | 0.05 | U | 0.05 | U |
| | B131-55 | 3/2/16 | SES | F&BI | 55 | -15.00 | – | | – | | – | – | – | – | – | **0.44** | | **0.60** | | **0.55** | | 0.05 | U | 0.05 | U |
| MW-132 | MW-132-20 | 8/22/17 | PES | ESC | 20 | 20.14 | 0.0378 | U | – | | – | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | **0.000312** | **J** | **0.000380** | **J** | **0.0108** | | **0.000443** | **J** | **0.00217** | |
| | MW-132-35 | 8/22/17 | PES | ESC | 35 | 5.14 | 0.0379 | U | – | | – | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | **0.00166** | | 0.000312 | U | **0.00506** | | 0.000295 | U | 0.00377 | UJ |
| | MW-132-50 | 8/22/17 | PES | ESC | 50 | -9.86 | **1.97** | | – | | – | 0.000292 | U | 0.000470 | U | 0.000321 | U | 0.000755 | U | **0.109** | | **0.153** | | **4.62** | | **0.0405** | | **0.00219** | |
| | MW-132-55 | 8/23/17 | PES | ESC | 55 | -14.86 | **126** | **z** | – | | – | 0.0310 | U | 0.0499 | U | 0.0342 | U | 0.0803 | U | **385** | | **9.63** | | **2.22** | | **0.0725** | **J** | 0.0335 | U |
| | MW-132-60 | 8/23/17 | PES | ESC | 60 | -19.86 | **0.276** | | – | | – | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000752 | U | **3.92** | | **4.60** | | **0.0871** | | **0.000785** | **J** | **0.000808** | **J** |
| | MW-132-70 | 8/23/17 | PES | ESC | 70 | -29.86 | 1.03 | U | – | | – | 0.000329 | U | 0.000529 | U | 0.000362 | U | 0.000851 | U | **0.00905** | **J** | 0.00851 | U | **0.000586** | **J** | 0.000322 | U | 0.000355 | U |
| | MW-132-83 | 8/23/17 | PES | ESC | 83 | -42.86 | 0.925 | U | – | | – | **0.000302** | **J** | 0.000473 | U | 0.000324 | U | 0.000761 | U | 0.00753 | U | 0.000304 | U | **0.000283** | **J** | 0.000288 | U | 0.000317 | U |
| MW-133 | MW-133-20 | 8/15/17 | PES | ESC | 20 | 19.98 | **0.183** | | – | | – | **0.000422** | **J** | 0.000511 | U | 0.000350 | U | 0.000823 | U | **3.62** | | **0.0688** | | **0.159** | | **0.000591** | **J** | **0.000389** | **J** |
| | MW-133-35 | 8/15/17 | PES | ESC | 35 | 4.98 | 0.0443 | U | – | | – | 0.000353 | U | 0.000567 | U | 0.000388 | U | 0.000911 | U | 0.00901 | U | **0.000594** | **J** | **0.000361** | **J** | 0.000345 | U | 0.000380 | U |
| | MW-133-45 | 8/15/17 | PES | ESC | 45 | -5.02 | **3.59** | **J** | – | | – | 0.000293 | U | 0.000472 | U | 0.000323 | U | 0.000759 | U | **5.17** | | **0.0309** | | **13.0** | | **0.00508** | | **0.323** | |
| | MW-133-55 | 8/15/17 | PES | ESC | 55 | -15.02 | **38.9** | **Jz** | – | | – | 0.0661 | U | 0.106 | U | 0.0727 | U | 0.171 | U | **114** | | **0.988** | | **4.09** | | 0.0646 | U | 0.0712 | U |
| | MW-133-58 | 8/15/17 | PES | ESC | 58 | -18.02 | **387** | **Jz** | – | | – | 1.60 | U | 2.57 | U | 1.75 | U | 4.13 | U | **691** | | 1.66 | U | 1.40 | U | 1.56 | U | 1.73 | U |
| | MW-133-65 | 8/15/17 | PES | ESC | 65 | -25.02 | **7.21** | **Jz** | – | | – | 0.000313 | U | 0.000502 | U | 0.000344 | U | 0.000808 | U | **36.0** | | **2.96** | | **1.41** | | **0.00123** | | **0.00631** | |
| | MW-133-75 | 8/15/17 | PES | ESC | 75 | -35.02 | 0.0394 | U | – | | – | 0.000314 | U | 0.000505 | U | 0.000346 | U | 0.000812 | U | **0.0468** | **J** | **0.000647** | **J** | **0.00191** | | 0.000307 | U | 0.000339 | U |
| | MW-133-85 | 8/15/17 | PES | ESC | 85 | -45.02 | **1.28** | **J** | – | | – | 0.00791 | U | **0.580** | | 0.00870 | U | 0.0204 | U | **2.28** | | **0.146** | | **0.0717** | | 0.00774 | U | 0.00853 | U |
| | MW-133-95 | 8/16/17 | PES | ESC | 95 | -55.02 | **0.0572** | **U** | – | | – | 0.000315 | U | 0.000506 | U | 0.000346 | U | 0.000813 | U | **0.00127** | | 0.000325 | U | 0.000274 | U | 0.000308 | U | 0.000339 | U |
| | MW-133-105 | 8/16/17 | PES | ESC | 105 | -65.02 | **0.0849** | **U** | – | | – | 0.000325 | U | 0.000523 | U | 0.000358 | U | 0.000840 | U | **0.000345** | **J** | 0.000336 | U | 0.000283 | U | 0.000318 | U | 0.000350 | U |
| | MW-133-120 | 8/16/17 | PES | ESC | 120 | -80.02 | **0.0964** | **U** | – | | – | 0.00734 | U | 0.0117 | U | 0.00806 | U | 0.0189 | U | 0.00750 | U | 0.00759 | U | 0.00639 | U | 0.00717 | U | 0.00791 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW-133 | MW-133-130 | 8/16/17 | PES | ESC | 130 | -90.02 | **0.109** | **U** | – | – | 0.000322 | U | 0.000517 | U | 0.000354 | U | 0.000832 | U | **0.0119** | | **0.00354** | | **0.000888** | **J** | 0.000314 | U | 0.000347 | U |
| (continued) | MW-133-135 | 8/16/17 | PES | ESC | 135 | -95.02 | **15.3** | **Jw** | – | – | **0.00369** | | **0.0119** | | **0.00179** | | **0.00392** | | **0.0107** | | **0.000965** | **J** | **0.000836** | **J** | 0.000299 | U | 0.000330 | U |
| | MW-133-141 | 8/16/17 | PES | ESC | 141 | -101.02 | 0.955 | U | – | – | **0.000766** | **J** | 0.000489 | U | 0.000334 | U | 0.000786 | U | 0.000311 | U | 0.000314 | U | 0.000265 | U | 0.000297 | U | 0.000328 | U |
| MW-134 | MW-134-20 | 8/29/17 | PES | ESC | 20 | 21.40 | 1.12 | U | – | – | 0.00197 | U | 0.000571 | U | 0.000391 | U | 0.000919 | U | 0.000363 | U | 0.000367 | U | 0.000309 | U | 0.000347 | U | 0.000383 | U |
| | MW-134-43 | 8/29/17 | PES | ESC | 43 | -1.60 | 0.984 | U | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | **0.00863** | | **0.0551** | | **2.58** | | **0.0111** | **J** | **0.217** | |
| | MW-134-50 | 8/29/17 | PES | ESC | 50 | -8.60 | **1.35** | | – | – | 0.000297 | U | 0.000477 | U | 0.000327 | U | 0.000767 | U | **17.9** | | **2.34** | | **0.740** | | 0.0290 | U | **0.0196** | |
| | MW-134-60 | 8/29/17 | PES | ESC | 60 | -18.60 | **0.447** | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000771 | U | **0.0770** | | **0.00544** | | **4.46** | | 0.00729 | U | **0.0118** | |
| | MW-134-70 | 8/29/17 | PES | ESC | 70 | -28.60 | 1.11 | U | – | – | 0.000344 | U | 0.000554 | U | 0.000379 | U | 0.000890 | U | **0.0742** | | **0.0111** | | **0.0468** | | 0.000337 | U | **0.0426** | |
| | MW-134-80 | 8/29/17 | PES | ESC | 80 | -38.60 | 0.970 | U | – | – | 0.000289 | U | 0.000464 | U | 0.000318 | U | 0.000746 | U | **0.0105** | **J** | **0.00316** | **J** | **0.0119** | **J** | 0.000282 | U | **0.00656** | **J** |
| | B-903-100 | 8/29/17 | PES | ESC | 80 (dup) | -38.60 | 0.893 | U | – | – | 0.000284 | U | 0.000457 | U | 0.000313 | U | 0.000735 | U | **0.0407** | **J** | **0.0132** | **J** | **0.0725** | **J** | 0.000278 | U | **0.0143** | **J** |
| | MW-134-90 | 8/29/17 | PES | ESC | 90 | -48.60 | 1.08 | U | – | – | 0.000343 | U | 0.000551 | U | 0.000377 | U | 0.000886 | U | **0.000676** | **J** | 0.000354 | U | 0.00747 | U | 0.00838 | U | 0.000370 | U |
| MW-135 | MW-135-16 | 8/24/17 | PES | ESC | 14 | 25.12 | **641** | **z** | – | – | 0.0329 | U | **0.166** | **J** | **0.0750** | **J** | **0.331** | **J** | **933** | | **113** | | **329** | | **0.700** | | **17.0** | |
| | MW-135-20 | 8/24/17 | PES | ESC | 20 | 19.12 | **0.277** | | – | – | 0.00769 | U | 0.0123 | U | 0.00845 | U | 0.0198 | U | **1.73** | | **0.461** | | **0.408** | | 0.00752 | U | **0.0241** | **J** |
| | MW-135-30 | 8/24/17 | PES | ESC | 30 | 9.12 | **10.4** | **z** | – | – | 0.000287 | U | **0.00159** | **J** | 0.000315 | U | **0.00135** | **J** | **109** | | **2.90** | | **1.98** | | **0.00363** | | **0.0430** | |
| | MW-135-36 | 8/24/17 | PES | ESC | 36 | 3.12 | **0.733** | | – | – | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | **20.1** | | **0.0571** | | **0.154** | | **0.000907** | **J** | **0.00962** | |
| | MW-135-40 | 8/24/17 | PES | ESC | 40 | -0.88 | **4.34** | | – | – | 0.000322 | U | 0.000518 | U | 0.000354 | U | 0.000832 | U | **10.6** | | **2.71** | | **12.8** | | **0.00769** | | **0.405** | |
| | MW-135-45 | 8/24/17 | PES | ESC | 45 | -5.88 | **5.09** | **z** | – | – | 0.000321 | U | 0.000515 | U | 0.000353 | U | 0.000829 | U | **69.7** | | **3.10** | | **5.35** | | **0.00859** | | **0.00963** | |
| | MW-135-55 | 8/24/17 | PES | ESC | 55 | -15.88 | **0.157** | | – | – | 0.000293 | U | 0.000471 | U | 0.000323 | U | 0.000758 | U | **8.68** | | **0.0673** | | **0.0594** | | 0.000287 | U | **0.00105** | **J** |
| | MW-135-65 | 8/24/17 | PES | ESC | 65 | -25.88 | **0.161** | | – | – | 0.000320 | U | 0.000515 | U | 0.000352 | U | 0.000828 | U | **0.190** | | **0.00881** | | **0.0170** | | 0.000313 | U | 0.000345 | U |
| | MW-135-80 | 8/24/17 | PES | ESC | 80 | -40.88 | **0.138** | | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000780 | U | **0.0106** | | **0.000372** | **J** | **0.00115** | | 0.000295 | U | 0.000325 | U |
| MW-136 | MW-136-35 | 8/28/17 | PES | ESC | 35 | 16.82 | – | | – | – | 0.000284 | U | 0.000457 | U | 0.000313 | U | 0.000735 | U | **0.00777** | | **0.000437** | **J** | **0.0117** | | 0.000278 | U | 0.000306 | U |
| | B-902-15 | 8/28/17 | PES | ESC | 35 (dup) | 16.82 | – | | – | – | 0.000295 | U | 0.000474 | U | 0.000324 | U | 0.000762 | U | **0.00621** | | **0.000324** | **J** | **0.0141** | | 0.000288 | U | 0.000318 | U |
| | MW-136-44 | 8/28/17 | PES | ESC | 44 | 7.82 | – | | – | – | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.0853** | **UJ** | **0.00255** | | **0.0174** | | 0.000296 | U | 0.000327 | U |
| | MW-136-50 | 8/28/17 | PES | ESC | 50 | 1.82 | – | | – | – | 0.000311 | U | 0.000499 | U | 0.000342 | U | 0.000803 | U | 0.000318 | U | 0.000321 | U | 0.00677 | U | 0.00759 | U | 0.000335 | U |
| | MW-136-65 | 8/28/17 | PES | ESC | 65 | -13.18 | – | | – | – | **0.000838** | **J** | 0.000472 | U | 0.000323 | U | 0.000759 | U | 0.000300 | U | 0.000303 | U | 0.000256 | U | 0.000287 | U | 0.000316 | U |
| | MW-136-75 | 8/28/17 | PES | ESC | 75 | -23.18 | – | | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | 0.000307 | U | 0.000310 | U | 0.000261 | U | 0.000293 | U | 0.000323 | U |
| | MW-136-85 | 8/28/17 | PES | ESC | 85 | -33.18 | – | | – | – | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | 0.000308 | U | 0.000311 | U | 0.000262 | U | 0.000295 | U | 0.000325 | U |
| | MW-136-95 | 8/28/17 | PES | ESC | 95 | -43.18 | – | | – | – | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | 0.000309 | U | 0.000312 | U | 0.000263 | U | 0.000295 | U | 0.000326 | U |
| MW-137 | MW-137-25 | 8/31/17 | PES | ESC | 25 | 26.72 | 0.0370 | U | – | – | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000761 | U | **0.00174** | | **0.00245** | | **0.000783** | **J** | 0.000288 | U | 0.000317 | U |
| | MW-137-45 | 8/31/17 | PES | ESC | 45 | 6.72 | 0.0384 | U | – | – | 0.00764 | U | 0.0122 | U | 0.00840 | U | 0.0197 | U | 0.00781 | U | 0.00790 | U | **0.00753** | **J** | 0.00747 | U | 0.00824 | U |
| | MW-137-75 | 8/31/17 | PES | ESC | 75 | -23.28 | – | | – | – | **0.000533** | **J** | 0.000477 | U | 0.000326 | U | 0.000766 | U | 0.000303 | U | 0.000306 | U | 0.000258 | U | 0.000290 | U | 0.000319 | U |
| | MW-137-85 | 9/1/17 | PES | ESC | 85 | -33.28 | 0.0406 | U | – | – | 0.000324 | U | 0.000520 | U | 0.000356 | U | 0.000837 | U | 0.000331 | U | 0.000334 | U | 0.000282 | U | 0.000316 | U | 0.000349 | U |
| | MW-137-95 | 9/1/17 | PES | ESC | 95 | -43.28 | 0.0363 | U | – | – | 0.000289 | U | 0.000465 | U | 0.000318 | U | 0.000747 | U | 0.000296 | U | 0.000299 | U | 0.000252 | U | 0.000283 | U | 0.000312 | U |
| | MW-137-115 | 9/1/17 | PES | ESC | 115 | -63.28 | 0.0415 | U | – | – | 0.000330 | U | 0.000531 | U | 0.000363 | U | 0.000854 | U | 0.000338 | U | 0.000341 | U | 0.000287 | U | 0.000323 | U | 0.000356 | U |
| MW-139 | MW-139-20 | 9/13/17 | PES | ESC | 20 | 19.76 | – | | – | – | 0.000312 | U | 0.000502 | U | 0.000344 | U | 0.000807 | U | **0.0138** | **J** | 0.000323 | U | **0.000500** | **J** | 0.000305 | U | **0.00397** | |
| | MW-139-31 | 9/13/17 | PES | ESC | 31 | 8.76 | – | | – | – | 0.000289 | U | 0.000464 | U | 0.000318 | U | 0.000747 | U | **0.00308** | | **0.000467** | **J** | **0.00814** | | 0.000282 | U | **0.00139** | |
| | MW-139-41 | 9/13/17 | PES | ESC | 41 | -1.24 | – | | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000750 | U | **0.0126** | | **0.00100** | **J** | **0.0982** | | **0.000407** | **J** | **0.00209** | |
| | MW-139-51 | 9/13/17 | PES | ESC | 51 | -11.24 | – | | – | – | 0.000312 | U | 0.000501 | U | 0.000343 | U | 0.000805 | U | **0.000397** | **J** | 0.000322 | U | **0.000763** | **J** | 0.000305 | U | 0.000336 | U |
| | MW-139-60 | 9/13/17 | PES | ESC | 60 | -20.24 | – | | – | – | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000750 | U | 0.000296 | U | 0.000300 | U | 0.000252 | U | 0.000284 | U | 0.000313 | U |
| | MW-139-70 | 9/13/17 | PES | ESC | 70 | -30.24 | – | | – | – | 0.000319 | U | 0.000512 | U | 0.000350 | U | 0.000824 | U | 0.000326 | U | 0.000329 | U | 0.000277 | U | 0.000312 | U | 0.000343 | U |
| | MW-139-80 | 9/13/17 | PES | ESC | 80 | -40.24 | – | | – | – | 0.000305 | U | 0.000490 | U | 0.000336 | U | 0.000789 | U | 0.000780 | U | 0.000315 | U | 0.000266 | U | 0.000298 | U | 0.000329 | U |
| MW-141 | MW-141-15 | 9/18/17 | PES | ESC | 15 | 24.54 | – | | – | – | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000787 | U | 0.000311 | U | 0.000315 | U | **0.00128** | | 0.000298 | U | **0.000388** | **J** |
| | MW-141-35 | 9/18/17 | PES | ESC | 35 | 4.54 | – | | – | – | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | 0.000320 | U | 0.000324 | U | **0.000473** | **J** | 0.000306 | U | 0.000338 | U |
| | MW-141-46 | 9/18/17 | PES | ESC | 46 | -6.46 | – | | – | – | 0.000295 | U | 0.000475 | U | 0.000325 | U | 0.000763 | U | **0.000357** | **J** | **0.000424** | **J** | **0.00329** | | 0.000289 | U | **0.00194** | |
| | MW-141-56 | 9/18/17 | PES | ESC | 56 | -16.46 | – | | – | – | 0.000287 | U | 0.000462 | U | 0.000316 | U | 0.000742 | U | 0.000294 | U | 0.000297 | U | **0.000474** | **J** | 0.000281 | U | 0.000310 | U |
| | MW-141-65 | 9/18/17 | PES | ESC | 65 | -25.46 | – | | – | – | 0.000284 | U | 0.000457 | U | 0.000312 | U | 0.000734 | U | 0.000290 | U | 0.000293 | U | 0.000247 | U | 0.000278 | U | 0.000306 | U |
| | MW-141-75 | 9/18/17 | PES | ESC | 75 | -35.46 | – | | – | – | **0.000480** | **J** | 0.000463 | U | 0.000317 | U | 0.000744 | U | 0.000294 | U | 0.000297 | U | 0.000251 | U | 0.000281 | U | 0.000310 | U |
| | MW-141-85 | 9/18/17 | PES | ESC | 85 | -45.46 | – | | – | – | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | 0.000322 | U | 0.000326 | U | 0.000274 | U | 0.000308 | U | 0.000340 | U |
| | MW-141-95 | 9/18/17 | PES | ESC | 95 | -55.46 | – | | – | – | 0.000323 | U | 0.000520 | U | 0.000356 | U | 0.000836 | U | 0.000331 | U | 0.000334 | U | 0.000281 | U | 0.000316 | U | 0.000349 | U |
| | MW-141-105 | 9/19/17 | PES | ESC | 105 | -65.46 | – | | – | – | 0.000322 | U | 0.000518 | U | 0.000355 | U | 0.000833 | U | 0.000330 | U | 0.000333 | U | 0.000281 | U | 0.000315 | U | 0.000347 | U |
| MW-152 | MW-152-5 | 3/13/18 | PES | ESC | 5 | 35.00 | – | | – | – | 0.000304 | U | **0.000678** | **J** | 0.000335 | U | **0.00131** | **J** | **0.116** | | **0.000861** | **J** | 0.000265 | U | 0.000297 | U | 0.000328 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW-152 (continued) | MW-152-15 | 3/13/18 | PES | ESC | 15 | 25.00 | – | | – | | – | | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | **6.12** | | **0.101** | | **0.00864** | | 0.000292 | U | 0.000322 | U |
| | MW-152-25 | 3/13/18 | PES | ESC | 25 | 15.00 | – | | – | | – | | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.276** | | **0.00768** | | **1.11** | | **0.00188** | | **0.00488** | |
| | MW-152-35 | 3/13/18 | PES | ESC | 35 | 5.00 | – | | – | | – | | 0.000296 | U | 0.000476 | U | 0.000326 | U | 0.000765 | U | **1.23** | | **0.0203** | | **0.776** | | **0.00168** | | **0.0282** | |
| | MW-152-45 | 3/13/18 | PES | ESC | 45 | -5.00 | – | | – | | – | | 0.000304 | U | **0.000853** | **J** | 0.000335 | U | **0.00173** | **J** | **122** | | **0.532** | **J** | **7.54** | | **0.00382** | | **1.06** | |
| | MW-152-55 | 3/13/18 | PES | ESC | 55 | -15.00 | – | | – | | – | | 0.000306 | U | **0.000571** | **J** | 0.000336 | U | 0.000791 | U | **57.4** | | **0.0545** | | **4.37** | | **0.0117** | | **0.0949** | |
| | MW-152-60 | 3/13/18 | PES | ESC | 60 | -20.00 | – | | – | | – | | 0.000292 | U | 0.000470 | U | 0.000321 | U | 0.000755 | U | **3.92** | | **0.00733** | | **0.167** | | **0.000850** | **J** | **0.0100** | |
| P01 | P01-05 | 2/12/14 | SES | F&BI | 5 | 35.50 | 2 | U | 50 | U | 250 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.06 | U | – | | – | | – | | – | | – | |
| | P01-10 | 2/12/14 | SES | F&BI | 10 | 30.50 | 2 | U | **230** | **x** | 250 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.06 | U | – | | – | | – | | – | | – | |
| P02 | P02-05 | 2/12/14 | SES | F&BI | 5 | 34.50 | – | | – | | – | | – | | – | | – | | – | | **0.16** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | P02-07.5 | 2/12/14 | SES | F&BI | 7.5 | 32.00 | – | | – | | – | | – | | – | | – | | – | | **1.2** | | **0.072** | | 0.05 | U | 0.05 | U | 0.05 | U |
| P03 | P03-05 | 2/12/14 | SES | F&BI | 5 | 34.50 | – | | – | | – | | – | | – | | – | | – | | **0.36** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| P03 | P03-07.5 | 2/12/14 | SES | F&BI | 7.5 | 32.00 | – | | – | | – | | – | | – | | – | | – | | **0.061** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| P04 | P04-05 | 2/12/14 | SES | F&BI | 7.5 | 32.50 | – | | – | | – | | – | | – | | – | | – | | **0.55** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | P04-10 | 2/12/14 | SES | F&BI | 10 | 30.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| P05 | P05-05 | 2/12/14 | SES | F&BI | 5 | 35.00 | – | | – | | – | | – | | – | | – | | – | | **0.049** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | P05-07.5 | 2/12/14 | SES | F&BI | 7.5 | 32.50 | – | | – | | – | | – | | – | | – | | – | | **0.031** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| P06 | P06-07.5 | 2/12/14 | SES | F&BI | 7.5 | 32.50 | – | | – | | – | | – | | – | | – | | – | | **0.31** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | P06-10 | 2/12/14 | SES | F&BI | 10 | 30.00 | – | | – | | – | | – | | – | | – | | – | | **0.083** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| R-MW1 | Unknown | 10/22/92 | Roux | Unknown | 5 | 32.78 | – | | – | | – | | – | | – | | – | | – | | **5.8** | | **0.35** | | – | | 0.005 | U | 0.010 | U |
| W-MW-03 (P-07) | SB-W-07-0135 | 1/26/12 | WW | ARI | 13.5-14 | 25.23 | – | | – | | – | | **0.0007** | **J** | **0.0024** | | 0.0009 | U | **0.0008** | **J** | **0.0038** | | **0.0005** | **J** | **0.0008** | **J** | 0.0009 | U | 0.0009 | U |
| | SB-W-07-0275 | 1/26/12 | WW | ARI | 27.5-28 | 11.23 | – | | – | | – | | **0.0005** | **J** | **0.0013** | | 0.0009 | U | 0.0018 | U | **0.12** | | **0.0053** | | **0.083** | | **0.0013** | | 0.0009 | U |
| | SB-W-07-0335 | 1/26/12 | WW | ARI | 33.5-34 | 5.23 | – | | – | | – | | 0.0008 | U | **0.0012** | | 0.0008 | U | **0.0004** | **J** | **18** | **B** | **0.05** | | **0.011** | | 0.0008 | U | 0.0008 | U |
| | SB-W-07-0430 | 1/26/12 | WW | ARI | 43-43.5 | -4.27 | – | | – | | – | | 0.0008 | U | **0.0009** | | 0.0008 | U | 0.0016 | U | **46** | **B** | **0.7** | | **0.091** | | **0.0009** | | 0.0008 | U |
| | SB-W-07-0530 | 1/26/12 | WW | ARI | 53-53.5 | -14.27 | – | | – | | – | | 0.0008 | U | **0.0012** | | 0.0008 | U | 0.0016 | U | **18** | **B** | **1.1** | | **0.63** | | **0.0009** | | 0.0008 | U |
| | SB-W-07-0630 | 1/26/12 | WW | ARI | 63-63.5 | -24.27 | – | | – | | – | | 0.0010 | U | **0.0007** | **J** | 0.0010 | U | 0.0020 | U | **0.0012** | **B** | 0.0010 | U | 0.0010 | U | 0.0010 | U | 0.0010 | U |
| | SB-W-07-0780 | 1/26/12 | WW | ARI | 78-78.5 | -39.27 | – | | – | | – | | 0.0008 | U | **0.0004** | **J** | 0.0008 | U | 0.0016 | U | **0.0023** | **B** | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U |
| W-MW-04 (P-08) | SB-W-08-0090 | 1/28/12 | WW | ARI | 9-9.5 | 26.03 | – | | – | | – | | 0.27 | U | 0.27 | U | 0.27 | U | 0.54 | U | **9.5** | **T** | **2.3** | | **7.3** | | **0.22** | **J** | **0.71** | |
| | SB-W-08-0155 | 1/28/12 | WW | ARI | 15.5-16 | 19.53 | – | | – | | – | | 0.0009 | U | **0.0006** | **J** | 0.0009 | U | 0.0018 | U | **0.38** | **T** | **0.11** | | **0.12** | | **0.0039** | | **0.12** | |
| | SB-W-08-0265 | 1/28/12 | WW | ARI | 26.5-27 | 8.53 | – | | – | | – | | 0.0009 | U | **0.0006** | **J** | 0.0009 | U | 0.0019 | U | **0.37** | **T** | **0.0052** | | **0.0043** | | 0.0009 | U | 0.0009 | U |
| | SB-W-08-0380 | 1/28/12 | WW | ARI | 38-38.5 | -2.97 | – | | – | | – | | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0016 | U | **0.48** | **T** | **0.0019** | | **0.0012** | | 0.0008 | U | 0.0008 | U |
| | SB-W-08-0480 | 1/28/12 | WW | ARI | 48-48.5 | -12.97 | – | | – | | – | | **0.0005** | **J** | **0.0013** | | 0.0009 | U | 0.0018 | U | **0.025** | **T** | **0.0007** | **J** | **0.0009** | **J** | 0.0009 | U | 0.0009 | U |
| | SB-W-08-9480 | 1/28/12 | WW | ARI | 48-48.5 (dup) | -12.97 | – | | – | | – | | **0.0004** | **J** | **0.0008** | **J** | 0.0009 | U | 0.0018 | U | **0.016** | **T** | 0.0009 | U | **0.0005** | **J** | 0.0009 | U | 0.0009 | U |
| | SB-W-08-0590 | 1/28/12 | WW | ARI | 59-59.5 | -23.97 | – | | – | | – | | 0.13 | U | 0.13 | U | 0.13 | U | 0.26 | U | **10** | **T** | **0.081** | **J** | 0.13 | U | 0.13 | U | 0.13 | U |
| | SB-W-08-0710 | 1/29/12 | WW | ARI | 71-71.5 | -35.97 | – | | – | | – | | 0.2 | U | 0.2 | U | 0.2 | U | 0.4 | U | **9.4** | **T** | **0.33** | | 0.2 | U | 0.2 | U | 0.2 | U |
| | SB-W-08-0760 | 1/29/12 | WW | ARI | 76-76.5 | -40.97 | – | | – | | – | | 0.0009 | U | 0.0009 | | 0.0009 | U | 0.0018 | U | **0.017** | **T** | 0.0009 | U | 0.0009 | U | 0.0009 | U | 0.0009 | U |
| **On Property Statistics** | | | | | | Number of Analytes Measured | 106 | | 4 | | 4 | | 682 | | 682 | | 682 | | 682 | | 818 | | 818 | | 817 | | 818 | | 818 | |
| | | | | | | Number of Analytes Detected | 60 | | 1 | | 0 | | 71 | | 78 | | 21 | | 27 | | 667 | | 535 | | 574 | | 229 | | 349 | |
| | | | | | | Frequency of Detection | 57% | | 25% | | 0% | | 10% | | 11% | | 3% | | 4% | | 82% | | 65% | | 70% | | 28% | | 43% | |
| | | | | | | Maximum Detection | 260 | | 230 | x | – | | 0.304 | | 0.580 | | 4.74 | | 6.02 | | 16,400 | | 113 | | 329 | | 0.70 | | 17.0 | |
| | | | | | | Minimum Detection | 0.0353 | U | 50.0 | U | 250 | U | 0.000281 | U | 0.000325 | U | 0.000297 | UJ | 0.000400 | J | 0.000290 | U | 0.000293 | U | 0.000247 | U | 0.000275 | U | 0.000306 | UJ |
| **Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-1A | B-1/S-2 | 12/1/89 | HC | ARI | 10.5 | – | **800** | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| B-2A | B-2/S-1 | 12/1/89 | HC | ARI | 10 | – | **12** | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| B-212 | B-212-15 | 9/8/17 | PES | ESC | 15 | 42.61 | 0.977 | U | – | | – | | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | 0.000318 | U | 0.000321 | U | 0.000271 | UJ | 0.000304 | U | 0.000335 | U |
| | B-212-21 | 9/8/17 | PES | ESC | 21 | 36.61 | **63.0** | **q** | – | | – | | **0.000346** | **J** | **0.000649** | **J** | **0.00103** | **J** | **0.0131** | | **0.000490** | **J** | 0.000290 | U | 0.000244 | UJ | 0.000274 | U | 0.000302 | U |
| | B-212-35 | 9/8/17 | PES | ESC | 35 | 22.61 | 1.98 | U | – | | – | | 0.000294 | U | 0.000473 | U | 0.000324 | U | 0.000761 | U | **0.000955** | **J** | 0.000304 | U | 0.000256 | UJ | 0.000288 | U | 0.000317 | U |
| | B-212-45 | 9/8/17 | PES | ESC | 45 | 12.61 | **2.81** | **J** | – | | – | | **0.000303** | **J** | 0.000454 | U | 0.000311 | U | 0.000730 | U | 0.000289 | U | 0.000292 | U | 0.000246 | UJ | 0.000276 | U | 0.000304 | U |
| | B-907-25 | 9/8/17 | PES | ESC | 45 (dup) | 12.61 | 1.16 | U | – | | – | | 0.00807 | U | 0.0129 | U | 0.00887 | U | 0.0208 | U | 0.00825 | U | 0.00834 | U | 0.00703 | U | 0.00789 | U | 0.00870 | U |
| | B-212-55 | 9/8/17 | PES | ESC | 55 | 2.61 | **3.40** | **J** | – | | – | | 0.000305 | U | 0.000490 | U | 0.000335 | U | 0.000787 | U | 0.000311 | U | 0.000315 | U | 0.000265 | UJ | 0.000298 | U | 0.000328 | U |
| | B-212-65 | 9/8/17 | PES | ESC | 65 | -7.39 | 1.29 | U | – | | – | | 0.000313 | U | 0.000504 | U | 0.000345 | U | 0.000810 | U | 0.000320 | U | 0.000324 | U | 0.000273 | U | 0.000306 | U | 0.000338 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-212 (continued) | B-212-75 | 9/8/17 | PES | ESC | 75 | -17.39 | 1.05 | U | – | – | 0.000314 | U | 0.000505 | U | 0.000345 | U | 0.000812 | U | 0.000321 | U | 0.000324 | U | 0.000273 | U | 0.000307 | U | 0.000338 | U |
| | B-212-85 | 9/11/17 | PES | ESC | 85 | -27.39 | 0.0385 | U | – | – | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | 0.000313 | U | 0.000317 | U | 0.000267 | U | 0.000300 | U | 0.000330 | U |
| | B-212-95 | 9/11/17 | PES | ESC | 95 | -37.39 | 0.0422 | U | – | – | 0.000354 | U | 0.000568 | U | 0.000389 | U | 0.000913 | U | 0.000361 | U | 0.000365 | U | 0.000308 | U | 0.000345 | U | 0.000381 | U |
| | B-212-100 | 9/11/17 | PES | ESC | 100 | -42.39 | 0.0409 | U | – | – | 0.000326 | U | 0.000524 | U | 0.000358 | U | 0.000842 | U | 0.000333 | U | 0.000337 | U | 0.000284 | U | 0.000319 | U | 0.000351 | U |
| B-213 | B-213-15 | 9/5/17 | PES | ESC | 15 | 42.42 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | **0.00289** | | 0.000323 | U | 0.000272 | U | 0.000306 | U | 0.000337 | U |
| | B-213-21.5 | 9/5/17 | PES | ESC | 22 | 35.92 | – | | – | – | **0.000385** | **J** | **0.000540** | **J** | **0.000991** | **J** | **0.0126** | **J** | **0.00263** | | 0.000291 | U | 0.000245 | U | 0.000275 | U | 0.000303 | U |
| | B-213-35 | 9/5/17 | PES | ESC | 35 | 22.42 | – | | – | – | 0.000292 | U | 0.000470 | U | 0.000322 | U | 0.000756 | U | 0.000299 | U | 0.000302 | U | 0.000254 | U | 0.000286 | U | 0.000315 | U |
| | B-213-45 | 9/5/17 | PES | ESC | 45 | 12.42 | – | | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | 0.000306 | U | 0.000309 | U | 0.000260 | U | 0.000293 | U | 0.000323 | U |
| | B-213-55 | 9/5/17 | PES | ESC | 55 | 2.42 | – | | – | – | 0.000294 | U | 0.000472 | U | 0.000323 | U | 0.000760 | U | 0.000300 | U | 0.000304 | U | 0.000256 | U | 0.000287 | U | 0.000317 | U |
| | B-213-65 | 9/5/17 | PES | ESC | 65 | -7.58 | – | | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000768 | U | 0.000304 | U | 0.000307 | U | 0.000259 | U | 0.000290 | U | 0.000320 | U |
| | B-213-75 | 9/5/17 | PES | ESC | 75 | -17.58 | – | | – | – | 0.000295 | U | 0.000474 | U | 0.000325 | U | 0.000763 | U | 0.000302 | U | 0.000305 | U | 0.000257 | U | 0.000289 | U | 0.000318 | U |
| | B-213-85 | 9/5/17 | PES | ESC | 85 | -27.58 | – | | – | – | 0.000329 | U | 0.000529 | U | 0.000362 | U | 0.000851 | U | 0.000336 | U | 0.000340 | U | 0.000286 | U | 0.000322 | U | 0.000355 | U |
| | B-213-95 | 9/6/17 | PES | ESC | 95 | -37.58 | – | | – | – | 0.000334 | U | 0.000536 | U | 0.000367 | U | 0.000862 | U | 0.000341 | U | 0.000345 | U | 0.000290 | U | 0.000326 | U | 0.000359 | U |
| | B-213-105 | 9/6/17 | PES | ESC | 105 | -47.58 | – | | – | – | 0.000310 | U | 0.000499 | U | 0.000341 | U | 0.000802 | U | 0.000317 | U | 0.000321 | U | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| | B-906-110 | 9/6/17 | PES | ESC | 105 (dup) | -47.58 | – | | – | – | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | 0.000317 | U | 0.000320 | U | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| | B-213-115 | 9/6/17 | PES | ESC | 115 | -57.58 | – | | – | – | 0.000331 | U | 0.000532 | U | 0.000364 | U | 0.000856 | U | 0.000338 | U | 0.000342 | U | 0.000288 | U | 0.000324 | U | 0.000357 | U |
| | B-213-125 | 9/6/17 | PES | ESC | 125 | -67.58 | – | | – | – | 0.000400 | U | 0.000642 | U | 0.000440 | U | 0.00103 | U | 0.000408 | U | 0.000413 | U | 0.000348 | U | 0.000391 | U | 0.000431 | U |
| B-214 | B-214-15 | 9/7/17 | PES | ESC | 15 | 42.42 | – | | – | – | 0.000290 | U | 0.000465 | U | 0.000318 | U | 0.000748 | U | 0.000296 | U | 0.000299 | U | 0.000252 | UJ | 0.000283 | U | 0.000312 | U |
| | B-214-25 | 9/7/17 | PES | ESC | 25 | 32.42 | – | | – | – | 0.000285 | U | 0.000459 | U | 0.000314 | U | 0.000738 | U | 0.000292 | U | 0.000295 | U | 0.000248 | UJ | 0.000279 | U | 0.000308 | U |
| | B-214-35 | 9/7/17 | PES | ESC | 35 | 22.42 | – | | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000758 | U | 0.000300 | U | 0.000303 | U | 0.000255 | UJ | 0.000287 | U | 0.000316 | U |
| | B-214-45 | 9/7/17 | PES | ESC | 45 | 12.42 | – | | – | – | 0.000287 | U | 0.000462 | U | 0.000316 | U | 0.000743 | U | 0.000294 | U | 0.000297 | U | 0.000250 | UJ | 0.000281 | U | 0.000310 | U |
| | B-214-55 | 9/7/17 | PES | ESC | 55 | 2.42 | – | | – | – | **0.000343** | **J** | 0.000482 | U | 0.000330 | U | 0.000775 | U | 0.000306 | U | 0.000310 | U | 0.000261 | UJ | 0.000293 | U | 0.000323 | U |
| | B-214-65 | 9/7/17 | PES | ESC | 65 | -7.58 | – | | – | – | 0.000347 | U | 0.000559 | U | 0.000382 | U | 0.000898 | U | 0.000355 | U | 0.000359 | U | 0.000302 | U | 0.000340 | U | 0.000375 | U |
| | B-214-75 | 9/7/17 | PES | ESC | 75 | -17.58 | – | | – | – | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000775 | U | 0.000307 | U | 0.000310 | U | 0.000261 | U | 0.000293 | U | 0.000323 | U |
| | B-214-85 | 9/7/17 | PES | ESC | 85 | -27.58 | – | | – | – | 0.000325 | U | 0.000522 | U | 0.000357 | U | 0.000839 | U | 0.000332 | U | 0.000335 | U | 0.000282 | U | 0.000317 | U | 0.000350 | U |
| | B-908-100 | 9/7/17 | PES | ESC | 85 (dup) | -27.58 | – | | – | – | 0.000302 | U | 0.000485 | U | 0.000332 | U | 0.000780 | U | 0.000309 | U | 0.000312 | U | 0.000263 | U | 0.000295 | U | 0.000325 | U |
| | B-214-95 | 9/7/17 | PES | ESC | 95 | -37.58 | – | | – | – | 0.000296 | U | 0.000476 | U | 0.000326 | U | 0.000766 | U | 0.000303 | U | 0.000306 | U | 0.000258 | U | 0.000290 | U | 0.000319 | U |
| | B-214-105 | 9/7/17 | PES | ESC | 105 | -47.58 | – | | – | – | 0.000342 | U | 0.000549 | U | 0.000376 | U | 0.000883 | U | 0.000349 | U | 0.000353 | U | 0.000297 | U | 0.000334 | U | 0.000368 | U |
| | B-214-115 | 9/11/17 | PES | ESC | 115 | -57.58 | – | | – | – | 0.000329 | U | 0.000529 | U | 0.000362 | U | 0.000851 | U | 0.000337 | U | 0.000340 | U | 0.000287 | U | 0.000322 | U | 0.000355 | U |
| | B-214-120 | 9/11/17 | PES | ESC | 120 | -62.58 | – | | – | – | 0.000319 | U | 0.000513 | U | 0.000351 | U | 0.000824 | U | 0.000326 | U | 0.000329 | U | 0.000278 | U | 0.000312 | U | 0.000344 | U |
| B-215 | B-215-15 | 9/12/17 | PES | ESC | 15 | 38.95 | – | | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | 0.000299 | U | 0.000303 | U | 0.000255 | U | 0.000286 | U | 0.000316 | U |
| | B-215-25 | 9/12/17 | PES | ESC | 25 | 28.95 | – | | – | – | 0.000289 | U | 0.000464 | U | 0.000318 | U | 0.000747 | U | **0.00480** | | 0.000299 | U | 0.000252 | U | 0.000283 | U | 0.000311 | U |
| | B-215-35 | 9/12/17 | PES | ESC | 35 | 18.95 | – | | – | – | 0.000318 | U | 0.000512 | U | 0.000350 | U | 0.000823 | U | **0.0277** | | **0.00195** | | **0.0620** | | 0.000311 | U | 0.000343 | U |
| | B-215-45 | 9/12/17 | PES | ESC | 45 | 8.95 | – | | – | – | 0.000287 | U | 0.000462 | U | 0.000316 | U | 0.000743 | U | 0.000294 | U | 0.000297 | U | 0.000250 | U | 0.000281 | U | 0.000310 | U |
| | B-215-55 | 9/12/17 | PES | ESC | 55 | -1.05 | – | | – | – | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | 0.000306 | U | 0.000309 | U | 0.000260 | U | 0.000292 | U | 0.000322 | U |
| | B-215-65 | 9/12/17 | PES | ESC | 65 | -11.05 | – | | – | – | 0.00772 | U | 0.0124 | U | 0.00849 | U | 0.0199 | U | **11.1** | | **1.02** | | **1.55** | | 0.00755 | U | 0.00833 | U |
| | B-215-75 | 9/12/17 | PES | ESC | 75 | -21.05 | – | | – | – | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | 0.000304 | U | 0.000308 | U | 0.000259 | U | 0.000291 | U | 0.000321 | U |
| | B-215-85 | 9/13/17 | PES | ESC | 85 | -31.05 | – | | – | – | 0.000325 | U | 0.000523 | U | 0.000358 | U | 0.000841 | U | 0.000333 | U | 0.000336 | U | 0.000283 | U | 0.000318 | U | 0.000351 | U |
| | B-909-115 | 9/13/17 | PES | ESC | 85 (dup) | -31.05 | – | | – | – | 0.000303 | U | 0.000486 | U | 0.000333 | U | 0.000782 | U | 0.000309 | U | 0.000313 | U | 0.000263 | U | 0.000296 | U | 0.000326 | U |
| | B-215-95 | 9/13/17 | PES | ESC | 95 | -41.05 | – | | – | – | 0.000323 | U | 0.000519 | U | 0.000355 | U | 0.000835 | U | 0.000330 | U | 0.000334 | U | 0.000281 | U | 0.000316 | U | 0.000348 | U |
| BB-5 | S-6 | 3/9/97 | B&V | Unknown | 15-17 | 34.00 | 22 | U | 54 | U | 108 | U | ND | | ND | | ND | | ND | | – | | – | | – | | – | |
| | S-10 | 3/9/97 | B&V | Unknown | 25-27 | 24.00 | 22 | U | 56 | U | 112 | U | – | | – | | – | | – | | – | | – | | – | | – | |
| BB-7 | S-4 | 4/6/97 | B&V | Unknown | 10-12 | 17.00 | 26 | U | 66 | U | 132 | U | – | | – | | – | | – | | – | | – | | – | | – | |
| BB-8 | S-8 | 6/6/97 | B&V | Unknown | 20-22 | 23.60 | 20 | U | 50 | U | 100 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| BB-10 | S-6 | 8/29/97 | B&V | Unknown | 15-17 | 42.00 | 27 | U | 54 | U | 109 | U | – | | – | | – | | – | | – | | – | | – | | – | |
| BB-12 | S-3 | 3/18/98 | B&V | Unknown | 15-16.5 | 18.80 | 29 | U | 58 | U | 120 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | S-14 | 3/18/98 | B&V | Unknown | 45-46.5 | -11.20 | 29 | U | 58 | U | 120 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| BB-13 | S-10 | 3/19/98 | B&V | Unknown | 25-27.5 | 1.90 | 34 | U | 68 | U | 140 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | S-16 | 3/19/98 | B&V | Unknown | 40-41.5 | -13.10 | 30 | U | 61 | U | 120 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| BB-14 | S-2 | 3/3/98 | B&V | Unknown | 5-6.5 | 21.30 | 32 | U | 64 | U | 130 | U | – | | – | | – | | – | | – | | – | | – | | – | |
| | S-5 | 3/3/98 | B&V | Unknown | 12.5-14 | 21.30 | 31 | U | 62 | U | 120 | U | – | | – | | – | | – | | – | | – | | – | | – | |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| BB-14 | S-9 | 3/3/98 | B&V | Unknown | 22.5-24 | 21.30 | 31 | U | 62 | U | 120 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| (continued) | S-12 | 3/3/98 | B&V | Unknown | 30-31.5 | 21.30 | 27 | U | **54** | | **120** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| CHB-07 | CHB-07-12.5-13.5 | 4/14/05 | CH2M | ARI | 12.5-13.5 | 16.50 | 7.2 | U | 6.5 | U | 13 | U | **0.0015** | | 0.0011 | U | 0.0011 | U | 0.0022 | U | 0.0011 | U | 0.0011 | U | **1.1** | | **0.0083** | | **0.027** | |
| | CHB-07-5.0-7.0 | 4/14/08 | CH2M | ARI | 5-7 | 23.50 | 5 | U | 5.9 | U | 12 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| CHB-08 | CHB-08-15.0-16.0 | 4/15/08 | CH2M | ARI | 15-16 | 16.30 | 5.6 | U | 5.9 | U | 12 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0016 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U |
| CHB-09 | CHB-09-20.0-21.5 | 4/16/08 | CH2M | ARI | 20-21.5 | 17.50 | 6.2 | U | **11** | | **23** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | CHB-09-25.0-26.5 | 4/16/08 | CH2M | ARI | 25-26.5 | 12.50 | 6.1 | U | **36** | | **130** | | 0.0012 | U | 0.0012 | U | 0.0012 | U | 0.0024 | U | 0.0012 | u | 0.0012 | U | 0.0012 | U | 0.0012 | U | 0.0012 | U |
| GEI-MW-1 | MW-1-1-2.5 | 8/22/14 | GEI | Fremont | 1 | 29.50 | 4.52 | U | 23.4 | U | 58.4 | U | 0.0181 | U | 0.0181 | U | 0.0271 | U | 18.1 | U | 0.0181 | U | 0.0181 | U | 0.0181 | U | – | | 0.0181 | U |
| GEI-MW-2 | MW-2-2-5.0 | 8/23/14 | GEI | Fremont | 5 | 26.60 | 9.29 | | 24.5 | U | 61.2 | U | 0.0391 | U | 0.0391 | U | 0.0587 | U | 39.1 | U | 0.0391 | U | 0.0391 | U | 0.0391 | U | – | | 0.0391 | U |
| | MW-2-4-10.0 | 8/23/14 | GEI | Fremont | 10 | 21.60 | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| GEI-MW-2 | MW-2-8-20.0 | 8/23/14 | GEI | Fremont | 20 | 11.60 | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| GEI-MW-3 | MW-3-4-10.0 | 8/23/14 | GEI | Fremont | 10 | 20.75 | 14.7 | U | 21.5 | U | 93.4 | U | 0.0258 | U | 0.0258 | U | 0.0388 | U | 25.8 | U | 0.0258 | U | 0.0258 | U | 0.0258 | U | – | | 0.0258 | U |
| | MW-3-10-50.0 | 8/23/14 | GEI | Fremont | 50 | -19.25 | – | | – | | – | | 0.0166 | U | 0.0166 | U | 0.0249 | U | 16.6 | U | 0.0166 | U | 0.0166 | U | 0.0166 | U | – | | 0.0166 | U |
| GEI-4 | GEI-4-2-5.0 | 8/23/14 | GEI | Fremont | 5 | 26.00 | 5.34 | U | 22.3 | U | 55.8 | U | 0.0214 | U | 0.0214 | U | 0.0321 | U | 21.4 | U | 0.0214 | U | 0.0214 | U | 0.0214 | U | – | | 0.0214 | U |
| | GEI-4-5-12.5 | 8/23/14 | GEI | Fremont | 12.5 | 18.50 | 6.08 | U | 23.7 | U | 59.3 | U | 0.0243 | U | 0.0243 | U | 0.0365 | U | 24.3 | U | 0.0243 | U | 0.0243 | U | 0.0243 | U | – | | 0.0243 | U |
| MW-1 (SCLB-3) | RS3-2.5 | 3/15/93 | EPJ | OnSite | 2.5 | 37.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS3-7.5 | 3/15/93 | EPJ | OnSite | 7.5 | 32.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS3-17.5 | 3/15/93 | EPJ | OnSite | 17.5 | 22.50 | **210** | | – | | – | | **10** | | **7.3** | | **3.7** | | **15.8** | | – | | – | | – | | – | | – | |
| | RS3-22.5/RS3-27.5 (Comp) | 3/15/93 | EPJ | OnSite | 22.5-27.5 | – | **42** | | – | | – | | **3.9** | | **0.8** | | **0.76** | | **2.49** | | – | | – | | – | | – | | – | |
| | RS3-32.5 | 3/15/93 | EPJ | OnSite | 32.5 | 7.50 | 5 | U | – | | – | | **0.15** | | 0.050 | U | 0.050 | U | 1.00 | U | – | | – | | – | | – | | – | |
| | RS3-37.5 | 3/15/93 | EPJ | OnSite | 37.5 | 2.50 | 5 | U | – | | – | | 0.050 | U | 0.050 | U | 0.050 | U | 1.00 | U | – | | – | | – | | – | | – | |
| MW-2 (SCLB-4) | RS4-2.5 | 3/15/93 | EPJ | OnSite | 2.5 | 37.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS4-7.5 | 3/15/93 | EPJ | OnSite | 7.5 | 32.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS4-12.5/RS4-17.5 | 3/15/93 | EPJ | OnSite | 12.5-17.5 | – | 5 | U | – | | – | | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | – | | – | | – | | – | | – | |
| | RS4-22.5/RS4-27.5 (Comp) | 3/15/93 | EPJ | OnSite | 22.5-27.5 | – | 5 | U | – | | – | | 0.05 | U | 0.05 | U | 0.05 | U | **0.096** | J | – | | – | | – | | – | | – | |
| | RS4-37.5 | 3/15/93 | EPJ | OnSite | 37.5 | 2.50 | **6.6** | **J** | – | | – | | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | – | | – | | – | | – | | – | |
| MW-3 (SCLB-5) | RS5-2.5/RS5-7.5 (Comp) | 3/16/93 | EPJ | OnSite | 2.5-7.5 | – | 20 | U | 50 | U | **400** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS5-12.5/RS5-17.5 (Comp) | 3/16/93 | EPJ | OnSite | 12.5-17.5 | – | **46** | | – | | – | | **0.88** | | **0.28** | | **0.97** | | **1.37** | | – | | – | | – | | – | | – | |
| | RS5-17.5 | 3/16/93 | EPJ | OnSite | 17.5 | 21.50 | – | | **430** | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS5-22.5 | 3/16/93 | EPJ | OnSite | 22.5 | 16.50 | **17** | **J** | – | | – | | **0.2** | | **0.099** | **J** | **0.33** | | **0.446** | | – | | – | | – | | – | | – | |
| | RS5-32.5 | 3/16/93 | EPJ | OnSite | 32.5 | 6.50 | **7.2** | **J** | – | | 25 | U | **0.056** | **J** | 0.05 | U | **0.061** | | **0.15** | | – | | – | | – | | – | | – | |
| | RS5-37.5 | 3/16/93 | EPJ | OnSite | 37.5 | 1.50 | 5 | U | – | | – | | 0.050 | U | 0.050 | U | 0.050 | U | 1.00 | U | – | | – | | – | | – | | – | |
| MW-4 (SCLB-6) | RS6-2.5 | 3/17/93 | EPJ | OnSite | 2.5 | 37.50 | 20 | U | 50 | U | **770** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS6-7.5 | 3/17/93 | EPJ | OnSite | 7.5 | 32.50 | 20 | U | 50 | U | **770** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS6-12.5 | 3/17/93 | EPJ | OnSite | 12.5 | 27.50 | 20 | U | 50 | U | **190** | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS6-17.5/RS6-22.5 (Comp) | 3/17/93 | EPJ | OnSite | 17.5-22.5 | – | 5.0 | U | – | | – | | 0.050 | U | 0.050 | U | 0.050 | U | **0.092** | **J** | – | | – | | – | | – | | – | |
| | RS6-27.5 | 3/17/93 | EPJ | OnSite | 27.5 | 12.50 | 5.0 | U | – | | – | | 0.050 | U | 0.050 | U | 0.050 | U | 1.00 | U | – | | – | | – | | – | | – | |
| MW-5 (SCLB-7) | RS7-2.5 | 3/17/93 | EPJ | OnSite | 2.5 | 37.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS7-7.5 | 3/17/93 | EPJ | OnSite | 7.5 | 32.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS7-12.5 | 3/17/93 | EPJ | OnSite | 12.5 | 27.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS7-17.5 | 3/17/93 | EPJ | OnSite | 17.5 | 22.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS7-22.5 | 3/17/93 | EPJ | OnSite | 22.5 | 17.50 | 20 | U | 50 | U | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| MW-6 | MW6-25 | 10/11/93 | Retec | ARI | 25 | 13.20 | **19** | | – | | – | | **3.5** | | **0.23** | | **0.44** | | **0.93** | | – | | – | | – | | – | | – | |
| MW-7 | MW7-16.5 | 10/11/93 | Retec | ARI | 16.5 | 18.60 | **4,100** | | – | | – | | **7.1** | | **160** | | **54** | | **300** | | – | | – | | – | | – | | – | |
| | MW7-18.5 | 10/11/93 | Retec | ARI | 18.5 | 16.60 | **840** | | – | | – | | **2.2** | | **30** | | **12** | | **62** | | – | | – | | – | | – | | – | |
| MW-8 | MW8-20 | 10/18/93 | Retec | AAL | 20 | 13.20 | 5 | U | – | | – | | 0.059 | U | 0.059 | U | 0.059 | U | 0.12 | U | – | | – | | – | | – | | – | |
| MW-9 | MW9-17.5 | 10/18/93 | Retec | AAL | 17.5 | 23.60 | 5 | U | – | | – | | 0.068 | U | 0.068 | U | 0.068 | U | 0.14 | U | – | | – | | – | | – | | – | |
| MW-10 | MW10-17.5 | 10/19/93 | Retec | AAL | 17.5 | 20.50 | 5 | U | – | | – | | 0.068 | U | 0.068 | U | 0.068 | U | 0.14 | U | – | | – | | – | | – | | – | |
| MW102 (B102) | B102-20 | 7/17/12 | SES | F&BI | 20 | 29.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-30 | 7/17/12 | SES | F&BI | 30 | 19.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-38 | 7/17/12 | SES | F&BI | 38 | 11.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | 2,000 | 2,000 | 0.030 | 0.273 | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW102 (B102) (continued) | B102-40 | 7/17/12 | SES | F&BI | 40 | 9.50 | – | – | – | – | – | – | – | – | | – | | – | | – | | – | |
| | B102-49 | 7/17/12 | SES | F&BI | 49 | 0.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-60 | 7/17/12 | SES | F&BI | 60 | -10.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-70 | 7/18/12 | SES | F&BI | 70 | -20.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-80 | 7/19/12 | SES | F&BI | 80 | -30.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-90 | 7/19/12 | SES | F&BI | 90 | -40.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-100 | 7/20/12 | SES | F&BI | 100 | -50.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-110 | 7/20/12 | SES | F&BI | 110 | -60.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-120 | 7/23/12 | SES | F&BI | 120 | -70.50 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW103 (B103) | B103-10 | 7/25/12 | SES | F&BI | 10 | 29.80 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-18 | 7/25/12 | SES | F&BI | 18 | 21.80 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-30 | 7/25/12 | SES | F&BI | 30 | 9.80 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-40 | 7/25/12 | SES | F&BI | 40 | -0.20 | – | – | – | – | – | – | – | **4.6** | | **0.77** | | **0.12** | | 0.05 | U | 0.05 | U |
| | B103-45 | 7/25/12 | SES | F&BI | 45 | -5.20 | – | – | – | – | – | – | – | **5.3** | | **0.48** | | **0.24** | | 0.05 | U | 0.05 | U |
| | B103-55 | 7/25/12 | SES | F&BI | 55 | -15.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | **0.18** | | 0.05 | U | 0.05 | U |
| | B103-62.5 | 7/26/12 | SES | F&BI | 62.5 | -22.70 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-75 | 7/26/12 | SES | F&BI | 75 | -35.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-83 | 7/26/12 | SES | F&BI | 83 | -43.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | **0.12** | | 0.05 | U | 0.05 | U |
| | B103-95 | 7/26/12 | SES | F&BI | 95 | -55.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-105 | 7/27/12 | SES | F&BI | 105 | -65.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B103-113 | 7/27/12 | SES | F&BI | 113 | -73.20 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW104 (B104) | B104-10 | 7/30/12 | SES | F&BI | 10 | 33.10 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-20 | 7/30/12 | SES | F&BI | 20 | 23.10 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-30 | 7/30/12 | SES | F&BI | 30 | 13.10 | – | – | – | – | – | – | – | **1.8** | | **0.086** | | **0.14** | | 0.05 | U | 0.05 | U |
| | B104-35 | 7/30/12 | SES | F&BI | 35 | 8.10 | – | – | – | – | – | – | – | **7.1** | | **0.23** | | **0.099** | | 0.05 | U | 0.05 | U |
| | B104-50 | 7/30/12 | SES | F&BI | 50 | -7.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-60 | 7/31/12 | SES | F&BI | 60 | -17.00 | – | – | – | – | – | – | – | **2.1** | | **0.21** | | **0.12** | | 0.05 | U | 0.05 | U |
| | B104-69 | 7/31/12 | SES | F&BI | 69 | -26.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-80 | 7/31/12 | SES | F&BI | 80 | -37.00 | – | – | – | – | – | – | – | **0.12** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-90 | 8/1/12 | SES | F&BI | 90 | -47.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-100 | 8/1/12 | SES | F&BI | 100 | -57.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-110 | 8/1/12 | SES | F&BI | 110 | -67.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-120 | 8/1/12 | SES | F&BI | 120 | -77.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B104-130 | 8/1/12 | SES | F&BI | 130 | -87.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW105 (B105) | B105-10 | 8/6/12 | SES | F&BI | 10 | 35.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-20 | 8/6/12 | SES | F&BI | 20 | 25.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-30 | 8/6/12 | SES | F&BI | 30 | 15.00 | – | – | – | – | – | – | – | **1.3** | | **0.16** | | **0.086** | | 0.05 | U | 0.05 | U |
| | B105-40 | 8/8/12 | SES | F&BI | 40 | 5.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | **0.22** | | 0.05 | U | 0.05 | U |
| | B105-50 | 8/8/12 | SES | F&BI | 50 | -5.00 | – | – | – | – | – | – | – | **0.18** | | **0.040** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-60 | 8/9/12 | SES | F&BI | 60 | -15.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-70 | 8/9/12 | SES | F&BI | 70 | -25.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-80 | 8/9/12 | SES | F&BI | 80 | -35.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-90 | 8/10/12 | SES | F&BI | 90 | -45.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-100 | 8/10/12 | SES | F&BI | 100 | -55.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-110 | 8/10/12 | SES | F&BI | 110 | -65.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-120 | 8/10/12 | SES | F&BI | 120 | -75.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-130 | 8/10/12 | SES | F&BI | 130 | -85.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B105-138 | 8/10/12 | SES | F&BI | 138 | -93.00 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW106 (B106) | B106-10 | 8/14/12 | SES | F&BI | 10 | 42.40 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-20 | 8/14/12 | SES | F&BI | 20 | 32.40 | – | – | – | – | – | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-30 | 8/14/12 | SES | F&BI | 30 | 22.40 | – | – | – | – | – | – | – | **0.038** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | Total Xylenes | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | 0.831 | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW106 (B106) (continued) | B106-40 | 8/14/12 | SES | F&BI | 40 | 12.40 | – | | – | – | – | | – | | – | – | **3.1** | | **0.15** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-50 | 8/14/12 | SES | F&BI | 50 | 2.40 | – | | – | – | – | | – | | – | – | **0.73** | | **0.17** | | **0.11** | | 0.05 | U | 0.05 | U |
| | B106-60 | 8/14/12 | SES | F&BI | 60 | -7.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-70 | 8/15/12 | SES | F&BI | 70 | -17.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-80 | 8/15/12 | SES | F&BI | 80 | -27.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-90 | 8/15/12 | SES | F&BI | 90 | -37.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-100 | 8/15/12 | SES | F&BI | 100 | -47.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-110 | 8/15/12 | SES | F&BI | 110 | -57.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-120 | 8/15/12 | SES | F&BI | 120 | -67.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-130 | 8/15/12 | SES | F&BI | 130 | -77.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B106-140 | 8/15/12 | SES | F&BI | 140 | -87.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW107 (B107) | B107-05 | 3/12/12 | SES | F&BI | 5 | 39.20 | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B107-15 | 3/12/12 | SES | F&BI | 15 | 29.20 | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B107-25 | 3/12/12 | SES | F&BI | 25 | 19.20 | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | **0.60** | | **0.063** | | **0.060** | | 0.05 | U | 0.05 | U |
| | B107-35 | 3/12/12 | SES | F&BI | 35 | 9.20 | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | **19** | | **0.59** | | **0.37** | | 0.05 | U | 0.05 | U |
| | B107-45 | 3/12/12 | SES | F&BI | 45 | -0.80 | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | **0.028** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW108 (B108) | B108-15 | 12/14/12 | SES | F&BI | 15 | 18.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B108-25 | 12/14/12 | SES | F&BI | 25 | 8.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B108-35 | 12/14/12 | SES | F&BI | 35 | -1.90 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B108-45 | 12/14/12 | SES | F&BI | 45 | -11.90 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B108-50 | 12/14/12 | SES | F&BI | 50 | -16.90 | – | | – | – | – | | – | | – | – | **0.037** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW109 (B109) | B109-05 | 4/12/12 | SES | F&BI | 5 | 30.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B109-15 | 4/12/12 | SES | F&BI | 15 | 20.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B109-25 | 4/12/12 | SES | F&BI | 25 | 10.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B109-35 | 4/12/12 | SES | F&BI | 35 | 0.70 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B109-45 | 4/12/12 | SES | F&BI | 45 | -9.30 | – | | – | – | – | | – | | – | – | **1.6** | | **0.94** | | **0.15** | | 0.05 | U | 0.05 | U |
| MW110 (B110) | B110-15 | 4/12/12 | SES | F&BI | 15 | 25.00 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B110-25 | 4/12/12 | SES | F&BI | 25 | 15.00 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B110-35 | 4/12/12 | SES | F&BI | 35 | 5.00 | – | | – | – | – | | – | | – | – | **3.4** | | **0.21** | | **0.31** | | 0.05 | U | 0.05 | U |
| | B110-45 | 4/12/12 | SES | F&BI | 45 | -5.00 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW111 (B111) | B111-10 | 5/12/12 | SES | F&BI | 10 | 26.80 | – | | – | – | – | | – | | – | – | 0.05 | U | 0.06 | U | 0.1 | U | 0.1 | U | 0.1 | U |
| | B111-20 | 5/12/12 | SES | F&BI | 20 | 16.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B111-30 | 5/12/12 | SES | F&BI | 30 | 6.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B111-38 | 5/12/12 | SES | F&BI | 38 | -1.20 | – | | – | – | – | | – | | – | – | **0.078** | | **0.40** | | **0.28** | | 0.05 | U | 0.05 | U |
| | B111-50 | 5/12/12 | SES | F&BI | 50 | -13.20 | – | | – | – | – | | – | | – | – | **1.4** | | **0.56** | | **0.11** | | 0.05 | U | 0.05 | U |
| | B111-60 | 6/12/12 | SES | F&BI | 60 | -23.20 | – | | – | – | – | | – | | – | – | **0.085** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B111-70 | 6/12/12 | SES | F&BI | 70 | -33.20 | – | | – | – | – | | – | | – | – | **0.033** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B111-80 | 6/12/12 | SES | F&BI | 80 | -43.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW112 (B112) | B112-10 | 11/12/12 | SES | F&BI | 10 | 47.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-20 | 11/12/12 | SES | F&BI | 20 | 37.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-30 | 11/12/12 | SES | F&BI | 30 | 27.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-40 | 11/12/12 | SES | F&BI | 40 | 17.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-50 | 11/12/12 | SES | F&BI | 50 | 7.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-60 | 11/12/12 | SES | F&BI | 60 | -2.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-75 | 11/12/12 | SES | F&BI | 75 | -17.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B112-85 | 12/12/12 | SES | F&BI | 85 | -27.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW113 (B113) | B113-10 | 12/18/12 | SES | F&BI | 10 | 23.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B113-20 | 12/18/12 | SES | F&BI | 20 | 13.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B113-30 | 12/18/12 | SES | F&BI | 30 | 3.20 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B113-40 | 12/18/12 | SES | F&BI | 40 | -6.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B113-50 | 12/18/12 | SES | F&BI | 50 | -16.80 | – | | – | – | – | | – | | – | – | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | |
| MW114 (B114) | B114-15 | 10/12/12 | SES | F&BI | 15 | 31.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B114-25 | 10/12/12 | SES | F&BI | 25 | 21.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B114-35 | 10/12/12 | SES | F&BI | 35 | 11.40 | – | | – | | – | | – | | – | | – | | – | | **8.8** | |
| | B114-40 | 10/12/12 | SES | F&BI | 40 | 6.40 | – | | – | | – | | – | | – | | – | | – | | **0.59** | |
| | B114-45 | 10/12/12 | SES | F&BI | 45 | 1.40 | – | | – | | – | | – | | – | | – | | – | | **0.25** | |
| MW115 (B115) | B115-10 | 12/13/12 | SES | F&BI | 10 | 24.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B115-15 | 12/13/12 | SES | F&BI | 15 | 19.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B115-25 | 12/13/12 | SES | F&BI | 25 | 9.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B115-35 | 12/13/12 | SES | F&BI | 35 | -0.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B115-45 | 12/13/12 | SES | F&BI | 45 | -10.50 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| MW116 (B116) | B116-15 | 7/12/12 | SES | F&BI | 15 | 17.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B116-25 | 7/12/12 | SES | F&BI | 25 | 7.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B116-35 | 7/12/12 | SES | F&BI | 35 | -3.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B116-45 | 7/12/12 | SES | F&BI | 45 | -13.00 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| MW117 (B117) | B117-10 | 2/4/13 | SES | F&BI | 10 | 47.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B117-20 | 2/4/13 | SES | F&BI | 20 | 37.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B117-30 | 2/4/13 | SES | F&BI | 30 | 27.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B117-40 | 2/4/13 | SES | F&BI | 40 | 17.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B117-50 | 2/4/13 | SES | F&BI | 50 | 7.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| MW118 (B118) | B118-10 | 3/21/13 | SES | F&BI | 10 | 43.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B118-20 | 3/21/13 | SES | F&BI | 20 | 33.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B118-30 | 3/21/13 | SES | F&BI | 30 | 23.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B118-40 | 3/21/13 | SES | F&BI | 40 | 13.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B118-50 | 3/21/13 | SES | F&BI | 50 | 3.40 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| MW119 (B119) | B119-10 | 3/21/13 | SES | F&BI | 10 | 27.70 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B119-20 | 3/21/13 | SES | F&BI | 20 | 17.70 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B119-30 | 3/21/13 | SES | F&BI | 30 | 7.70 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| | B119-40 | 3/21/13 | SES | F&BI | 40 | -2.30 | – | | – | | – | | – | | – | | – | | – | | 0.025 | U |
| MW120 (B120) | B120-20 | 12/16/13 | SES | F&BI | 20 | – | 2 | U | – | | – | | 0.3 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B120-30 | 12/16/13 | SES | F&BI | 30 | – | 2 | U | – | | – | | 0.3 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B120-45 | 12/16/13 | SES | F&BI | 45 | – | 2 | U | – | | – | | 0.3 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| MW121 (B121) | B121-15 | 12/16/13 | SES | F&BI | 15 | – | 2 | U | – | | – | | 0.3 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B121-25 | 12/16/13 | SES | F&BI | 25 | – | 2 | U | – | | – | | 0.3 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| MW122 (B122) | B122-15 | 12/17/13 | SES | F&BI | 15 | – | – | | – | | – | | **0.053** | | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-25 | 12/17/13 | SES | F&BI | 25 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-40 | 12/17/13 | SES | F&BI | 40 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-45 | 12/17/13 | SES | F&BI | 45 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-50 | 12/17/13 | SES | F&BI | 50 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-60 | 12/17/13 | SES | F&BI | 60 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-70 | 12/17/13 | SES | F&BI | 70 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-80 | 12/17/13 | SES | F&BI | 80 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B122-100 | 12/17/13 | SES | F&BI | 100 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| MW123 (B123) | B123-20 | 12/18/13 | SES | F&BI | 20 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| MW124 (B124) | B124-10 | 12/19/13 | SES | F&BI | 10 | – | 2 | U | – | | – | | – | | – | | – | | – | | – | |
| | B124-20 | 12/19/13 | SES | F&BI | 20 | – | 2 | U | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-30 | 12/19/13 | SES | F&BI | 30 | – | 2 | U | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-40 | 12/19/13 | SES | F&BI | 40 | – | 2 | U | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-50 | 12/19/13 | SES | F&BI | 50 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-60 | 12/19/13 | SES | F&BI | 60 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-70 | 12/19/13 | SES | F&BI | 70 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |
| | B124-80 | 12/19/13 | SES | F&BI | 80 | – | – | | – | | – | | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U |

| Sample Location | TCE | | cDCE | | tDCE | | VC | |
|---|---|---|---|---|---|---|---|---|
| | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW114 (B114) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | **0.45** | | **0.11** | | 0.05 | U | 0.05 | U |
| | **0.071** | | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW115 (B115) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW116 (B116) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW117 (B117) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW118 (B118) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW119 (B119) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW120 (B120) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW121 (B121) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW122 (B122) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | **0.22** | | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW123 (B123) | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW124 (B124) | – | | – | | – | | – | |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | 2,000 | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| B-214 (continued) | B124-90 | 12/19/13 | SES | F&BI | 90 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B124-100 | 12/19/13 | SES | F&BI | 100 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B124-110 | 12/19/13 | SES | F&BI | 110 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B124-120 | 12/19/13 | SES | F&BI | 120 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW125 (B125) | B125-15 | 12/20/13 | SES | F&BI | 15 | – | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B125-20 | 12/20/13 | SES | F&BI | 20 | – | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B125-25 | 12/20/13 | SES | F&BI | 25 | – | 2 | U | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B125-30 | 12/20/13 | SES | F&BI | 30 | – | – | | – | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| MW126 (B126) | B126-20 | 12/30/13 | SES | F&BI | 20 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-35 | 12/30/13 | SES | F&BI | 35 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-45 | 12/30/13 | SES | F&BI | 45 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-55 | 12/30/13 | SES | F&BI | 55 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-60 | 12/31/13 | SES | F&BI | 60 | – | – | | – | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | B126-65 | 1/1/14 | SES | F&BI | 65 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-75 | 1/2/14 | SES | F&BI | 75 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-80 | 1/3/14 | SES | F&BI | 80 | – | – | | – | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | B126-85 | 1/4/14 | SES | F&BI | 85 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B126-95 | 1/5/14 | SES | F&BI | 95 | – | – | | – | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| MW127 (B127) | B127-15 | 12/31/13 | SES | F&BI | 15 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B127-25 | 12/31/13 | SES | F&BI | 25 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B127-40 | 12/31/13 | SES | F&BI | 40 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B127-45 | 12/31/13 | SES | F&BI | 45 | – | – | | – | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | B127-50 | 12/31/13 | SES | F&BI | 50 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW128 (B128) | B128-25 | 1/9/14 | SES | F&BI | 25 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B128-45 | 1/9/14 | SES | F&BI | 45 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B128-65 | 1/9/14 | SES | F&BI | 65 | – | – | | – | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| MW-138 | MW-138-15 | 9/12/17 | PES | ESC | 15 | 42.43 | – | | – | – | 0.000321 | U | 0.000516 | U | 0.000353 | U | 0.000830 | U | 0.000328 | U | 0.000332 | U | 0.000279 | U | 0.000314 | U | 0.000346 | U |
| | MW-138-25 | 9/12/17 | PES | ESC | 25 | 32.43 | – | | – | – | 0.000311 | U | 0.000500 | U | 0.000342 | U | 0.000804 | U | 0.000318 | U | 0.000321 | U | 0.000271 | U | 0.000304 | U | 0.000335 | U |
| | MW-138-35 | 9/12/17 | PES | ESC | 35 | 22.43 | – | | – | – | 0.000288 | U | 0.000464 | U | 0.000317 | U | 0.000746 | U | 0.000295 | U | 0.000298 | U | 0.000251 | U | 0.000282 | U | 0.000311 | U |
| | MW-138-45 | 9/12/17 | PES | ESC | 45 | 12.43 | – | | – | – | 0.000285 | U | 0.000459 | U | 0.000314 | U | 0.000738 | U | 0.000292 | U | 0.000295 | U | 0.000248 | U | 0.000279 | U | 0.000308 | U |
| | MW-138-56 | 9/12/17 | PES | ESC | 56 | 1.43 | – | | – | – | 0.000304 | U | 0.000488 | U | 0.000334 | U | 0.000785 | U | 0.000310 | U | 0.000314 | U | 0.000264 | U | 0.000297 | U | 0.000327 | U |
| | MW-138-65 | 9/13/17 | PES | ESC | 65 | -7.57 | – | | – | – | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000755 | U | 0.000299 | U | 0.000302 | U | 0.000254 | U | 0.000286 | R | 0.000315 | R |
| | B-910-90 | 9/13/17 | PES | ESC | 65 (dup) | -7.57 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | 0.000320 | U | 0.000323 | U | 0.000272 | U | 0.000306 | R | 0.000337 | R |
| | MW-138-75 | 9/13/17 | PES | ESC | 75 | -17.57 | – | | – | – | 0.000297 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | 0.000304 | U | 0.000307 | U | 0.000259 | U | 0.000291 | U | 0.000320 | U |
| | MW-138-85 | 9/13/17 | PES | ESC | 85 | -27.57 | – | | – | – | 0.000325 | U | 0.000522 | U | 0.000357 | U | 0.000839 | U | 0.000332 | U | 0.000335 | U | 0.000283 | U | 0.000317 | U | 0.000350 | U |
| | MW-138-95 | 9/13/17 | PES | ESC | 95 | -37.57 | – | | – | – | 0.000295 | U | 0.000473 | U | 0.000324 | U | 0.000761 | U | 0.000301 | U | 0.000304 | U | 0.000256 | U | 0.000288 | U | 0.000317 | U |
| | MW-138-105 | 9/13/17 | PES | ESC | 105 | -47.57 | – | | – | – | 0.000336 | U | 0.000540 | U | 0.000369 | U | 0.000868 | U | 0.000343 | U | 0.000347 | U | 0.000292 | U | 0.000328 | U | 0.000362 | U |
| | MW-138-115 | 9/14/17 | PES | ESC | 115 | -57.57 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000809 | U | 0.000320 | U | 0.000323 | U | 0.000272 | U | 0.000306 | U | 0.000337 | U |
| MW-140 | MW-140-15 | 8/30/17 | PES | ESC | 15 | 35.52 | – | | – | – | 0.000308 | U | 0.000495 | U | 0.000339 | U | 0.000796 | U | 0.000315 | U | 0.000318 | U | 0.000268 | U | 0.000301 | U | 0.000332 | U |
| | MW-140-25 | 8/30/17 | PES | ESC | 25 | 25.52 | – | | – | – | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.147** | | **0.0107** | | **0.00199** | | 0.000286 | U | 0.000316 | U |
| | MW-140-35 | 8/30/17 | PES | ESC | 35 | 15.52 | – | | – | – | 0.00786 | U | 0.0126 | U | 0.00865 | U | 0.0203 | U | **15.1** | | **0.629** | | **0.387** | | 0.00769 | U | **0.0107** | **J** |
| | MW-140-45 | 8/30/17 | PES | ESC | 45 | 5.52 | – | | – | – | 0.000288 | U | 0.000463 | U | 0.000317 | U | 0.000745 | U | **4.27** | | **0.0793** | | **0.0431** | | 0.000282 | U | **0.00160** | |
| | MW-140-55 | 8/30/17 | PES | ESC | 55 | -4.48 | – | | – | – | **0.000379** | **J** | **0.000498** | **J** | 0.000326 | U | 0.000766 | U | **1.56** | | **0.0496** | | **0.130** | | **0.000500** | **J** | **0.0990** | |
| | MW-140-65 | 8/30/17 | PES | ESC | 65 | -14.48 | – | | – | – | 0.000289 | U | 0.000465 | U | 0.000318 | U | 0.000747 | U | 0.00746 | U | 0.000299 | U | 0.000252 | U | 0.000283 | U | 0.000312 | U |
| | MW-140-75 | 8/30/17 | PES | ESC | 75 | -24.48 | – | | – | – | 0.00728 | U | 0.0116 | U | 0.00800 | U | 0.0188 | U | 0.00744 | U | 0.00753 | U | 0.00634 | U | 0.00712 | U | 0.00785 | U |
| | MW-140-90 | 8/30/17 | PES | ESC | 90 | -39.48 | – | | – | – | 0.000318 | U | 0.000511 | U | 0.000349 | U | 0.000821 | U | 0.000325 | U | 0.000328 | U | 0.000276 | U | 0.000311 | U | 0.000342 | U |
| | MW-140-110 | 8/31/17 | PES | ESC | 110 | -59.48 | – | | – | – | 0.000313 | U | 0.000503 | U | 0.000344 | U | 0.000808 | U | 0.000320 | U | 0.000323 | U | 0.000272 | U | 0.000306 | U | 0.000337 | U |
| | MW-140-130 | 8/31/17 | PES | ESC | 130 | -79.48 | – | | – | – | 0.000305 | U | 0.000491 | U | 0.000336 | U | 0.000789 | U | 0.000312 | U | 0.000315 | U | 0.000266 | U | 0.000298 | U | 0.000329 | U |
| | MW-140-140 | 8/31/17 | PES | ESC | 140 | -89.48 | – | | – | – | 0.00762 | U | 0.0122 | U | 0.00838 | U | 0.0197 | U | 0.00779 | U | 0.00788 | U | 0.00664 | U | 0.00745 | U | 0.00822 | U |
| MW-142 | MW-142-5 | 4/12/18 | PES | ESC | 5 | 37.44 | – | | – | – | **0.000392** | **J** | 0.000522 | U | 0.000357 | U | 0.000840 | U | 0.000332 | U | 0.000336 | U | 0.000283 | U | 0.000318 | U | 0.000350 | U |
| MW-143 | MW-143-10 | 4/11/18 | PES | ESC | 10 | 32.43 | – | | – | – | **0.00459** | | 0.000602 | U | 0.000412 | U | 0.000968 | U | **0.000499** | **J** | 0.000387 | U | 0.000326 | U | 0.000366 | U | 0.000403 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | |
| MW-143 (continued) | MW-143-20 | 4/11/18 | PES | ESC | 20 | 22.43 | – | | – | | – | | 0.000314 | U | 0.000504 | U | 0.000345 | U | 0.000811 | U | 0.000321 | U | 0.000324 | U |
| | MW-143-30 | 4/11/18 | PES | ESC | 30 | 12.43 | – | | – | | – | | 0.000307 | U | 0.000494 | U | 0.000338 | U | 0.000795 | U | 0.000314 | U | 0.000318 | U |
| | MW-143-40 | 4/11/18 | PES | ESC | 40 | 2.43 | – | | – | | – | | 0.000322 | U | 0.000518 | U | 0.000354 | U | 0.000833 | U | 0.000329 | U | 0.000333 | U |
| | MW-143-50 | 4/11/18 | PES | ESC | 50 | -7.57 | – | | – | | – | | 0.000309 | U | 0.000497 | U | 0.000340 | U | 0.000799 | U | **0.00589** | | **0.00729** | |
| | MW-143-60 | 4/11/18 | PES | ESC | 60 | -17.57 | – | | – | | – | | 0.000300 | U | 0.000482 | U | 0.000330 | U | 0.000776 | U | **0.00270** | | **0.000443** | **J** |
| | MW-143-70 | 4/11/18 | PES | ESC | 70 | -27.57 | – | | – | | – | | 0.000297 | U | 0.000477 | U | 0.000327 | U | 0.000768 | U | **0.00164** | | **0.00106** | **J** |
| | MW-143-80 | 4/11/18 | PES | ESC | 80 | -37.57 | – | | – | | – | | 0.000307 | U | 0.000493 | U | 0.000337 | U | 0.000793 | U | 0.000314 | U | 0.000317 | U |
| | MW-902-20 | 4/11/18 | PES | ESC | 80 (dup) | -37.57 | – | | – | | – | | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | 0.000309 | U | 0.000312 | U |
| MW-145 | MW-145-10 | 4/17/18 | PES | ESC | 10 | 33.86 | – | | – | | – | | 0.000339 | U | 0.000545 | U | 0.000373 | U | 0.000877 | U | 0.000347 | U | 0.000351 | U |
| | MW-145-20 | 4/17/18 | PES | ESC | 20 | 23.86 | – | | – | | – | | 0.000315 | U | 0.000507 | U | 0.000347 | U | 0.000815 | U | **0.000505** | **J** | **0.000332** | **J** |
| | MW-145-30 | 4/17/18 | PES | ESC | 30 | 13.86 | – | | – | | – | | 0.000320 | U | 0.000515 | U | 0.000352 | U | 0.000828 | U | **0.790** | | **0.0668** | |
| | MW-145-40 | 4/17/18 | PES | ESC | 40 | 3.86 | – | | – | | – | | 0.000301 | U | 0.000484 | U | 0.000331 | U | 0.000778 | U | **0.00641** | | **0.00474** | |
| | MW-145-50 | 4/17/18 | PES | ESC | 50 | -6.14 | – | | – | | – | | 0.000296 | U | 0.000476 | U | 0.000325 | U | **0.00329** | | **0.00390** | | **0.00180** | |
| | MW-145-60 | 4/17/18 | PES | ESC | 60 | -16.14 | – | | – | | – | | 0.000298 | U | 0.000478 | U | 0.000327 | U | 0.000769 | U | 0.000304 | U | 0.000308 | U |
| | MW-145-70 | 4/17/18 | PES | ESC | 70 | -26.14 | – | | – | | – | | 0.000327 | U | 0.000526 | U | 0.000360 | U | 0.000847 | U | 0.000335 | U | 0.000338 | U |
| | MW-145-80 | 4/17/18 | PES | ESC | 80 | -36.14 | – | | – | | – | | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000802 | U | **0.000464** | **J** | 0.000320 | U |
| | MW-903-40 | 4/17/18 | PES | ESC | 80 (dup) | -36.14 | – | | – | | – | | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.000450** | **J** | 0.000313 | U |
| MW-147 | MW-147-10 | 4/2/18 | PES | ESC | 10 | 42.36 | – | | – | | – | | **0.000566** | **J** | 0.000471 | U | 0.000323 | U | 0.000758 | U | **0.000697** | **J** | 0.000303 | U |
| | MW-147-20 | 4/2/18 | PES | ESC | 20 | 32.36 | – | | – | | – | | 0.000292 | U | 0.000469 | U | 0.000321 | U | 0.000754 | U | **0.000759** | **J** | 0.000302 | U |
| | MW-147-30 | 4/2/18 | PES | ESC | 30 | 22.36 | – | | – | | – | | 0.000301 | U | 0.000485 | U | 0.000332 | U | 0.000779 | U | **0.0238** | | **0.00330** | |
| | MW-147-40 | 4/2/18 | PES | ESC | 40 | 12.36 | – | | – | | – | | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | **0.0146** | | **0.00118** | |
| | MW-147-50 | 4/2/18 | PES | ESC | 50 | 2.36 | – | | – | | – | | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000773 | U | **0.00175** | | **0.00105** | **J** |
| | MW-147-60 | 4/2/18 | PES | ESC | 60 | -7.64 | – | | – | | – | | 0.000290 | U | 0.000467 | U | 0.000319 | U | 0.000751 | U | **0.000607** | **J** | 0.000300 | U |
| | MW-901-10 | 4/2/18 | PES | ESC | 60 (dup) | -7.64 | – | | – | | – | | 0.000291 | U | 0.000467 | U | 0.000320 | U | 0.000752 | U | **0.000377** | **J** | 0.000300 | U |
| | MW-147-70 | 4/2/18 | PES | ESC | 70 | -17.64 | – | | – | | – | | 0.000302 | U | 0.000486 | U | 0.000332 | U | 0.000781 | U | 0.000309 | U | 0.000312 | U |
| | MW-147-80 | 4/2/18 | PES | ESC | 80 | -27.64 | – | | – | | – | | 0.000312 | U | 0.000502 | U | 0.000334 | U | 0.000808 | U | 0.000319 | U | 0.000323 | U |
| MW-148 | MW-148-11 | 4/9/18 | PES | ESC | 11 | 33.27 | – | | – | | – | | **0.000728** | **J** | 0.000501 | U | 0.000343 | U | 0.000805 | U | 0.000318 | U | 0.000322 | U |
| | MW-148-20 | 4/9/18 | PES | ESC | 20 | 24.27 | – | | – | | – | | 0.000293 | U | 0.000471 | U | 0.000322 | U | 0.000757 | U | **0.00188** | | 0.000303 | U |
| | MW-148-30 | 4/9/18 | PES | ESC | 30 | 14.27 | – | | – | | – | | 0.000303 | U | 0.000487 | U | 0.000334 | U | 0.000784 | U | 0.000310 | U | 0.000313 | U |
| | MW-148-40 | 4/9/18 | PES | ESC | 40 | 4.27 | – | | – | | – | | 0.000293 | U | 0.000471 | U | 0.000323 | U | 0.000758 | U | **0.000801** | **J** | **0.000551** | **J** |
| | MW-148-50 | 4/9/18 | PES | ESC | 50 | -5.73 | – | | – | | – | | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | 0.000304 | U | 0.000308 | U |
| | MW-148-60 | 4/9/18 | PES | ESC | 60 | -15.73 | – | | – | | – | | 0.000341 | U | 0.000548 | U | 0.000375 | U | 0.000881 | U | 0.000348 | U | 0.000352 | U |
| | MW-148-70 | 4/9/18 | PES | ESC | 70 | -25.73 | – | | – | | – | | 0.000340 | U | 0.000547 | U | 0.000374 | U | 0.000880 | U | **0.000618** | **J** | 0.000352 | U |
| | MW-148-80 | 4/9/18 | PES | ESC | 80 | -35.73 | – | | – | | – | | 0.000317 | U | 0.000510 | U | 0.000349 | U | 0.000820 | U | **0.000585** | **J** | 0.000328 | U |
| MW-153 | MW-153-10 | 3/27/18 | PES | ESC | 10 | 44.75 | – | | – | | – | | 0.000306 | U | 0.000492 | U | 0.000337 | U | 0.000792 | U | 0.000313 | U | 0.000316 | U |
| | MW-153-20 | 3/27/18 | PES | ESC | 20 | 34.75 | – | | – | | – | | 0.000296 | U | 0.000475 | U | 0.000325 | U | 0.000764 | U | **0.000561** | **J** | 0.000305 | U |
| | MW-153-30 | 3/27/18 | PES | ESC | 30 | 24.75 | – | | – | | – | | 0.000290 | U | 0.000466 | U | 0.000319 | U | 0.000749 | U | 0.000296 | U | 0.000299 | U |
| | MW-153-40 | 3/27/18 | PES | ESC | 40 | 14.75 | – | | – | | – | | 0.000306 | U | 0.000492 | U | 0.000336 | U | 0.000791 | U | 0.000313 | U | **0.000486** | **J** |
| | MW-153-50 | 3/27/18 | PES | ESC | 50 | 4.75 | – | | – | | – | | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | 0.000306 | U | 0.000309 | U |
| | MW-153-61 | 3/27/18 | PES | ESC | 61 | -6.25 | – | | – | | – | | 0.000307 | U | 0.000493 | U | 0.000338 | U | 0.000793 | U | 0.000314 | U | 0.000317 | U |
| | MW-153-70 | 3/27/18 | PES | ESC | 70 | -15.25 | – | | – | | – | | 0.000301 | U | 0.000483 | U | 0.000331 | U | 0.000777 | U | 0.000307 | U | 0.000311 | U |
| | MW-153-80 | 3/28/18 | PES | ESC | 80 | -25.25 | – | | – | | – | | 0.000298 | U | 0.000479 | U | 0.000328 | U | 0.000770 | U | 0.000305 | U | 0.000308 | U |
| | MW-153-90 | 3/28/18 | PES | ESC | 90 | -35.25 | – | | – | | – | | 0.000325 | U | 0.000523 | U | 0.000358 | U | 0.000841 | U | **0.000799** | **J** | 0.000336 | U |
| | MW-153-110 | 3/28/18 | PES | ESC | 110 | -55.25 | – | | – | | – | | 0.000318 | U | 0.000511 | U | 0.000350 | U | 0.000821 | U | **0.00254** | | 0.000328 | U |
| | MW-153-130 | 3/29/18 | PES | ESC | 130 | -75.25 | – | | – | | – | | 0.000310 | U | 0.000499 | U | 0.000341 | U | 0.000802 | U | **0.000648** | **J** | 0.000321 | U |
| MW-158 | MW-158-20 | 4/5/18 | PES | ESC | 20 | 21.51 | 0.0384 | U | – | | – | | **0.000584** | **J** | 0.000492 | U | 0.000336 | U | 0.000791 | U | 0.000313 | U | 0.000316 | U |
| | MW-158-30 | 4/5/18 | PES | ESC | 30 | 11.51 | **1.5** | **J+** | – | | – | | 0.0318 | U | **0.0512** | | 0.0350 | U | 0.0823 | U | **15.1** | | **3.57** | |
| MW-158A | MW-158A-40 | 4/5/18 | PES | ESC | 40 | 1.51 | **0.839** | | – | | – | | **0.000424** | **J** | **0.000626** | **J** | 0.000366 | U | 0.000860 | U | **1.76** | | **0.684** | |
| | MW-158A-50 | 4/5/18 | PES | ESC | 50 | -8.49 | **0.194** | | – | | – | | 0.000312 | U | 0.000502 | U | 0.000343 | U | 0.000807 | U | **0.922** | | **0.0628** | |
| | MW-158A-60 | 4/5/18 | PES | ESC | 60 | -18.49 | **0.319** | | – | | – | | 0.000311 | U | 0.000499 | U | 0.000342 | U | 0.000803 | U | **4.08** | | **0.0528** | |
| | MW-158A-70 | 4/5/18 | PES | ESC | 70 | -28.49 | **0.129** | | – | | – | | 0.000303 | U | 0.000487 | U | 0.000333 | U | 0.000783 | U | **0.00466** | | **0.0431** | |

| Sample Location | Sample ID | cDCE | | tDCE | | VC | |
|---|---|---|---|---|---|---|---|
| | | 0.050 | | 0.050 | | 0.050 | |
| MW-143 (continued) | MW-143-20 | 0.000273 | U | 0.000307 | U | 0.000338 | U |
| | MW-143-30 | **0.000547** | **J** | 0.000301 | U | **0.000928** | **J** |
| | MW-143-40 | **0.00203** | | 0.000315 | U | **0.000521** | **J** |
| | MW-143-50 | **0.207** | | **0.00117** | | **0.0227** | |
| | MW-143-60 | **0.00285** | | **0.00136** | | **0.656** | |
| | MW-143-70 | **0.0182** | | 0.000290 | U | **0.0137** | |
| | MW-143-80 | **0.00361** | | 0.000300 | U | **0.00320** | |
| | MW-902-20 | **0.00256** | | 0.000295 | U | **0.00587** | |
| MW-145 | MW-145-10 | 0.000295 | U | 0.000332 | U | 0.000366 | U |
| | MW-145-20 | **0.00765** | | 0.000308 | U | 0.000340 | U |
| | MW-145-30 | **0.100** | | **0.00118** | **J** | 0.000345 | U |
| | MW-145-40 | **0.0691** | | 0.000294 | U | **0.0160** | |
| | MW-145-50 | **0.00555** | | 0.000289 | U | **0.00329** | |
| | MW-145-60 | 0.000259 | U | 0.000291 | U | **0.00255** | |
| | MW-145-70 | **0.000290** | **J** | 0.000320 | U | **0.000544** | **J** |
| | MW-145-80 | **0.000380** | **J** | 0.000303 | U | **0.000723** | **J** |
| | MW-903-40 | **0.000384** | **J** | 0.000296 | U | **0.00180** | |
| MW-147 | MW-147-10 | 0.000255 | U | 0.000287 | U | 0.000316 | U |
| | MW-147-20 | 0.000254 | U | 0.000285 | U | 0.000314 | U |
| | MW-147-30 | **0.00239** | | 0.000295 | U | 0.000325 | U |
| | MW-147-40 | **0.00488** | | 0.000291 | U | **0.0615** | |
| | MW-147-50 | **0.00432** | | 0.000292 | U | **0.00322** | |
| | MW-147-60 | **0.000696** | **J** | 0.000284 | U | 0.000313 | U |
| | MW-901-10 | 0.000253 | U | 0.000284 | U | 0.000313 | U |
| | MW-147-70 | 0.000263 | U | 0.000295 | U | **0.000502** | **J** |
| | MW-147-80 | 0.000272 | U | 0.000305 | U | 0.000337 | U |
| MW-148 | MW-148-11 | 0.000271 | U | 0.000305 | U | 0.000336 | U |
| | MW-148-20 | 0.000255 | U | 0.000286 | U | 0.000316 | U |
| | MW-148-30 | **0.00364** | | 0.000296 | U | **0.0144** | |
| | MW-148-40 | **0.00113** | | 0.000287 | U | 0.000316 | U |
| | MW-148-50 | 0.000259 | U | 0.000291 | U | 0.000321 | U |
| | MW-148-60 | 0.000297 | U | 0.000333 | U | 0.000367 | U |
| | MW-148-70 | **0.000380** | **J** | 0.000333 | U | 0.000367 | U |
| | MW-148-80 | **0.000314** | **J** | 0.000310 | U | 0.000342 | U |
| MW-153 | MW-153-10 | 0.000266 | U | 0.000299 | U | 0.000330 | U |
| | MW-153-20 | 0.000257 | U | 0.000289 | U | 0.000318 | U |
| | MW-153-30 | 0.000252 | U | 0.000283 | U | 0.000312 | U |
| | MW-153-40 | **0.00421** | | 0.000299 | U | 0.000330 | U |
| | MW-153-50 | 0.000261 | U | 0.000293 | U | **0.00767** | |
| | MW-153-61 | 0.000267 | U | 0.000300 | U | **0.000344** | **J** |
| | MW-153-70 | 0.000262 | U | 0.000294 | U | **0.000902** | **J** |
| | MW-153-80 | **0.000353** | **J** | 0.000291 | U | **0.00148** | |
| | MW-153-90 | **0.000596** | **J** | 0.000318 | U | **0.00176** | |
| | MW-153-110 | **0.000773** | **J** | 0.000311 | U | **0.00311** | |
| | MW-153-130 | 0.000270 | U | 0.000303 | U | 0.000334 | U |
| MW-158 | MW-158-20 | 0.000266 | U | 0.000299 | U | 0.000330 | U |
| | MW-158-30 | **3.00** | | 0.0311 | U | **0.382** | |
| MW-158A | MW-158A-40 | **0.168** | | **0.000547** | **J** | **0.00972** | |
| | MW-158A-50 | **0.0631** | | **0.000423** | **J** | **0.000709** | **J** |
| | MW-158A-60 | **0.111** | | **0.000810** | **J** | **0.000703** | **J** |
| | MW-158A-70 | **0.946** | | **0.000460** | **J** | **0.0164** | |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| MW-158A (continued) | MW-158A-80 | 4/6/18 | PES | ESC | 80 | -38.49 | 0.0376 | U | – | | – | | 0.000299 | U | 0.000481 | U | 0.000329 | U | 0.000774 | U | **0.00242** | | **0.000599** | **J** | **0.00335** | | 0.000293 | U | **0.000339** | **J** |
| | MW-158A-90 | 4/6/18 | PES | ESC | 90 | -48.49 | 0.0389 | U | – | | – | | 0.000310 | U | 0.000498 | U | 0.000341 | U | 0.000801 | U | **0.00622** | | **0.00209** | | **0.00789** | | 0.000303 | U | **0.00160** | |
| | MW-158A-100 | 4/6/18 | PES | ESC | 100 | -58.49 | 0.0398 | U | – | | – | | 0.000317 | U | 0.000510 | U | 0.000349 | U | 0.000820 | U | **0.00683** | | **0.00229** | | **0.00789** | | 0.000310 | U | **0.000880** | **J** |
| MW-159 | MW-159-20 | 4/16/18 | PES | ESC | 20 | 23.25 | – | | – | | – | | 0.000326 | U | 0.000525 | U | 0.000359 | U | 0.000844 | U | 0.000334 | U | 0.000337 | U | 0.000284 | U | 0.000319 | U | 0.000352 | U |
| | MW-159-30 | 4/16/18 | PES | ESC | 30 | 13.25 | – | | – | | – | | 0.000329 | U | 0.000529 | U | 0.000362 | U | 0.000851 | U | **0.0196** | | **0.0234** | | **0.0506** | | **0.000365** | **J** | 0.000355 | U |
| MW-160 | MW-160-11 | 5/8/18 | PES | ESC | 11 | | – | | – | | – | | 0.000649 | U | **0.00635** | **J** | 0.000860 | U | 0.00776 | U | 0.00114 | U | 0.000649 | U | 0.00112 | U | 0.00232 | U | 0.00110 | U |
| | MW-160-21 | 5/8/18 | PES | ESC | 21 | | – | | – | | – | | **0.000662** | **J** | **0.00421** | **J** | 0.000621 | U | 0.00560 | U | **0.000966** | **J** | 0.000469 | U | **0.00357** | | 0.00168 | U | 0.000801 | U |
| | MW-160-31 | 5/8/18 | PES | ESC | 31 | | – | | – | | – | | **0.000503** | **J** | **0.00285** | **J** | 0.000643 | U | 0.00580 | U | 0.000849 | U | 0.000485 | U | 0.000837 | U | 0.00173 | U | 0.000828 | U |
| | MW-160-40 | 5/8/18 | PES | ESC | 40 | | – | | – | | – | | 0.000454 | U | **0.00196** | **J** | 0.000602 | U | 0.00543 | U | **0.281** | | **0.100** | | **0.151** | | **0.00373** | **J** | 0.000775 | U |
| | MW-160-50 | 5/8/18 | PES | ESC | 50 | | – | | – | | – | | 0.000457 | U | **0.00144** | **J** | 0.000606 | U | 0.00546 | U | **0.00276** | **J** | **0.000714** | **J** | **0.00694** | | 0.00163 | U | 0.000780 | U |
| | MW-160-55 | 5/8/18 | PES | ESC | 55 | | – | | – | | – | | 0.000474 | U | **0.00185** | **J** | 0.000629 | U | 0.00567 | U | **6.27** | | **1.11** | | **1.50** | | **0.0221** | | **0.0107** | |
| | MW-160-60 | 5/8/18 | PES | ESC | 60 | | – | | – | | – | | **0.00134** | | **0.00595** | | **0.000699** | **J** | 0.00521 | U | **0.111** | | **0.0907** | | **0.352** | | **0.00162** | **J** | 0.000744 | U |
| | MW-160-70 | 5/8/18 | PES | ESC | 70 | | – | | – | | – | | 0.000467 | U | **0.00221** | **J** | 0.000619 | U | 0.00558 | U | **0.00208** | **J** | **0.00150** | | **0.00460** | | 0.00167 | U | 0.000798 | U |
| | MW-160-90 | 5/8/18 | PES | ESC | 90 | | – | | – | | – | | 0.000471 | U | **0.00240** | **J** | 0.000624 | U | 0.00563 | U | 0.000824 | U | **0.00151** | | **0.00432** | | 0.00168 | U | 0.000804 | U |
| | MW-160-100 | 5/8/18 | PES | ESC | 100 | | – | | – | | – | | 0.000481 | U | 0.00150 | U | 0.000638 | U | 0.00575 | U | 0.000842 | U | **0.00153** | | **0.00506** | | 0.00172 | U | 0.000822 | U |
| | MW-160-110 | 5/8/18 | PES | ESC | 110 | | – | | – | | – | | 0.000454 | U | **0.00144** | **J** | 0.000601 | U | 0.00542 | U | **0.0113** | | **0.00478** | | **0.0128** | | 0.00162 | U | 0.000774 | U |
| | MW-160-125 | 5/10/18 | PES | ESC | 125 | | – | | – | | – | | 0.000458 | U | **0.00265** | **J** | 0.000607 | U | 0.00547 | U | **0.00262** | **J** | **0.000576** | **J** | **0.000832** | **J** | 0.00164 | U | 0.000782 | U |
| | MW-160-127.5 | 5/10/18 | PES | ESC | 128 | | – | | – | | – | | 0.000462 | U | 0.00144 | U | 0.000612 | U | 0.00552 | U | 0.000808 | U | 0.000462 | U | 0.000797 | U | 0.00165 | U | 0.000789 | U |
| MW-161 | MW-161-11 | 5/14/18 | PES | ESC | 11 | | – | | – | | – | | 0.00123 | U | 0.00615 | U | 0.00307 | U | 0.00799 | U | **0.00523** | | 0.00123 | U | **0.00563** | | 0.00615 | U | 0.00307 | U |
| | MW-161-21 | 5/14/18 | PES | ESC | 21 | | – | | – | | – | | 0.00104 | U | 0.00520 | U | 0.00260 | U | 0.00676 | U | 0.00260 | U | 0.00104 | U | **0.00364** | | 0.00520 | U | 0.00260 | U |
| | MW-161-31 | 5/14/18 | PES | ESC | 31 | | – | | – | | – | | 0.00114 | U | 0.00572 | U | 0.00286 | U | 0.00744 | U | **0.0159** | | **0.00196** | | **0.00387** | | 0.00572 | U | 0.00286 | U |
| | MW-161-40 | 5/14/18 | PES | ESC | 40 | | – | | – | | – | | 0.00110 | U | 0.00552 | U | 0.00276 | U | 0.00717 | U | **0.00438** | | **0.00132** | | **0.376** | | 0.00552 | U | 0.00276 | U |
| | MW-161-50 | 5/14/18 | PES | ESC | 50 | | – | | – | | – | | 0.00112 | U | 0.00558 | U | 0.00279 | U | 0.00725 | U | **0.0173** | | **0.00956** | | **0.0356** | | 0.00558 | U | 0.00279 | U |
| | MW-161-60 | 5/14/18 | PES | ESC | 60 | | – | | – | | – | | 0.00114 | U | 0.00571 | U | 0.00286 | U | 0.00742 | U | **0.0356** | | **0.00328** | | **0.0316** | | 0.00571 | U | 0.00286 | U |
| | MW-161-70 | 5/14/18 | PES | ESC | 70 | | – | | – | | – | | 0.00112 | U | 0.00558 | U | 0.00279 | U | 0.00726 | U | 0.00279 | U | 0.00112 | U | 0.00279 | U | 0.00558 | U | 0.00279 | U |
| | MW-161-80 | 5/14/18 | PES | ESC | 80 | | – | | – | | – | | 0.00123 | U | 0.00616 | U | 0.00308 | U | 0.00801 | U | 0.00308 | U | 0.00123 | U | 0.00308 | U | 0.00616 | U | 0.00308 | U |
| | MW-161-90 | 5/14/18 | PES | ESC | 90 | | – | | – | | – | | 0.00114 | U | 0.00569 | U | 0.00285 | U | 0.00740 | U | 0.00285 | U | 0.00114 | U | 0.00285 | U | 0.00569 | U | 0.00285 | U |
| | B-927-30 | 5/14/18 | PES | ESC | 90 (dup) | | – | | – | | – | | 0.00124 | U | 0.00621 | U | 0.00310 | U | 0.00807 | U | 0.00310 | U | 0.00124 | U | 0.00310 | U | 0.00621 | U | 0.00310 | U |
| | MW-161-100 | 5/14/18 | PES | ESC | 100 | | – | | – | | – | | 0.00116 | U | 0.00582 | U | 0.00291 | U | 0.00757 | U | 0.00291 | U | 0.00116 | U | 0.00291 | U | 0.00582 | U | 0.00291 | U |
| | MW-161-110 | 5/14/18 | PES | ESC | 110 | | – | | – | | – | | 0.00122 | U | 0.00610 | U | 0.00305 | U | 0.00793 | U | 0.00305 | U | 0.00122 | U | 0.00305 | U | 0.00610 | U | 0.00305 | U |
| | MW-161-120 | 5/14/18 | PES | ESC | 120 | | – | | – | | – | | 0.00122 | U | 0.00610 | U | 0.00305 | U | 0.00793 | U | 0.00305 | U | 0.00122 | U | 0.00305 | U | 0.00610 | U | 0.00305 | U |
| | MW-161-130 | 5/14/18 | PES | ESC | 130 | | – | | – | | – | | 0.00110 | U | 0.00550 | U | 0.00275 | U | 0.00715 | U | **0.0307** | | **0.0114** | | 0.00275 | U | 0.00550 | U | 0.00275 | U |
| | MW-161-140 | 5/15/18 | PES | ESC | 140 | | – | | – | | – | | **0.000580** | **J** | **0.00175** | **J** | 0.000650 | U | 0.00586 | U | 0.000858 | U | 0.000490 | U | 0.000846 | U | 0.00175 | U | 0.000837 | UJ |
| PW-1 | Composite | 1/1/98 | B&V | Unknown | – | – | 31 | U | 63 | U | 130 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| PW-4 | Composite | 5/13/98 | B&V | Unknown | – | – | 27 | U | 53 | U | 110 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| R-MW4 | Unknown | 10/22/92 | Roux | Unknown | 5 | 47.00 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| | Unknown | 10/22/92 | Roux | Unknown | 15 | 37.00 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| | Unknown | 10/22/92 | Roux | Unknown | 30 | 22.00 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| R-MW6 | Unknown | 10/27/92 | Roux | Unknown | 6 | 39.50 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| | Unknown | 10/27/92 | Roux | Unknown | 11 | 34.50 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| R-MW6 | Unknown | 10/27/92 | Roux | Unknown | 16 | 29.50 | – | | – | | – | | – | | – | | – | | – | | 0.005 | U | 0.005 | U | – | | 0.005 | U | 0.010 | U |
| RB1 | RB1-17.5 | 10/18/93 | Retec | AAL | 17.5 | 18.40 | 5 | U | – | | – | | 0.063 | U | 0.063 | U | 0.063 | U | 0.13 | U | – | | – | | – | | – | | – | |
| RB2 | RB2-12.5 | 10/18/93 | Retec | AAL | 12.5 | 23.60 | 5 | U | – | | – | | 0.062 | U | 0.062 | U | 0.062 | U | 0.012 | U | – | | – | | – | | – | | – | |
| | RB2-17.5 | 10/18/93 | Retec | AAL | 17.5 | 18.60 | 5 | U | – | | – | | **0.045** | **J** | 0.062 | U | **0.058** | **J** | **0.18** | | – | | – | | – | | – | | – | |
| RB3 | RB3-17.5 | 10/18/93 | Retec | AAL | 17.5 | 20.50 | 5 | U | – | | – | | 0.061 | U | 0.061 | U | 0.061 | U | 0.12 | U | – | | – | | – | | – | | – | |
| SCL-B100 | B-100, S1 | 6/10/02 | Urban | F&BI | – | – | 1 | U | 50 | U | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B-100, S2 | 6/10/02 | Urban | F&BI | – | – | 1 | U | 50 | U | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| SCL-B101 | B-101- S1&2 | 6/17/02 | Urban | F&BI | – | – | **2** | | **140** | | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B101-S3 | 6/17/02 | Urban | F&BI | – | – | 1 | U | 50 | U | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| SCL-B102 | B102-S1 | 6/17/02 | Urban | F&BI | – | – | **6** | | **430** | | – | | **0.03** | | **0.09** | | **0.04** | | **0.13** | | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| | B102-S2 | 6/17/02 | Urban | F&BI | – | – | 1 | U | 50 | U | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | | Screening Levels | 30 | | 2,000 | | 2,000 | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | |
| SCL-MW101 | MW101-S3 | 6/14/02 | Urban | F&BI | – | – | 1 | U | – | | – | | **0.07** | | 0.02 | U | **0.04** | | **0.05** | | – | | – | | – | | – | | – | |
| SCL-MW102 | MW-102, S1 | 6/10/02 | Urban | F&BI | – | – | **99** | | – | | – | | **0.67** | | **0.47** | | **1.0** | | **2.5** | | – | | – | | – | | – | | – | |
| | MW-102, S2 | 6/10/02 | Urban | F&BI | – | – | **2** | | – | | – | | **0.05** | | 0.02 | U | **0.12** | | **0.07** | | – | | – | | – | | – | | – | |
| SCL-MW103 | MW103-S1&S2 | 6/14/02 | Urban | F&BI | – | – | 1 | U | – | | – | | 0.02 | U | 0.02 | U | 0.02 | U | 0.02 | U | – | | – | | – | | – | | – | |
| SCL-MW105 | MW-105, S2 | 6/10/02 | Urban | F&BI | – | – | **650** | | – | | – | | **2.1** | | **1.5** | | **11** | | **24** | | – | | – | | – | | – | | – | |
| | MW-105, S4 | 6/10/02 | Urban | F&BI | – | – | 1 | U | – | | – | | **0.05** | | 0.02 | U | 0.02 | U | **0.03** | | – | | – | | – | | – | | – | |
| SCLB-1 | RS1-2.5/RS-1 7.5 (Comp) | 3/12/93 | EPJ | OnSite | 2.5-7.5 | – | 20 | U | **290** | | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS1-12.5/RS1-17.5 (Comp) | 3/12/93 | EPJ | OnSite | 12.5-17.5 | – | **310** | | – | | – | | **2.0** | | **0.66** | | **5.0** | | **25.2** | **ve** | – | | – | | – | | – | | – | |
| | RS-1 17.5 | 3/12/93 | EPJ | OnSite | 17.5 | 21.00 | – | | 25 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS1-22.5/RS-27.5 (Comp) | 3/12/93 | EPJ | OnSite | 22.5-27.5 | – | **30** | **J** | – | | – | | **0.089** | **J** | **0.14** | | **0.31** | | **1.53** | | – | | – | | – | | – | | – | |
| | RS1-32.5 | 3/12/93 | EPJ | OnSite | 32.5 | 6.00 | **77** | | – | | – | | **0.18** | | **0.35** | | **0.96** | | **4.8** | | – | | – | | – | | – | | – | |
| | RS1-37.5 | 3/12/93 | EPJ | OnSite | 37.5 | 1.00 | 5 | U | – | | – | | 0.050 | U | 0.05 | U | 0.05 | U | 1 | U | – | | – | | – | | – | | – | |
| SCLB-2 | RS2-2.5/RS-2 7.5 (Comp) | 3/12/93 | EPJ | OnSite | 2.5-7.5 | – | **110** | | **610** | | 100 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS2-12.5/RS2-17.5 (Comp) | 3/12/93 | EPJ | OnSite | 12.5-17.5 | – | **1,800** | | – | | – | | **4.0** | | **24** | | **23** | | **115** | **ve** | – | | – | | – | | – | | – | |
| | RS2-17.5 | 3/12/93 | EPJ | OnSite | 17.5 | 21.00 | – | | **240** | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | RS2-22.5/RS2-27.5 (Comp) | 3/12/93 | EPJ | OnSite | 22.5-27.5 | – | **59** | | – | | – | | **0.8** | | **1.1** | | **0.85** | | **3.9** | | – | | – | | – | | – | | – | |
| | RS2-32.5 | 3/12/93 | EPJ | OnSite | 32.5 | 6.00 | **94** | | 25 | U | – | | **1.5** | | **2.7** | | **1.4** | | **6.8** | | – | | – | | – | | – | | – | |
| | RS2-37.5 | 3/12/93 | EPJ | OnSite | 37.5 | 1.00 | **9.8** | | – | | – | | **0.74** | | 0.05 | U | **0.11** | | **1.34** | | – | | – | | – | | – | | – | |
| SSD-MW-1 | MW-1 S-2 | 5/24/89 | HC | Unknown | 5-6.5 | 34.00 | **4** | **A** | – | | – | | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| | MW-1 S-6 | 5/24/89 | HC | Unknown | 15-16.5 | 24.00 | **332** | **A** | – | | – | | 0.01 | U | **1.03** | | **2.84** | | **6.25** | | – | | – | | – | | – | | – | |
| SSD-MW-2 | MW-2 S-3 | 5/24/89 | HC | Unknown | 7.5-9 | 31.00 | **338** | **A** | – | | – | | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| | MW-2 S-6 | 5/24/89 | HC | Unknown | 15-16.5 | 31.00 | **71** | **A** | – | | – | | 0.01 | U | **0.53** | | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| SSD-MW-3 | MW-3 S-2 | 5/24/89 | HC | Unknown | 5-6.5 | 34.00 | **1** | **A** | – | | – | | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| | MW-3 S-5 | 5/24/89 | HC | Unknown | 12.5-14 | 34.00 | **5** | **A** | – | | – | | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| SSD-MW-4 | MW-4 S-6 | 5/25/89 | HC | Unknown | 14.5-16 | 36.80 | **6** | **A** | – | | – | | 0.01 | U | 0.01 | U | **0.069** | | **0.096** | | – | | – | | – | | – | | – | |
| | MW-4 S-9 | 5/25/89 | HC | Unknown | 22-23 | 29.50 | **9** | **A** | – | | – | | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | – | | – | | – | | – | | – | |
| TB-12 | 16 | 8/1/97 | B&V | Unknown | 62-63 | -24.50 | 24 | U | 60 | U | 119 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| TB-18 | S-2 | 3/17/98 | B&V | Unknown | 5-6.5 | 38.30 | 27 | U | 55 | U | 110 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | S-8 | 3/17/98 | B&V | Unknown | 20-21.5 | 38.30 | 28 | U | 56 | U | 110 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | S-21 | 3/17/98 | B&V | Unknown | 57.5-59 | 38.30 | 28 | U | 56 | U | 110 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| W-MW-01 (P-03) | SB-W-03-0160 | 1/27/12 | WW | ARI | 16-16.5 | 29.10 | – | | – | | – | | 0.0010 | U | **0.0006** | **J** | 0.0010 | U | 0.0020 | U | 0.0010 | U | 0.0010 | U | **0.0006** | **J** | 0.0010 | U | 0.0010 | U |
| | SB-W-03-0225 | 1/27/12 | WW | ARI | 22.5-23 | 22.60 | – | | – | | – | | 0.0009 | U | **0.0007** | **J** | 0.0009 | U | 0.0018 | U | **0.03** | **B** | **0.0018** | | **0.0021** | | 0.0009 | U | 0.0009 | U |
| | SB-W-03-0315 | 1/27/12 | WW | ARI | 31.5-32 | 13.60 | – | | – | | – | | 0.21 | U | 0.21 | U | 0.21 | U | 0.42 | U | **16** | **B** | **0.59** | | **0.48** | | 0.21 | U | 0.21 | U |
| | SB-W-03-0450 | 1/27/12 | WW | ARI | 45-45.5 | -0.40 | – | | – | | – | | 0.0007 | U | **0.0006** | **J** | 0.0007 | U | 0.0014 | U | **0.38** | **B** | **0.022** | | **0.041** | | **0.0005** | **J** | 0.0007 | U |
| | SB-W-03-0550 | 1/27/12 | WW | ARI | 55.5-56 | -10.40 | – | | – | | – | | 0.045 | U | 0.045 | U | 0.045 | U | 0.09 | U | **1.9** | **J** | **0.17** | | **0.13** | | 0.045 | U | 0.045 | U |
| | SB-W-03-0645 | 1/27/12 | WW | ARI | 64.5-65 | -19.40 | – | | – | | – | | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0016 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U |
| | SB-W-03-0730 | 1/27/12 | WW | ARI | 73-73.5 | -27.90 | – | | – | | – | | 0.0007 | U | **0.0006** | **J** | 0.0007 | U | 0.0014 | U | **0.1** | B | **0.0081** | | **0.025** | | 0.0007 | U | 0.0007 | U |
| W-MW-02 (P-06) | SB-W-06-0900 | 1/29/12 | WW | ARI | 9-9.5 | 34.50 | – | | – | | – | | **0.0009** | **J** | 0.0013 | U | 0.0013 | U | 0.0026 | U | **0.058** | **T** | **0.0081** | | 0.0013 | U | 0.0013 | U | 0.0013 | U |
| | SB-W-06-0185 | 1/29/12 | WW | ARI | 18.5-19 | 25.00 | – | | – | | – | | **0.0008** | **J** | **0.0006** | **J** | 0.0009 | U | 0.0018 | U | 0.0009 | UT | 0.0009 | U | 0.0009 | U | 0.0009 | U | 0.0009 | U |
| | SB-W-06-0305 | 1/30/12 | WW | ARI | 30.5-31 | 13.00 | – | | – | | – | | 0.27 | U | 0.27 | U | 0.27 | U | 0.34 | U | **18** | | **0.41** | | **0.4** | | 0.27 | U | 0.27 | U |
| | SB-W-06-0380 | 1/30/12 | WW | ARI | 38-38.5 | 5.50 | – | | – | | – | | 0.046 | U | 0.046 | U | 0.046 | U | 0.092 | U | **0.14** | | **0.057** | | **0.52** | | 0.046 | U | 0.046 | U |
| | SB-W-06-0405 | 1/30/12 | WW | ARI | 40.5-41 | 3.00 | – | | – | | – | | 0.036 | U | 0.036 | U | 0.036 | U | 0.072 | U | **5.2** | | **0.2** | | **0.15** | | 0.036 | U | 0.036 | U |
| | SB-W-06-0485 | 1/30/12 | WW | ARI | 48.5-49 | -5.00 | – | | – | | – | | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0016 | U | **0.033** | | **0.0007** | **J** | **0.0009** | | 0.0008 | U | 0.0008 | U |
| | SB-W-06-9485 | 1/30/12 | WW | ARI | 48.5-49 (dup) | -5.00 | – | | – | | – | | 0.0009 | U | 0.0009 | U | 0.0009 | U | 0.0018 | U | **0.052** | | **0.0011** | | **0.0010** | | 0.0009 | U | 0.0009 | U |
| | SB-W-06-0590 | 1/30/12 | WW | ARI | 59-59.5 | -16.00 | – | | – | | – | | 0.043 | U | 0.043 | U | 0.043 | U | 0.086 | U | **0.53** | | **0.037** | **J** | 0.043 | U | 0.043 | U | 0.043 | U |
| | SB-W-06-0715 | 1/30/12 | WW | ARI | 71.5-72 | -28.00 | – | | – | | – | | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0016 | U | **0.0009** | | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U |
| | SB-W-06-0790 | 1/31/12 | WW | ARI | 79-79.5 | -35.50 | – | | – | | – | | 0.0009 | U | 0.0009 | U | 0.0009 | U | 0.0018 | U | **0.0022** | | 0.0009 | U | 0.0009 | U | 0.0009 | U | 0.0009 | U |

# Table F-1

## Soil Analytical Results for Petroleum Hydrocarbons and Chlorinated Volatile Organic Compounds
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | |
| | | | | | | **Screening Levels** | **30** | | **2,000** | | **2,000** | | **0.030** | | **0.273** | | **0.343** | | **0.831** | |
| **Off Property Statistics** | | | | | | Number of Analytes Measured | 133 | | 54 | | 45 | | 281 | | 281 | | 281 | | 281 | |
| | | | | | | Number of Analytes Detected | 41 | | 9 | | 7 | | 42 | | 40 | | 26 | | 29 | |
| | | | | | | Frequency of Detection | 31% | | 17% | | 16% | | 15% | | 14% | | 9% | | 10% | |
| | | | | | | Maximum Detection | 4,100 | | 610 | | 770 | | 10.0 | | 160 | | 54.0 | | 300 | |
| | | | | | | Minimum Detection | 0.0376 | U | 5.90 | U | 12 | U | 0.000285 | U | 0.000454 | U | 0.000311 | U | 0.000730 | U |
| **On and Off Property Statistics** | | | | | | Number of Analytes Measured | 239 | | 58 | | 49 | | 963 | | 963 | | 963 | | 963 | |
| | | | | | | Number of Analytes Detected | 101 | | 10 | | 7 | | 113 | | 118 | | 47 | | 56 | |
| | | | | | | Frequency of Detection | 42% | | 17% | | 14% | | 12% | | 12% | | 5% | | 6% | |
| | | | | | | Maximum Detection | 4,100 | | 610 | | 770 | | 10.0 | | 160 | | 54.0 | | 300 | |
| | | | | | | Minimum Detection | 0.0353 | U | 5.90 | U | 12 | U | 0.000281 | U | 0.000325 | U | 0.000297 | UJ | 0.000400 | J |

| Sample Location | Sample ID | Sample Date | Sampled By | Lab | Sample Depth (feet bgs) | Sample Elevation (feet NAVD 88) | Analytical Reslts (milligrams per kilogram) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | PCE | | TCE | | cDCE | | tDCE | | VC | | | | | |
| | | | | | | **Screening Levels** | **0.025** | | **0.030** | | **0.050** | | **0.050** | | **0.050** | | | | | |
| **Off Property Statistics** | | | | | | Number of Analytes Measured | 368 | | 368 | | 362 | | 360 | | 366 | | | | | |
| | | | | | | Number of Analytes Detected | 94 | | 69 | | 84 | | 13 | | 33 | | | | | |
| | | | | | | Frequency of Detection | 26% | | 19% | | 23% | | 4% | | 9% | | | | | |
| | | | | | | Maximum Detection | 19 | | 3.57 | | 3 | | 0.0221 | | 0.656 | | | | | |
| | | | | | | Minimum Detection | 0.000289 | U | 0.000290 | U | 0.000244 | UJ | 0.000274 | U | 0.000302 | U | | | | |
| **On and Off Property Statistics** | | | | | | Number of Analytes Measured | 1186 | | 1186 | | 1179 | | 1178 | | 1184 | | | | | |
| | | | | | | Number of Analytes Detected | 761 | | 604 | | 658 | | 242 | | 382 | | | | | |
| | | | | | | Frequency of Detection | 64% | | 51% | | 56% | | 21% | | 32% | | | | | |
| | | | | | | Maximum Detection | 16,400 | | 113 | | 329 | | 0.700 | | 17.0 | | | | | |
| | | | | | | Minimum Detection | 0.000289 | U | 0.000290 | U | 0.000244 | UJ | 0.000274 | U | 0.000302 | U | | | | |

Notes:

1. PHCs Analyzed by Method WTPH-HCID, Method 418.1, EPA Method 8020, EPA Method 8015M, or NWTPH-Gx.
2. VOCs Analyzed by EPA Methods 8010, 8020, 8021B, 8260B, 624/8240, or 8260C.
3. MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, revised November 2007.
4. CLARC, Soil, Method B, Non Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.
5. CLARC, Soil, Method B, Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.

Laboratory and Results Notes:

6. Detected results shown in bold, detections above the MTCA Cleanup level highlighted in gray
7. – =results not available or results not analyzed/measured
8. A = Result reported as total petroleum hydrocarbons.
9. B = Analyte detected in an associated method blank.
10. J = The reported concentration is an estimate based on detectable results between the method detection limit and reporting limit, laboratory QA/QC, or data validation review.
11. J+ = The result is an estimated quanitity, but the result may be biased high.
12. J- = The result is an estimated quanitity, but the result may be biased low.
13. ND = not detected above laboratory reporting limit; reporting limit not available
14. q = Sample may contain gasoline or petroleum components. Chromatographic pattern indicates the presence of gasoline constituents.
15. R = The data is unusable. The sample result is rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample

Laboratory and Results Notes:

16. T = Analyte also detected in trip blank.
17. U = Not detected at a concentration exceeding laboratory reporting limit
18. ve = Estimated value. The reported range exceeds the calibration range of the analysis.
19. w = Petroleum product eluting in the C8-C9 range
20. x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
21. z = Gasoline/petroleum detection result is likely elevated due to high detections of CVOCs.

Abbreviations:

22 . PCE = perchloroethylene (tetrachloroethene)
23. AAL = Alden Analytical Laboratories, Inc., of Seattle, Washington
24. ARI = Analytical Resource, Incorporated, Seattle, Washington
25. B&V = Black Veatch
26. bgs = below ground surface
27. cDCE = cis1-2,-dichloroethene
28. CLARC = cleanup levels and risk calculations
29. CVOCs = chlorinated volatile organic compounds
30. Comp = Composite Sample
31. DRO = diesel-range petroleum hydrocarbons
32. dup = duplicate
33. EPJ = E.PJohnson Construction Inc., and Environmental
34. ESC = ESC Lab Services
35. F&BI = Friedman & Bruya, Inc.
36. GeoEng = GeoEngineers, Inc.

Abbreviations:

35. GRO = gasoline-range petroleum hydrocarbons
36. HC = HC, Inc.
37. HCID = hydrocarbon identification
38. MTCA = Washington State Model Toxics Control Act
39. NCA = North Creek Analytical, of Bothell, Washington
40. NWTPH = Northwest Total Petroleum Hydrocarbon
41. OnSite = OnSite Environmental Inc., of Redmond, Washington
42. ORO = oil-range petroleum hydrocarbons
43. PCE = perchloroethylene (tetrachloroethene)
44. PES = PES Environmental, Inc.
45. PHCs = petroleum hydrocarbons
46. Retec = Remediation Technologies, Inc.
47. Roux = Roux Associates
48. SES = SoundEarth Strategies, Inc.
49. TCE = trichloroethylene
50. tDCE = trans-1,2-dichloroethene
51. TR = TR Corporation

52. Urban = Urban Redevelopment LLC
53. VC = Vinyl Chloride
54. WAC = Washington Administrative Code
55. WW = WW Environmental LLC

# Table F-2

## Excavation Soil Analytical Results
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Laboratory | Sample Depth (ft bgs) | Analytical Results (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC | 1,1-DCE | DCM | Napthalene | Total PAHs |
| **The Property** | | | | | | | | | | | | | | | | | | | | | |
| **Sump No. 4** | Sump4_Soil_01 | 7/22/2011 | SES | F&BI | 1 | – | – | – | 0.03 U | 0.05 U | 0.05 U | 0.15 U | **19** | **0.037** | **0.15** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.5 U |
| **Excavation 1** | EX01-S01-04 | 9/12/2002 | SES | F&BI | 4 | – | – | – | – | – | – | – | **14** | 0.03 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | – | – |
| | EX01-S02-02.5 | | | | 2.5 | – | – | – | – | – | – | – | **3.7** | 0.03 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | – | – |
| | EX01-S03-05 | | | | 5 | – | – | – | – | – | – | – | **19** | **0.052** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | – | – |
| | EX01S04-4.2ht | 2/10/2012 | | | 4.2 | – | – | – | – | – | – | – | **150** | **0.44** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.92** lc | – | – |
| | EX01S05-6ht | | | | 6 | – | – | – | – | – | – | – | **190** | **0.38** | **0.23** | 0.05 U | 0.05 U | 0.05 U | **0.51** lc | – | – |
| | EX01S07-2.5ht | | | | 2.5 | – | – | – | – | – | – | – | **5.4** | 0.03 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.52** lc | – | – |
| | EX01-S18-07.5 | 3/21/2012 | | | 7.5 | – | – | – | – | – | – | – | **0.98** | 0.03 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | – | – |
| **Tank 1 Excavation** | Tank1-SSW06 | 3/22/2013 | SES | F&BI | 6 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank1-WSW06 | | | | 6 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank1-F08 | | | | 8 | – | 120 x | **340** | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Tank 2 Excavation** | Tank2-NSW06 | 3/22/2013 | SES | F&BI | 6 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank2-F08 | | | | 8 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Tank 3 Excavation** | Tank3-ESW05 | 3/22/2013 | SES | F&BI | 5 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank3-SSW05 | | | | 5 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank3-F08 | | | | 8 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Tank 4 Excavation** | Tank4-NSW08 | 3/22/2013 | SES | F&BI | 8 | – | **460** x | **360** | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank4-F10 | | | | 10 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Tank 5 Excavation** | Tank5-ESW02 | 3/22/2013 | SES | F&BI | 2 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank5-WSW02 | | | | 2 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Tank5-F03 | | | | 3 | – | 50 U | 250 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **753 9th Avenue North Parcel** | | | | | | | | | | | | | | | | | | | | | |
| **Tank 1 and 2 Excavation** | T12-SPLS-1 | 7/22/1992 | GTC | OnSite | 7 | **3,000 M** | – | – | 0.25 U | **1** | **22** | **111** | – | – | – | – | – | – | – | – | – |
| | T12-B-1 | 7/22/1992 | GTC | OnSite | 14 | **80** | – | – | **0.6** | **0.06** | **0.92** | **2.24** | – | – | – | – | – | – | – | – | – |
| | T12-CL-1 | 7/22/1992 | GTC | OnSite | 4 | 50 U | – | – | 0.05 U | 0.05 U | 0.05 U | 0.10 U | – | – | – | – | – | – | – | – | – |
| **Tank 3 Excavation** | T3-SPLS-2 | 7/22/1992 | GTC | OnSite | 7.5 | **1,700 M** | – | – | 0.05 U | **1.6** | **4.6** | **9.5** | – | – | – | – | – | – | – | – | – |
| | T3-CL-1 | 7/22/1992 | GTC | OnSite | 4 | 50 U | – | – | 0.05 U | 0.05 U | 0.05 U | 0.10 U | – | – | – | – | – | – | – | – | – |
| **800 Aloha Street Parcel** | | | | | | | | | | | | | | | | | | | | | |
| **RS-01** | RS-1 | 3/1/1993 | EPJ | OnSite | 3 | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-02** | RS-2 | 3/1/1993 | EPJ | OnSite | 6 | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-04** | RS-4 | 3/3/1993 | EPJ | OnSite | 7 | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-05** | RS-5 | 3/3/1993 | EPJ | OnSite | 9 | **1,700** | – | – | 0.25 U | **1.5** | **8.3** | **29.2** | – | – | – | – | – | – | – | – | – |
| **RS-06** | RS-6 | 3/3/1993 | EPJ | OnSite | 8 | **88** | – | – | 0.05 U | 0.05 U | 0.05 U | **0.31** | – | – | – | – | – | – | – | – | – |
| **RS-07** | RS-7 | 3/3/1993 | EPJ | OnSite | 7 | **1,500** | – | – | 0.25 U | **1.4** | **9.6** | **69** | – | – | – | – | – | – | – | – | – |
| **RS-08** | RS-8 | 3/3/1993 | EPJ | OnSite | 8 | **3,400** | – | – | 0.25 U | **1.2** | **21** | **71** | – | – | – | – | – | – | – | – | – |
| **RS-09** | RS-9 | 3/3/1993 | EPJ | OnSite | 7 | **24** | – | – | 0.05 U | 0.05 U | **0.066** | **20.8** | – | – | – | – | – | – | – | – | – |
| **RS-10** | RS-10 | 3/3/1993 | EPJ | OnSite | 13 | **140** | – | – | **2.3** | **0.32** | **1.1** | **2.49** | – | – | – | – | – | – | – | – | – |
| **RS-11** | RS-11 | 3/3/1993 | EPJ | OnSite | 8 | **60** | – | – | **0.15** | **0.0088** | **0.18** | **0.5** | – | – | – | – | – | – | – | – | – |
| **RS-12** | RS-12 | 3/3/1993 | EPJ | OnSite | 10 | **3,800** | – | – | **2.5** | **1.4** | **14** | **20.8** | – | – | – | – | – | – | – | – | – |
| **RS-13** | RS-13 | 3/3/1993 | EPJ | OnSite | 9 | **3,100** | – | – | **4.1** | **1.4** | **27** | **26** | – | – | – | – | – | – | – | – | – |
| **RS-14** | RS-14 | 3/3/1993 | EPJ | OnSite | 8 | **1,100** | – | – | **0.690** | **2.2** | **7.3** | **33** | – | – | – | – | – | – | – | – | – |
| **RS-15** | RS-15 | 3/3/1993 | EPJ | OnSite | 4 | **1,900** | – | – | **5.1** | **1.7** | **28** | **279** | – | – | – | – | – | – | – | – | – |
| **RS-16** | RS-16 | 3/3/1993 | EPJ | OnSite | 4 | **15,000** | – | – | **100** | **260** | **170** | **460** | – | – | – | – | – | – | – | – | – |
| **RS-17** | Stockpile | 3/4/1993 | EPJ | OnSite | – | **18,000 BE** | – | – | **170 E** | **300 BE** | **200 E** | **530 E** | – | – | – | – | – | – | – | – | – |
| **RS-18** | Stockpile | 3/4/1993 | EPJ | OnSite | – | **1,700 B** | – | – | **1.5** | **7.4** | **4.8** | **41** | – | – | – | – | – | – | – | – | – |
| **RS-19** | Stockpile - Sludge from cleaning out USTs 1 and 2 | 3/10/1993 | EPJ | OnSite | – | **120,000 E** | – | – | **1,700 E** | **2,200 E** | **1,200 E** | **3,200 E** | – | – | – | – | – | – | – | – | – |
| **RS-21** | RS-21 | 3/5/1993 | EPJ | OnSite | 20 | **3,700** | – | – | **3** | **79 E** | **45 E** | **226 E** | 0.050 U | 0.050 U | – | 0.050 U | 0.050 U | 0.050 U | 0.050 U | – | – |
| **RS-22** | RS-22 | 3/5/1993 | EPJ | OnSite | 10 | **6,900** | – | – | 0.25 U | 1.1 | **16** | **73 E** | 0.040 U | 0.040 U | – | 0.040 U | 0.040 U | 0.040 U | 0.040 U | – | – |
| **RS-23** | Stockpile | 3/5/1993 | EPJ | OnSite | – | **4,600** | – | – | **0.88** | **18** | **42 E** | **199 E** | – | – | – | – | – | – | – | – | – |
| **RS-24** | Stockpile | 3/5/1993 | EPJ | OnSite | – | **15** | – | – | 0.1 U | 0.1 U | **0.070** | **0.32** | – | – | – | – | – | – | – | – | – |
| **RS-25** | Stockpile | 3/5/1993 | EPJ | OnSite | – | **2,600** | – | – | 0.25 U | **7.4** | **18** | **129 E** | – | – | – | – | – | – | – | – | – |

# Table F-2

## Excavation Soil Analytical Results
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Laboratory | Sample Depth (ft bgs) | Analytical Results (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC | 1,1-DCE | DCM | Napthalene | Total PAHs |
| **RS-26** | RS-26 | 3/8/1993 | EPJ | OnSite | 20 | **3,700 B** | – | – | **6.3** | **76 BE** | **50 E** | **216 E** | – | – | – | – | – | – | – | – | – |
| **RS-26A** | Pit #3 | 3/16/1993 | EPJ | OnSite | 20 | **1,100** | – | – | **2.5** | **25** | **15** | **76 E** | – | – | – | – | – | – | – | – | – |
| **RS-27** | RS-27 | 3/8/1993 | EPJ | OnSite | 6 | **15 BJ** | – | – | 0.050 U | **0.33 B** | **0.19** | **0.95 B** | – | – | – | – | – | – | – | – | – |
| **RS-28** | RS-28 | 3/8/1993 | EPJ | OnSite | 6 | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-29** | RS-29 | 8/3/1993 | EPJ | OnSite | 20 | **2,000 B** | – | – | **0.86** | **24 B** | **33** | **168 BE** | – | – | – | – | – | – | – | – | – |
| **RS-30** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | 100 U | – | – | | – | – | – | – | – | – | – | – | – | – |
| **RS-31** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-32** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | 100 U | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-33** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | **220** | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-34** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | **220** | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-35** | Stockpile | 3/9/1993 | EPJ | OnSite | – | 20 U | 50 U | **220** | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-36** | Stockpile | 3/9/1993 | EPJ | OnSite | – | NA | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **RS-37** | Stockpile | 3/9/1993 | EPJ | OnSite | – | NA | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **PD-1** | PD-1 | 6/28/1993 | RT | AAL | 19 | **3,300** | – | – | **17** | **45** | **39** | **221** | – | – | – | – | – | – | – | – | – |
| **PD-2** | PD-2 | 6/28/1993 | RT | AAL | 10 | 19 U | – | – | 0.25 U | 20 U | 10 U | 10.0 U | – | – | – | – | – | – | – | – | – |
| **PD-3** | PD-3 | 6/28/1993 | RT | AAL | 17 | **1,700** | – | – | **7.5** | 20 U | **12** | **60** | – | – | – | – | – | – | – | – | – |
| **PD-4** | PD-4 | 6/28/1993 | RT | AAL | 17 | 19 U | – | – | 0.25 U | 20 U | 10 U | 10.0 U | – | – | – | – | – | – | – | – | – |
| **PD-5** | PD-5 | 6/28/1993 | RT | AAL | 10 | 19 U | – | – | 0.25 U | 20 U | 10 U | 10.0 U | – | – | – | – | – | – | – | – | – |
| **TS1** | TS1-17 | 9/27/1993 | RT | ARI | 17 | **110** | – | – | **0.29** | **1.8** | **2.1** | **11** | – | – | – | – | – | – | – | – | – |
| **TS2** | TS2-15 | 9/27/1993 | RT | ARI | 15 | **41** | – | – | **0.14** | 0.064 U | **0.46** | **0.67** | – | – | – | – | – | – | – | – | – |
| **TS4** | TS4-25 | 10/4/1993 | RT | ARI | 25 | **1,400** | – | – | **8.2** | **51** | **22** | **120** | – | – | – | – | – | – | – | – | – |
| **TS5** | TS5-10 | 10/4/1993 | RT | ARI | 10 | **1,200** | – | – | 0.58 U | **9.3** | **10** | **68** | – | – | – | – | – | – | – | – | – |
| **TS6** | TS6-19 | 10/4/1993 | RT | ARI | 19 | **1,300** | – | – | **7.7** | **43** | **22** | **120** | – | – | – | – | – | – | – | – | – |
| **TS7** | TS7-15 | 10/4/1993 | RT | ARI | 15 | 5.0 U | – | – | 0.056 U | 0.056 U | 0.056 U | 0.11 U | – | – | – | – | – | – | – | – | – |
| **TS8** | TS8-25 | 10/4/1993 | RT | ARI | 25 | **560** | – | – | **3.5** | **20** | **9.1** | **50** | – | – | – | – | – | – | – | – | – |
| **TS9** | TS9-25 | 10/4/1993 | RT | ARI | 25 | **1,600** | – | – | **2.9** | **7.6** | **24** | **110** | – | – | – | – | – | – | – | – | – |
| **TS10** | TS10-15 | 10/6/1993 | RT | ARI | 15 | **37** | – | – | **0.1** | **0.82** | **0.82** | **4.3** | – | – | – | – | – | – | – | – | – |
| **TS11** | TS11-10 | 10/6/1993 | RT | ARI | 10 | 5.0 U | – | – | 0.056 U | 0.056 U | 0.056 U | 0.113 U | – | – | – | – | – | – | – | – | – |
| **TS12** | TS12-10 | 10/6/1993 | RT | ARI | 10 | 5.0 U | – | – | 0.056 U | 0.056 U | 0.056 U | 0.113 U | – | – | – | – | – | – | – | – | – |
| **TS13** | TS13-18 | 10/6/1993 | RT | ARI | 18 | **360** | – | – | **4.8** | **4.6** | **4.6** | **27** | – | – | – | – | – | – | – | – | – |
| **TS15** | TS15-15 | 10/14/1993 | RT | AAL | 15 | **1,500** | – | – | **3.3** | **28** | **23** | **130** | – | – | – | – | – | – | – | – | – |
| **SP-1** | SP-1 (S-1) | 6/11/2002 | UR | F&BI | NA | **7** | **2,400** | – | – | – | – | – | – | – | – | – | – | – | – | | **0.18** |
| | SP-1 (S-2) | | | | NA | **2** | **110** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-2** | SP-2 (S-1) | 6/11/2002 | UR | F&BI | NA | 1 U | **740** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | SP-2 (S-2) | | | | NA | 1 U | **230** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-3** | SP-3 (S-1) | 6/11/2002 | UR | F&BI | NA | – | **670** | – | – | – | – | – | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | – | | **0.18** |
| **SP-4** | SP-4 (S-1) | 6/11/2002 | UR | F&BI | NA | – | **320** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-5** | SP-5 (S-1) | 6/11/2002 | UR | F&BI | NA | – | **280** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-6** | SP-6 (S-1) | 6/11/2002 | UR | F&BI | NA | – | **190** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | SP-6 (S-2) | | | | NA | 1 U | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-7** | SP-7 (S-1) | 6/11/2002 | UR | F&BI | NA | – | **210** | – | – | – | – | – | – | – | – | – | – | – | – | NA | **0.14** |
| **SP-8** | SP-8 (S-1) | 6/11/2002 | UR | F&BI | NA | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-9** | SP-9 (S-1) | 6/11/2002 | UR | F&BI | NA | **32** | **1,800** | – | **0.14** | **0.17** | **0.13** | **0.47** | – | – | – | – | – | – | – | – | – |
| | SP-9 (S-2) | | | | NA | **500** | – | – | **0.94** | **1.7** | **3.3** | **5.1** | – | – | – | – | – | – | – | – | – |
| **SP-10** | SP-10 (S-2) | 6/11/2002 | UR | F&BI | NA | **3,400** | – | – | **9.6** | **11** | **60** | **240** | – | – | – | – | – | – | – | – | – |
| **SP-11** | SP-11 (S-1) | 6/11/2002 | UR | F&BI | NA | 1 U | – | – | 0.02 U | 0.02 U | 0.02 U | 0.02 U | – | – | – | – | – | – | – | – | – |
| **SP-12** | SP-12 (S-1) | 6/11/2002 | UR | F&BI | NA | **9** | – | – | **0.10** | **0.07** | **0.04** | **0.06** | – | – | – | – | – | – | – | – | – |
| **SP-13** | SP-13 (S-1) | 6/11/2002 | UR | F&BI | NA | **26** | – | – | **0.34** | **0.17** | **0.03** | **0.15** | – | – | – | – | – | – | – | – | – |
| **SP-14** | SP-14 (S-1) | 6/11/2002 | UR | F&BI | NA | **600** | – | – | **0.81** | **3.3** | **9.7** | **36** | – | – | – | – | – | – | – | – | – |
| **SP-15** | SP-15 (S-6) | 6/11/2002 | UR | F&BI | NA | 1 U | – | – | 0.02 U | 0.02 U | 0.02 U | 0.02 U | – | – | – | – | – | – | – | – | – |

# Table F-2

## Excavation Soil Analytical Results
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Laboratory | Sample Depth (ft bgs) | Analytical Results (milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC | 1,1-DCE | DCM | Napthalene | Total PAHs |
| **SP-16** | SP16 (S1 & S2) | 6/12/2002 | UR | F&BI | NA | – | **650** | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | SP16 (S-5) | | | | NA | – | 50 U | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | SP16 (S-6) | | | | NA | – | 50 U | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | SP16 (S-7) | | | | NA | – | 50 U | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **SP-17** | SP 17 (S-2) | 6/12/2002 | UR | F&BI | NA | **530** | – | – | **2.6** | **24** | **15** | **66** | – | – | – | – | – | – | – | – | – |
| | SP 17 (S-3) | | | | NA | **11** | – | – | **0.04** | **0.07** | **0.29** | **0.26** | – | – | – | – | – | – | – | – | – |
| **SP-18** | SP 18 (S-2) | 6/12/2002 | UR | F&BI | NA | **2,600** | – | – | **12** | **83** | **74** | **320** | – | – | – | – | – | – | – | – | – |
| **SP-19** | SP 19 (S-1) | 6/12/2002 | UR | F&BI | NA | **85** | **570** | – | **2.2** | **1.0** | **1.9** | **3.6** | – | – | – | – | – | – | – | – | – |
| | SP 19 (S-2) | | | | NA | **4,100** | – | – | **16** | **120** | **110** | **500** | – | – | – | – | – | – | – | – | – |
| **SP-20** | SP20 (S-2-5') | 6/12/2002 | UR | F&BI | NA | **5** | – | – | **0.14** | **0.03** | **0.15** | **0.26** | – | – | – | – | – | – | – | – | – |
| | SP20 (S-2-8') | | | | NA | 1 U | – | – | **0.07** | 0.02 U | 0.02 U | **0.05** | – | – | – | – | – | – | – | – | – |
| **SP-21** | SP-21 (S-1) | 6/12/2002 | UR | F&BI | NA | **25** | **350** | – | **0.84** | **0.23** | **0.17** | **0.17** | – | – | – | – | – | – | – | – | – |
| | SP-21 (S-2) | | | | NA | **1,200** | – | – | **3.5** | **12** | **19** | **52** | – | – | – | – | – | – | – | – | – |
| **MTCA Cleanup Level for Soil** | | | | | | **30**[8] | **2,000**[8] | **2,000**[8] | **0.03**[8] | **7**[8] | **6**[8] | **9**[8] | **0.05**[8] | **0.03**[8] | **160**[9] | **1,600**[9] | **0.67**[10] | **4,000**[8] | **0.02**[8] | **5**[8] | **0.1**[8][11] |

Notes:

PHCs analyzed by Method WTPH-HCID, EPA Method 8020, EPA Method 8015M, or NWTPH-Gx, or EPA Method WTPH-HCID, or Method 418.1.

VOCs analyzed by EPA Methods 8010, 8020, 8021B, 8260B, 624/8240, or 8260C, or 8270D, or 8270-SIM.

PAHs analyzed by EPA Methods 8010, 8260B, 8260C, 8270, 8270D, or 8270D-SIM.

(7)When determining the total TEC of benzo(a)pyrene for a sample, the concentrations of each of the seven cPAHs listed in table 708-2 (under WAC 173-340-900) is multiplied by its corresponding TEF. The sum of these seven factors equal the total TEC. When the analytical result for any individual cPAH is reported as less than the LRL, half of the LRL is used as the concentrations for the calculation. The resultant total TEC concentration is then compared to the cleanup level for benzo(a)pyrene.

(8)MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, revised November 2007.

(9)CLARC, Soil, Method B, Non Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.

(10)CLARC, Soil, Method B, Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.

(11)The cleanup level for carcinogenic PAHs is based on direct contact using Equation 740-2 under WAC 173-340-740. When establishing and determining compliance with cleanup levels for mixtures of carcinogenic PAHs, the mixture of carcinogenic PAHs is considered a single hazardous substance. Benzo(a)pyrene's cleanup level is used as the cleanup level for the mixture.

Abbreviations

AAL = Alden Analytical Laboratories, Inc., of Seattle, Washington
ARI = Analytical Resources, Inc.
bgs = below ground surface
cDCE = cis-1,2-dichloroethene
CLARC = cleanup levels and risk calculations
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
1,1-DCE = 1,1-dichloroethylene
DCM = dichloromethane (methylene chloride)
DRPH = diesel-range petroleum hydrocarbons
EPJ = E.PJohnson Construction, Inc& Environmental
F&BI = Friedman & Bruya, Inc., of Seattle, Washington
GRPH = gasoline-range petroleum hydrocarbons
GTC = GeoTech Consultants, Inc.
MTCA = Washington State Model Toxics Control Act
OnSite = OnSite Environmental Inc., of Redmond, Washington
ORPH = oil-range petroleum hydrocarbons
PAHs = polycyclic aromatic hydrocarbons
PCE = perchloroethylene (tetrachloroethene)
RT = Remediation Technologies, Inc./ThermoRetec Corporation
SES = SoundEarth Strategies, Inc.
TCE = trichloroethylene
tDCE = trans-1,2-dichloroethene
TEC = toxicity equivalent concentration
TEF = total equivalency factor
UR = Urban Redevelopment LLC
WAC = Washington State Administrative Code

Laboratory and Results Notes

Detected results shown in bold, detections above the MTCA Cleanup level highlighted in gray
– = not analyzed
B = Analyte detected in an associated Merthod Blank
E = Estimated value. The reported range exceeds the calibration range of the analysis.
ht = Analysis performed outside the method or client-specified holding time requirement.
J = Estimated concentration.
lc = The presence of the compound indicated is likely due to laboratory contamination.
M = Headspace present in sample
NA = results not available
U = not detected at a concentration exceeding the laboratory reporting limit
x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

# Table F-3

## Soil Analytical Results for Metals
## Former American Linen Property
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Laboratory | Sample Depth (feet bgs) | Analytical Results (milligrams per kilogram) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |
| **The Property** | | | | | | | | | | | | | |
| Tank 2 Excavation | Tank2-F08 | 3/22/13 | SES | F&BI | 8 | **1.81** | **39.4** | 1 U | **10.8** | **6.94** | **0.28** | 1 U | 1 U |
| **800 Aloha Street Parcel** | | | | | | | | | | | | | |
| RS-05 | RS-5 | 3/3/93 | EPJ | SAS | 9 | – | – | – | – | **32** | – | – | – |
| RS-10 | RS-10 | 3/3/93 | EPJ | SAS | 13 | – | – | – | – | **71** | – | – | – |
| RS-15 | RS-15 | 3/3/93 | EPJ | SAS | 4 | – | – | – | – | **480** | – | – | – |
| RS-16 | RS-16 | 3/3/93 | EPJ | SAS | 4 | – | – | – | – | **80** | – | – | – |
| RS-17 & RS-24 | RS-17/RS-24 | 3/3/93 | EPJ | SAS | – | 4.2 U | **260** | **1.4** | **24** | **120** | **0.33** | 4.2 U | **0.79** |
| SCL-B100 | B-100, S1 | 6/10/02 | Urban | F&BI | NA | 10 U | **50** | 1.0 U | **25** | **4.5** | 0.200 U | 10 U | 10 U |
| | B-100, S2 | 6/11/02 | | | NA | 10 U | **45** | 1.0 U | **24** | **4.1** | 0.200 U | 10 U | 10 U |
| SP-1 | SP-1 (S-1) | 6/11/02 | Urban | F&BI | NA | 10 U | **170** | 1.0 U | **24** | **140** | **1.28** | 10 U | 10 U |
| SP-2 | SP-2 (S-2) | 6/11/02 | Urban | F&BI | NA | 10 U | **83** | **1.7** | **18** | **44** | 0.200 U | 10 U | 10 U |
| SP-3 | SP-3 (S-1) | 6/11/02 | Urban | F&BI | NA | 10 U | **120** | 1.0 U | **20** | **230** | **1.32** | 10 U | 10 U |
| SP-7 | SP-7 (S-1) | 6/11/02 | Urban | F&BI | NA | **16** | **230** | **1.0** | **18** | **410** | **2.81** | 10 U | 10 U |
| SP-16 | SP16 (S1 & S2) | 6/12/13 | Urban | F&BI | NA | 10 U | **400** | 1.0 U | **30** | **220** | **0.247** | 10 U | 10 U |
| SCL-B101 | B-101- S1&2 | 6/17/02 | Urban | F&BI | NA | 10 U | **170** | 1.0 U | **18** | **230** | NA | 10 U | 10 U |
| | B101-S3 | | | | NA | 10 U | **82** | 1.0 U | **27** | **5.3** | NA | 10 U | 10 U |
| SCL-B102 | B102-S2 | 6/17/02 | Urban | F&BI | NA | 10 U | **59** | 1.0 U | **28** | **9.9** | NA | 10 U | 10 U |
| | B102-S1 | | | | NA | 10 U | **210** | 1.0 U | **24** | **440** | NA | 10 U | 10 U |
| SCL-MW-101 | MW101-S3 | 6/14/02 | Urban | F&BI | NA | 10 U | **27** | 1.0 U | **16** | **3.6** | NA | 10 U | 10 U |
| SCL-MW-103 | MW103-S1&S2 | 6/14/02 | Urban | F&BI | NA | 10 U | **35** | 1.0 U | **33** | **4.5** | NA | 10 U | 10 U |
| **MTCA Cleanup Level** | | | | | | **20**(3) | **16,000**(4) | **2**(3) | **2,000**(3) | **250**(3) | **2**(3) | **400**(4) | **400**(4) |

Notes:
Trace elements analyzed by EPA Methods 200.8 or 6010.
Mercury analyzed by EPA Method 1631E or 7471.
(3)MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, revised November 2007.
(4)CLARC, Soil, Method B, Non Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.

Abbreviations:
bgs = below ground surface
CLARC = cleanup levels and risk calculations
EPJ = E.P. Johnson Construction, Inc. & Environmental
F&BI = Friedman & Bruya, Inc., of Seattle, Washington
MTCA = Washington State Model Toxics Control Act
SAS = SoundAnalytical Services, Inc., of Tacoma, Washington
SES = SoundEarth Strategies, Inc.
Urban = Urban Redevelopment LLC

Lab and Results Notes:
Detected results shown in bold, detections exceeding MTCA Cleanup Levels highlighted in gray.
U = not detected at a concentration exceeding laboratory reporting limit.
– = results not available or not analyzed

# Table F-4

## Chlorinated Volatile Organic Compound Toxicity Characteristic Leaching Procedure Results
## Former American Linen Supply
## 700 Dexter Avenue North Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Sample Depth (feet bgs) | Analytical Results (milligrams per liter) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | PCE | TCE | 1,1-DCE | Vinyl Chloride | EDC | MEK | Carbon Disulfide | Chloroform |
| **The Property** | | | | | | | | | | | | |
| G-MW1 | MW-1-8-20 | 07/20/01 | GeoEngineers | 20 | **99.3 B** | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U |
| G-SB4/G-MW3 | SB4-7-17.5 | 07/20/01 | GeoEngineers | 17.5 | **0.182 B** | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U | 0.0800 U |
| **Dangerous Waste Characteristics** | | | | | **0.7** | **0.5** | **0.7** | **0.2** | **0.5** | **200** | **NE** | **6** |

Notes:

1. Laboratory analyses conducted by North Creek Analytical, Inc. of Bothell, Bothell, Washington.
2. VOCs analyzed by U.S. Environmental Protection Agency Method 1311/8260B.
3. bgs = below ground surface
4. GeoEngineers = GeoEngineers, Inc.
5. PCE = perchloroethylene (tetrachloroethene)
6. TCE = trichloroethylene
7. 1,1-DCE = 1,1-dichloroethene
8. EDC = 1,2-dichloroethane
9. MEK = methyl ethyl ketone (2-Butanone)
10. Detected results shown in bold, detections exceeding Dangerous Waste Characteristics highlighted in gray
11. U = not detected at a concentration exceeding laboratory reporting limit
12. B = Analyte detected in an associated Method Blank.
13. NE = not established
14. Washington State Dangerous Waste Maximum Concentration of Contaminants for the Toxicity Characteristic, Chapter 173-303-090 of the Washington Administrative Code.

# Table F-5

## Metals Toxicity Characteristic Leaching Procedure Results
## Former American Linen Supply
## 700 Dexter Avenue North Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sampled By | Sample Depth (feet bgs) | Analytical Results (milligrams per liter) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |
| **800 Aloha Street Parcel** | | | | | | | | | | | | |
| RS-19 | Stockpile - Sludge from cleaning out USTs 1 and 2 | 3/10/93 | EPJ | – | **0.20** | **0.42** | **0.50** | **0.01** | **2.8** | 0.002 U | 0.14 U | 0.01 U |
| RS-25 | Stockpile | 3/5/93 | EPJ | – | 0.10 U | **1.0** | 0.005 U | 0.01 U | **0.29** | 0.002 U | 0.15 U | 0.01 U |
| **Dangerous Waste Characteristics** | | | | | **5.0** | **100** | **1.0** | **5.0** | **5.0** | **0.2** | **1.0** | **5** |

Notes:

1. Laboratory analyses conducted by Sound Analytical Services, Inc., of Tacoma, Washington.
2. Trace elements analyzed by EPA Method 6010.
3. Mercury analyzed by EPA Method 7471.
4. bgs = below ground surface
5. EPJ = E.P. Johnson Construction, Inc. & Environmental
6. – = not measured
7. Detected results shown in bold, detections exceeding MTCA Cleanup Levels highlighted in gray
8. U = not detected at a concentration exceeding laboratory reporting limit
9. Washington State Dangerous Waste Maximum Concentration of Contaminants for the Toxicity Characteristic, Chapter 173-303-090 of the Washington Administrative Code.

## Table F-6

## Sludge Sample Analytical Results
## Former American Linen Property
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample ID | Sample Date | Sample Depth | Analytical Results (milligrams per kilogram) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | | 1,1-DCE | | Methylene Chloride | |
| Sump 2 | Sump 2 | 4/26/2011 | – | 0.03 | U | **12** | | 0.05 | U | **3.3** | | **15** | | **0.11** | | **0.10** | | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| Sump 3 | Sump 3 | 5/2/2011 | – | 0.03 | U | **0.074** | | 0.05 | U | **0.12** | | 0.025 | U | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| Sump 4 | Sump 4 | 4/26/2011 | – | 3 | U | **35** | | 5 | U | **17** | **J** | **85,000** | | **520** | | **410** | | 5 | U | 5 | U | 5 | U | 5 | U |
| | SUMP4_B_20110629 | 6/29/2011 | – | 0.3 | U | 0.5 | U | 0.5 | U | 1.03 | U | **560** | | **5.4** | | **27** | | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U |
| | SUMP4_C_20110629 | 6/29/2011 | – | 30 | U | 50 | U | 50 | U | 150 | U | **24,000** | | **140** | | **170** | | 50 | U | 50 | U | 50 | U | 50 | U |
| Sump 5 | Sump 5 | 5/4/2012 | – | **0.60** | | **4.6** | | **1.6** | | **2.6** | | **1,200** | | **180** | | **880** | | **12** | | **31** | | **2.6** | | 0.2 | U |
| Cleanout 1 | Cleanout 1 S-1/S-2 (composite) | 4/26/2011 | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | **5.5** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| Cleanout 2 | Clean out 2 | 5/2/2011 | – | **0.38** | | **6.0** | | **1.7** | | **11.9** | | **2.6** | | **0.14** | | **1.0** | | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| Trench 1 | 01_Floor Trench | 7/22/2011 | – | 0.03 | U | 0.05 | U | 0.05 | U | 0.15 | U | **0.10** | | 0.03 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U | 0.05 | U |
| Screening Level | | | | 0.030 | | 0.273 | | 0.343 | | 0.831 | | 0.025 | | 0.030 | | 0.050 | | 0.050 | | 0.050 | | 0.050 | | 0.050 | |
| Dangerous Waste Criteria | | | | NE | | NE | | NE | | NE | | 14 | | NE | | NE | | NE | | NE | | NE | | NE | |

Notes:

1. Chemical analyses conducted by Freidman & Bruya Inc., of Seattle, Washington.
2. VOCs analyzed by U.S. Environmental Protection Agency Method 8260C.
3. PCE = perchloroethylene (tetrachloroethene)
4. TCE = trichloroethene
5. cDCE = cis-1,2-dichloroethene
6. tDCE = trans-1,2-dichloroethene
7. 1,1-DCE = 1,1-dichloroethylene
8. Detected results shown in bold, detections above the MTCA Cleanup level highlighted in gray
9. U = not detected at a concentration exceeding laboratory reporting limit
10. J = estimated concentration.
11. Dangerous Waste Criteria = Washington State Dangerous Waste Maximum Concentration of Contaminants for the Toxicity
12. NE = not established

# Table F-7

## Groundwater Analytical Data for Shallow Water-Bearing Zone Wells
## Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Well Screen Elevation (ft) | Sample Area | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC |
| | | | | | Screening Level | 800 | 500 | 500 | 0.5 | 72 | 29 | 10,000 | 2.4 | 1 | 16 | 100 | 0.2 |
| **On Property** | | | | | | | | | | | | | | | | | |
| F5 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **120,000** | **1,100** | **700** | **5.20** | **4.2** |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | **21,000** | **1,200** | **1,000** | **1,000** | 200 U |
| | | | 03/28/17 | PES | Peristaltic | **234** | – | – | **0.515** | 0.727 U | 0.158 U | 0.316 U | 0.199 U | **0.241 J** | **516** | **4.31** | **90.6** |
| | | | 06/22/17 | PES | Peristaltic | 31.6 U | – | – | **0.374 J** | **0.708** | 0.158 U | 0.316 U | 0.199 U | **0.485** | **10.4** | **0.485 J** | **63.9** |
| F9 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **140,000** | **3,400** | **1,100** | **8.6** | **78** |
| | | | 06/16/15 | SES | Peristaltic | – | – | – | – | – | – | – | **3.7** | **1.8** | **680** | **12** | **74** |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | **15.0** | **6.6** | **840** | **13** | **75** |
| | | | 02/01/16 | SES | Peristaltic | – | – | – | – | – | – | – | **2.9** | 1 U | **1.3** | 1 U | **20** |
| | | | 03/27/17 | PES | Peristaltic | 31.6 U | – | – | **0.529** | **2.04** | 0.158 U | 0.316 U | 0.199 U | 0.153 U | **0.158 J** | **0.539** | 0.118 U |
| | | | 06/22/17 | PES | Peristaltic | 31.6 U | – | – | **0.471 J** | **1.70** | 0.158 U | 0.316 U | 0.199 U | 0.153 U | **6.10** | **0.485** | **3.57** |
| F13 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **2,900** | **280** | **370** | 100 U | **49** |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | **7,300** | **3,100** | **490** | 50 U | 10 U |
| | | | 11/18/13 | SES | Peristaltic | – | – | – | – | – | – | – | **67,000** | **6,600** | **3,200** | **85** | **48** |
| | | | 12/12/13 | SES | Peristaltic | – | – | – | – | – | – | – | **1,100** | **340** | **670** | 10 U | **20** |
| | | | 03/07/14 | SES | Peristaltic | – | – | – | – | – | – | – | **84** | **11** | **10** | 1 U | **0.36** |
| | | | 06/16/15 | SES | Peristaltic | – | – | – | – | – | – | – | **8.4** | 1 U | **1.8** | 1 U | **0.31** |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | 1 U | **2.0** | **210** | **2.3** | **4.1** |
| | | | 02/02/16 | SES | Peristaltic | – | – | – | – | – | – | – | **3.4** | 1 U | 1 U | 1 U | **0.97** |
| | | | 03/27/17 | PES | Peristaltic | 31.6 U | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | **0.218 J** | 0.152 U | **0.936** |
| | | | 06/22/17 | PES | Peristaltic | 31.6 U | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | **0.194 J** | 0.152 U | **1.32** |
| | | | 04/05/18 | PES | Peristaltic | 31.6 U | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | **20.3** | **0.346 J** | **0.375 J** | 0.152 U | **0.843** |
| G12 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **64,000** | **3,100** | **9,200** | **88** | **130** |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | **1,700** | **150** | 100 U | 100 U | 20 U |
| | | | 11/18/13 | SES | Peristaltic | – | – | – | – | – | – | – | **760** | **84** | **42** | 10 U | 2 U |
| | | | 03/27/17 | PES | Peristaltic | – | – | – | **0.243 J** | 0.412 U | 0.158 U | 0.316 U | 0.199 U | **0.233 J** | **95.9** | **1.97** | **28.4** |
| | | | 06/30/17 | PES | Peristaltic | – | – | – | **0.282 J** | 0.412 U | 0.158 U | 0.316 U | 0.199 U | **0.323 J** | **115** | **2.94** | **31.5** |
| G-MW2 | 31 to 21 | Property | 07/24/01 | GeoE | Peristaltic | – | – | – | **0.375** | **48.3 E** | **2.01** | **12.88** | **176,000** | **237 g** | **129 g** | **1.02** | **0.457** |
| | | | 01/29/09 | DOF | Peristaltic | **39,600 qp** | – | – | 20.0 U | 20.0 U | 20.0 U | **48.9** | **59,000 f** | **210** | **373** | **1.33** | 0.200 U |
| | | | 06/02/11 | SES | Peristaltic | **59,000 xy** | **200** | 250 U | 350 U | 1,000 U | 1,000 U | 3,000 U | **150,000** | 1000 U | 1000 U | 1000 U | 200 U |
| | | | 09/06/12 | SES | Peristaltic | – | – | – | 0.35 U | **12** | **1.1** | **4.7** | **150,000** | **320** | **260** | **1.4** | 0.2 U |
| | | Decommissioned | | | | | | | | | | | | | | | |
| J5 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **46,000** | **660** | 100 U | 100 U | 20 U |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | **48,000** | **13,000** | **1,400** | 100 U | 20 U |
| | | | 06/16/15 | SES | Peristaltic | – | – | – | – | – | – | – | **1,100** | **340** | **250** | **51** | **1.0** |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | **1,400** | **470** | **890** | **51** | **1.3** |
| | | | 02/02/16 | SES | Peristaltic | – | – | – | – | – | – | – | **1,500** | **110** | **280** | **14** | **0.31** |
| | | | 03/21/17 | PES | Peristaltic | – | – | – | **0.580** | 0.412 U | 0.158 U | 0.316 U | **285** | **78.5** | **253** | **1.73** | **29.6** |
| | | | 06/26/17 | PES | Peristaltic | – | – | – | **0.252 J** | **0.506** | 0.158 U | 0.316 U | **36.1** | **37.1** | **366** | **1.94** | **77.7** |
| | | | 04/05/18 | PES | Peristaltic | **207** | **–** | **–** | **0.638** | 0.412 U | 0.158 U | 0.316 U | **267** | **70.5** | **222** | **1.00** | **17.6** |
| J15 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | **4,100** | **220** | **580** | **6.8** | **20** |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | **10,000** | **1,100** | **680** | 100 U | 20 U |
| | | | 03/07/14 | SES | Peristaltic | – | – | – | – | – | – | – | **2,200** | **170** | **120** | 50 U | 10 U |
| | | Property | 06/16/15 | SES | Peristaltic | – | – | – | – | – | – | – | **9.0** | **12** | **310** | **8.8** | **3.1** |

## Table F-7

## Groundwater Analytical Data for Shallow Water-Bearing Zone Wells
## Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Well Screen Elevation (ft) | Sample Area | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC |
| | | | | | Screening Level | 800 | 500 | 500 | 0.5 | 72 | 29 | 10,000 | 2.4 | 1 | 16 | 100 | 0.2 |
| J15 | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | 3.6 | 1 U | 110 | 3.0 | 1.7 |
| (continued) | | | 02/02/16 | SES | Peristaltic | – | – | – | – | – | – | – | 2.4 | 1 U | 35 | 1 U | 0.39 |
| | | | 03/27/17 | PES | Peristaltic | – | – | – | 0.188 J | 0.495 J | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 43.3 | 1.18 | 6.99 |
| | | | 06/26/17 | PES | Peristaltic | – | – | – | 0.173 J | 0.459 J | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 39.8 | 1.06 | 6.30 |
| (duplicate) | | | 06/26/17 | PES | Peristaltic | – | – | – | 0.173 J | 0.551 | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 39.3 | 1.03 | 6.73 |
| | | | 04/05/18 | PES | Peristaltic | 41.2 J | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 12.8 | 0.358 J | 26.3 | 0.709 | 6.07 |
| K8 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | 8,700 | 330 | 1,400 | 5.6 | 6.3 |
| | | | 06/17/15 | SES | Peristaltic | – | – | – | – | – | – | – | 63 | 16 | 500 | 67 | 2 U |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | 360 | 82 | 43 | 3.2 | 0.44 |
| | | | 02/01/16 | SES | Peristaltic | – | – | – | – | – | – | – | 250 | 44 | 82 | 1.8 | 0.31 |
| | | | 03/21/17 | PES | Peristaltic | – | – | – | 0.239 J | 0.412 U | 0.158 U | 0.316 U | 82.5 | 22.0 | 123 | 0.680 | 0.461 J |
| | | | 06/26/17 | PES | Peristaltic | – | – | – | 0.246 J | 0.412 U | 0.158 U | 0.316 U | 67.9 | 28.7 | 140 | 0.750 | 0.456 J |
| | | | 04/05/18 | PES | Peristaltic | 156 | – | – | 0.251 J | 0.412 U | 0.158 U | 0.316 U | 229 | 26.3 | 104 | 0.750 | 1.45 |
| M15 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | 3,200 | 110 | 180 | 1.7 | 0.22 |
| | | | 10/24/13 | SES | Peristaltic | – | – | – | – | – | – | – | 56,000 | 1,100 | 770 | 50 U | 10 U |
| | | | 03/07/14 | SES | Peristaltic | – | – | – | – | – | – | – | 2,100 | 190 | 290 | 2.9 | 2.60 |
| | | | 06/16/15 | SES | Peristaltic | – | – | – | – | – | – | – | 58 | 44 | 76 | 2.7 | 1.1 |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | 48 | 29 | 110 | 2.3 | 0.74 |
| | | | 02/02/16 | SES | Peristaltic | – | – | – | – | – | – | – | 11 | 10 | 84 | 1.8 | 0.39 |
| | | | 03/27/17 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.733 | 32.7 | 0.561 | 13.2 |
| (duplicate) | | | 03/27/17 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.670 | 31.7 | 0.513 | 12.0 |
| | | | 06/26/17 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.233 J | 1.80 | 25.8 | 0.523 | 15.0 |
| | | | 04/05/18 | PES | Peristaltic | 31.6 U | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.563 | 8.89 | 0.300 J | 11.1 |
| N7 | – | Property | 07/19/13 | SES | Peristaltic | – | – | – | – | – | – | – | 640 | 50 | 18 | 1 U | 0.2 U |
| | | | 10/19/15 | SES | Peristaltic | – | – | – | – | – | – | – | 2,900 | 99 | 9.9 | 1 U | 0.2 U |
| | | | 02/02/16 | SES | Peristaltic | – | – | – | – | – | – | – | 230 | 79 | 1,700 | 2.9 | 0.92 |
| | | | 03/30/17 | PES | Peristaltic | – | – | – | 0.178 J | 0.412 U | 0.158 U | 0.316 U | 280 | 50.4 | 125 | 0.396 J | 0.310 J |
| | | | 06/27/17 | PES | Peristaltic | – | | | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 205 | 85.1 | 153 | 0.955 | 0.386 J |
| R-MW1 | 33.78 to 23.78 | Property | 10/24/92 | Roux | Unknown | 57 | 1,345 | 6,000 | 1 | 1 | 0.5 U | 0.5 U | 5 U | 5 U | – | 5 U | 100 |
| | | | 10/24/92 | DOF | Unknown | 53 | 26,000 | 12,000 | 0.61 | 0.83 | 0.50 U | 1.0 U | 4.2 | 0.82 | 12.0 c | – | 170 |
| | | | 10/24/92 | Roux | Unknown | 54 | 290 | 5,000 | 0.58 | 1 | 0.5 U | 0.5 U | 2.3 | 2 U | 14 | NA | 140 |
| | | | 01/29/09 | DOF | Peristaltic | 50.0 U | – | – | 0.500 U | 0.500 U | 0.500 U | 1.00 U | 17.1 | 4.26 | 1.60 | 0.200 U | 0.630 |
| | | | 06/02/11 | SES | Peristaltic | 100 U | 1,000 x | 740 | 0.35 U | 1 U | 1 U | 3 U | 7.9 | 2.7 | 1.9 | 1 U | 0.68 |
| | | | 09/05/12 | SES | Peristaltic | – | – | – | 0.35 U | 1 U | 1 U | 3 U | 16 | 3.6 | 2.1 | 1 U | 2.20 |
| | | | Decommissioned | | | | | | | | | | | | | | |
| R-MW2 | 36.74 to 26.74 | Property | 10/24/92 | Roux | Unknown | 4,200 | 34 | 2,000 | 684 | 17 | 301 | 403 | 5 U | 5 U | – | 5 U | 5 U |
| | | | 10/24/92 | DOF | Unknown | 4,000 | 16,000 | 25,000 | 310 | 0.50 | 140 | 180 | – | – | – | – | – |
| | | | 01/29/09 | DOF | Peristaltic | 657 | – | – | 0.500 U | 0.557 | 0.513 | 2.08 | 5.05 | 0.200 U | 0.200 U | 0.200 U | 0.200 U |
| | | | 06/02/11 | SES | Peristaltic | 1,700 | 3,100 | 290 x | 19 | 1 U | 1 U | 3 U | 1 U | 1 U | 1 U | 1 U | 0.2 U |
| | | | 09/04/12 | SES | Peristaltic | – | – | – | 0.35 U | 1 U | 1 U | 3 U | 1 U | 1 U | 1 U | 1 U | 0.2 U |
| | | | 03/21/17 | PES | Peristaltic | – | – | – | 0.272 J | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.341 J | 0.152 U | 0.522 |
| | | | 06/15/17 | PES | Peristaltic | – | – | – | 0.694 | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.682 | 0.152 U | 0.609 |
| | | | 04/02/18 | PES | Peristaltic | 38.0 U | – | – | 0.568 | 0.412 U | 0.158 U | 0.316 U | 0.866 | 0.620 | 2.48 | 0.152 U | 1.33 |
| R-MW3 | 34.74 to 24.74 | Property | 10/24/92 | Roux | Unknown | 87 | 3,015 | 1,200 | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 5 U | 5 U | – | 5 U | 5 U |

## Table F-7

## Groundwater Analytical Data for Shallow Water-Bearing Zone Wells
## Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Well Screen Elevation (ft) | Sample Area | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | Screening Level | 800 | | 500 | | 500 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| R-MW3 | | | 10/24/92 | DOF | Unknown | 50 | U | – | | – | | 0.50 | U | 0.50 | U | 0.50 | U | 1.0 | U | – | | – | | – | | – | | – | |
| (continued) | | | 01/29/09 | DOF | Peristaltic | 50.0 | U | – | | – | | 0.500 | U | 0.500 | U | 0.500 | U | 1.00 | U | **4.26** | | 0.200 | U | 0.200 | U | 0.200 | U | 0.200 | U |
| | | | 06/02/11 | SES | Peristaltic | 100 | U | **240** | x | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 09/04/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **6.4** | | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 03/21/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **1.38** | | **0.714** | | **0.575** | | 0.152 | U | 0.118 | U |
| | | | 06/28/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.834** | | **0.582** | | **0.735** | | 0.152 | U | **0.424** | **J** |
| | | | 04/04/18 | PES | Peristaltic | **33.7** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **16.4** | | **0.972** | | **1.35** | | 0.152 | U | **0.214** | **J** |
| **Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-6 | 31.2 to 16.2 | 800 Aloha St Parcel | 10/12/93 | Retec | Unknown | **150,000** | | – | | – | | **9,100** | | **6,800** | | **2,600** | | **7,300** | | – | | – | | – | | – | | – | |
| | | | 10/26/93 | Retec | Unknown | **100,000** | | – | | – | | **17,000** | | **14,000** | | **1,400** | | **11,000** | | – | | – | | – | | – | | – | |
| | | | 01/25/94 | Retec | Unknown | **66,000** | | – | | – | | **8,800** | | **4,600** | | **1,500** | | **8,100** | | – | | – | | – | | – | | – | |
| | | | 04/25/94 | Retec | Unknown | **120,000** | | – | | – | | **15,000** | | **7,200** | | **2,600** | | **13,300** | | – | | – | | – | | – | | – | |
| | | | 09/15/94 | Retec | Unknown | **56,000** | | – | | – | | **15,000** | | **2,000** | | **1,500** | | **7,100** | | – | | – | | – | | – | | – | |
| | | | 06/20/02 | Urban | Unknown | **8,500** | | – | | – | | **1,900** | | **14** | | **250** | | **53** | | – | | – | | – | | – | | – | |
| MW-7 | 26.09 to 16.09 | 800 Aloha St Parcel | 10/12/93 | Retec | Unknown | **75,000** | | – | | – | | **20,000** | | **22,000** | | **3,000** | | **15,000** | | – | | – | | – | | – | | – | |
| | | | 10/26/93 | Retec | Unknown | **74,000** | | – | | – | | **8,300** | | **7,400** | | **1,100** | | **8,300** | | – | | – | | – | | – | | – | |
| | | | 01/25/94 | Retec | Unknown | **53,000** | | – | | – | | **1,600** | | **2,700** | | **1,400** | | **5,100** | | – | | – | | – | | – | | – | |
| | | | 04/25/94 | Retec | Unknown | **140,000** | | – | | – | | **3,900** | | **7,400** | | **3,100** | | **14,100** | | – | | – | | – | | – | | – | |
| | | | 09/15/94 | Retec | Unknown | **66,000** | | – | | – | | **3,400** | | **2,700** | | **1,900** | | **7,700** | | – | | – | | – | | – | | – | |
| (duplicate) | | | 09/15/94 | Retec | Unknown | **77,000** | | – | | – | | **3,600** | | **3,000** | | **2,100** | | **8,700** | | – | | – | | – | | – | | – | |
| | | | 06/20/02 | Urban | Unknown | **8,400** | | – | | – | | **650** | | **37** | | **470** | | **150** | | – | | – | | – | | – | | – | |
| MW-8 | 28.69 to 14.19 | 800 Aloha St Parcel | 10/26/93 | Retec | Unknown | **280** | | – | | – | | **19** | | **1** | | 1 | U | **48** | | – | | – | | – | | – | | – | |
| | | | 01/25/94 | Retec | Unknown | **230** | **J** | – | | – | | **13** | | **0.7** | **J** | 1 | U | **4.5** | | – | | – | | – | | – | | – | |
| (duplicate) | | | 01/25/94 | Retec | Unknown | **210** | **J** | – | | – | | **12** | | **0.6** | **J** | 1 | U | **3.7** | | – | | – | | – | | – | | – | |
| | | | 04/25/94 | Retec | Unknown | 250 | U | – | | – | | **2.2** | | 1 | U | 1 | U | **1.7** | | – | | – | | – | | – | | – | |
| | | | 09/15/94 | Retec | Unknown | **210** | **J** | – | | – | | 1 | U | **0.5** | **J** | 1 | U | **1.6** | **J** | – | | – | | – | | – | | – | |
| (duplicate) | | | 09/15/94 | Retec | Unknown | **250** | | – | | – | | 1 | U | **0.5** | **J** | 1 | U | **1.7** | **J** | – | | – | | – | | – | | – | |
| | | | 06/21/02 | Urban | Unknown | 50 | U | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | – | | – | | – | | – | | – | |
| | | | 03/20/17 | PES | Peristaltic | – | | – | | – | | **0.145** | **J** | 0.412 | U | **0.175** | **J** | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| (dry) | | | 06/27/17 | PES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | | | 04/13/18 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.570** | | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW-9 | 33.81 to 18.81 | 8th Ave North ROW | 10/26/93 | Retec | Unknown | **210** | **J** | – | | – | | **9.5** | | **1.3** | | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 01/25/94 | Retec | Unknown | 250 | U | – | | – | | **5.7** | | **1.1** | | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 04/25/94 | Retec | Unknown | 250 | U | – | | – | | 0.001 | U | 1 | U | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 09/15/94 | Retec | Unknown | 250 | U | – | | – | | **3.5** | | **0.6** | **J** | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 06/20/02 | Urban | Unknown | 50 | U | – | | – | | 1 | U | 1 | U | 1 | U | 2 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U |
| | | | 06/02/11 | SES | Peristaltic | 100 | U | **150** | x | 250 | U | 1 | U | 1 | U | 1 | U | 3 | U | – | | – | | – | | – | | – | |
| | | | 09/04/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.61** | |
| | | | 12/16/13 | SES | Peristaltic | 100 | U | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 03/20/17 | PES | Peristaltic | **52.8** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.140** | **J** | 0.152 | U | **0.324** | **J** |
| | | | 06/20/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | **0.562** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.214** | **J** | 0.152 | U | 0.118 | U |
| (duplicate) | | | 06/20/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | **0.548** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.211** | **J** | 0.152 | U | 0.118 | U |
| | | | 04/05/18 | PES | Peristaltic | **32.9** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **1.58** | | 0.153 | U | **0.246** | **J** | 0.152 | U | **0.210** | **J** |
| MW-10 | 30.95 to 15.95 | 800 Aloha St Parcel | 10/26/93 | Retec | Unknown | 250 | U | – | | – | | 1 | U | **1.3** | | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 01/25/94 | Retec | Unknown | **190** | **J** | – | | – | | 1 | U | **3.2** | | 1 | U | 2 | U | – | | – | | – | | – | | – | |

# Table F-7

## Groundwater Analytical Data for Shallow Water-Bearing Zone Wells
## Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Well Screen Elevation (ft) | Sample Area | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | | Screening Level | 800 | | 500 | | 500 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| MW-10 (continued) | | | 04/25/94 | Retec | Unknown | 250 | U | – | | – | | 1 | U | **2.5** | | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 09/15/94 | Retec | Unknown | 250 | U | – | | – | | 1 | U | **0.9** | **J** | 1 | U | 2 | U | – | | – | | – | | – | | – | |
| | | | 06/20/02 | Urban | Unknown | 50 | U | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U |
| MW121 | 26.72 to 16.72 | 8th Ave North ROW | 12/26/13 | SES | Peristaltic | 100 | U | **200** | **x** | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **1.3** | |
| | | | 03/28/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.768** | | 0.152 | U | **5.82** | |
| | | | 06/20/17 | PES | Peristaltic | – | | – | | – | | **0.186** | **J** | **0.774** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **1.13** | | 0.152 | U | **7.68** | |
| | | | 04/05/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **2.93** | | 0.153 | U | **0.959** | | 0.152 | U | **6.45** | |
| MW125 | 28.55 to 13.55 | Valley St ROW | 12/26/13 | SES | Peristaltic | 100 | U | **300** | **x** | 250 | U | **1.4** | | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 03/22/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.285** | **J** | 0.153 | U | **0.341** | J | 0.152 | U | 0.118 | U |
| | | | 06/28/17 | PES | Bladder | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 04/06/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.580** | | 0.153 | U | **0.278** | **J** | 0.152 | U | 0.118 | U |
| MW-154 | 27.57 to 13.55 | Roy St ROW | 04/30/18 | PES | Bladder | **32.1** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **4.46** | | **0.230** | **J** | **1.77** | | 0.152 | U | **7.48** | |
| MW-155 | 24.05 to 13.55 | Roy Street ROW | 04/27/18 | PES | Peristaltic | 60.9 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **3.48** | | **0.334** | **J** | **0.466** | **J** | 0.152 | U | **0.447** | **J** |
| MW-159 | 22.39 to 13.55 | 8th Ave N ROW | 04/26/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.964** | | **0.358** | **J** | **1.09** | | 0.152 | U | 0.118 | U |
| MW-214 (duplicate) (dry) | – | Valley St ROW | 03/30/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 03/30/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 06/21/17 | PES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | | | 04/09/18 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.725** | | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| R-MW5 | 42.03 to 27.03 | Dexter Ave North ROW | 10/28/92 | Roux | Unknown | **93** | | **86** | | 1000 | U | 0.5 | U | **1** | | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U | – | | 0.5 | U |
| | | | 01/29/09 | DOF | Peristaltic | 50 | U | – | | – | | 0.500 | U | 0.500 | U | 0.500 | U | 1.00 | U | **0.800** | | 0.200 | U | 0.200 | U | 0.200 | U | 0.200 | U |
| | | | 06/02/11 | SES | Peristaltic | 100 | U | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 09/05/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 12/18/13 | SES | Peristaltic | 100 | U | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 03/23/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.338** | **J** | **0.186** | **J** | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 06/16/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.257** | **J** | **0.245** | **J** | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 04/11/18 | PES | Bladder | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.621** | | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| R-MW6 | 33.28 to 23.28 | 8th Ave North ROW | 10/28/92 | Roux | Unknown | 50 | U | 50 | U | 1000 | U | 0.5 | U | **2** | | 0.5 | U | **2** | | **4,500** | | **920** | | **2,600** | | – | | **240** | |
| | | | 11/03/92 | DOF | Unknown | – | | – | | – | | – | | – | | – | | – | | **690** | | **160** | | **620** | | – | | 40 | U |
| | | | 01/29/09 | DOF | Peristaltic | 50.0 | U | – | | – | | 0.500 | U | 0.500 | U | 0.500 | U | 1.00 | U | **1.78** | | 0.200 | U | **2.64** | | 0.200 | U | **2.75** | |
| | | | 05/03/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **1.2** | | 1 | U | **2.8** | |
| | | | 06/02/11 | SES | Peristaltic | 100 | U | **120** | **x** | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **2.1** | |
| | | | 09/05/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | | 03/21/17 | PES | Peristaltic | **42.8** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **1.08** | | **3.17** | | **20.0** | | **0.242** | **J** | **8.65** | |
| | | | 06/20/17 | PES | Peristaltic | **38.5** | | – | | – | | **0.167** | **J** | **0.619** | | 0.158 | U | 0.316 | U | **1.19** | | **0.878** | | **37.3** | | **0.445** | **J** | **43.9** | |
| | | | 04/06/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **1.85** | | **2.24** | | **19.4** | | **0.277** | **J** | **26.9** | |
| SCL-MW101 | – | Alley Between 8th & 9th Ave N | 03/28/17 | PES | Peristaltic | – | | – | | – | | **6.74** | | 0.624 | U | **0.598** | | **2.08** | | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 06/14/17 | PES | Peristaltic | – | | – | | – | | **18.6** | | **1.68** | | **17.1** | | **3.50** | | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 04/06/18 | PES | Peristaltic | – | | – | | – | | **10.6** | | **1.24** | | **11.7** | | **3.32** | | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| SCL-MW105 | – | Alley Between 8th & 9th Ave N | 03/28/17 | PES | Peristaltic | – | | – | | – | | **257** | | **16.3** | | **26.5** | | **33.9** | | 0.995 | U | 0.765 | U | 0.466 | U | 0.760 | U | 0.590 | U |
| | | | 06/15/17 | PES | Peristaltic | – | | – | | – | | **208** | | **14.3** | | **109** | | **40.8** | | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | | 04/06/18 | PES | Peristaltic | – | | – | | – | | **181** | | **12.1** | | **26.6** | | **28.4** | | 1.99 | U | 1.53 | U | 0.933 | U | 1.52 | U | 1.18 | U |
| SCS-2 | – | 800 Aloha St Parcel | 03/20/17 | PES | Peristaltic | **1,660** | | – | | – | | **51.8** | | **9.54** | | **155** | | **181** | | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

# Table F-7

## Groundwater Analytical Data for Shallow Water-Bearing Zone Wells
## Former American Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Well Screen Elevation (ft) | Sample Area | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC |
| | | | | | **Screening Level** | **800** | **500** | **500** | **0.5** | **72** | **29** | **10,000** | **2.4** | **1** | **16** | **100** | **0.2** |
| SCS-2 (continued) | | | 06/12/17 | PES | Peristaltic | **901** | – | – | **58.9** | **4.49** | **141** | **70.4** | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 U |
| | | | 04/13/18 | PES | Peristaltic | – | – | – | **44.3** | **5.18** | **37.3** | **47.7** | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 U |
| SMW-3 | – | Valley St ROW | 03/30/17 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 UJ |
| | | | 06/21/17 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 U |
| | | | 04/09/18 | PES | Peristaltic | – | – | – | 0.0896 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 U |
| **Decommissioned Wells** | | | | | | | | | | | | | | | | | |
| R-MW4 | 25.94 to 10.94 | Roy St ROW | 10/24/92 | Roux | Unknown | **410** | **201** | 1000 U | 0.5 U | **2** | **1** | **4** | **814** | **64** | – | 5 U | 5 U |
| | | | 10/24/92 | DOF | Unknown | **640** | – | – | 0.5 U | **1.8** | 0.5 U | **3.1** | **31** | **2.8** | 2.0 U | – | 2.0 U |
| | | | Decommissioned before 2009 | | | | | | | | | | | | | | |
| MW-1 | – | 800 Aloha St Parcel | 03/22/93 | EPJ | Bailer | **5,100** | 500 U | 1000 U | **10,000** | **270** | **480** | **427** | – | – | – | – | – |
| | | | 06/17/93 | Retec | Unknown | – | – | – | **20,000** | **14,000** | **840** | **6,700** | – | – | – | – | – |
| | | | Decommissioned on October 12, 1993 | | | | | | | | | | | | | | |
| MW-2 | – | 8th Ave North ROW | 03/22/93 | EPJ | Bailer | **650** | 500 U | 1000 U | **100** | **42** | **24** | **67** | – | – | – | – | – |
| | | | 06/17/93 | Retec | Unknown | – | – | – | **28** | **7.2** | 1 U | 2 U | **170** | **1,400** | **9,300** | **25** | **1,100** |
| | | | Decommissioned on October 12, 1993 | | | | | | | | | | | | | | |
| MW-3 | – | 800 Aloha St Parcel | 03/22/93 | EPJ | Bailer | **27,000** | 500 U | 1000 U | **1,500** | **3,300** | **690** | **3,500** | – | – | – | – | – |
| | | | 06/17/93 | Retec | Unknown | – | – | – | **4,800** | **21,000** | **1,900** | **12,300** | – | – | – | – | – |
| | | | Decommissioned on October 12, 1993 | | | | | | | | | | | | | | |
| MW-4 | – | 800 Aloha St Parcel | 03/22/93 | EPJ | Bailer | **940** | 500 U | 1000 U | **82** | **390** | **39** | **108** | – | – | – | – | – |
| | | | 06/17/93 | Retec | Unknown | – | – | – | 1 U | 1 U | 1 U | 2 U | – | – | – | – | – |
| | | | Decommissioned on October 12, 1993 | | | | | | | | | | | | | | |
| MW-5 | – | 8th Ave North ROW | 03/22/93 | EPJ | Bailer | **670** | 500 U | 1000 U | **49** | **140** | **9.8** | **80** | – | – | – | – | – |
| | | | 06/17/93 | Retec | Unknown | – | – | – | 1 U | 1 U | 1 U | 2 U | – | – | – | – | – |
| | | | Decommissioned on October 12, 1993 | | | | | | | | | | | | | | |
| | | | | | Number of Analytes Measured | 91 | 25 | 25 | 136 | 136 | 136 | 136 | 142 | 142 | 138 | 136 | 142 |
| | | | | | Number of Analytes Detected | 47 | 16 | 8 | 64 | 59 | 35 | 41 | 89 | 77 | 94 | 51 | 80 |
| | | | | | Frequency of Detection | 52% | 64% | 32% | 47% | 43% | 26% | 30% | 63% | 54% | 68% | 38% | 56% |
| | | | | | Maximum Detection | 150,000 | 26,000 | 25,000 | 20,000 | 22,000 | 3,100 | 15,000 | 176,000 | 13,000 | 9,300 | 1,000 | 1,100 |
| | | | | | Minimum Detection | 31.6 U | 34.0 | 250 U | 0.001 U | 0.412 U | 0.158 U | 0.316 U | 0.199 U | 0.153 U | 0.0933 U | 0.152 U | 0.118 U |

Notes:

VOCs analyzed by EPA Methods 8015, 8020, 8021B, 8240, 8260B, or 8260C or by Purge and Trap Gas Chromatogram/Mass Spectrometry or EPA Method 601, 8010S, 8240, 8260B, or 8260C.

* = Monitoring well was installed at a 25 degree angle from the vertical point of penetration.

(dup) = duplicate

cDCE = cis-1,2-dichloroethene

DOF = Dalton, Olmsted & Fuglevand, Inc.

DRO = diesel-range organics

GeoE = GeoEngineers, Inc.

GRO = gasoline-range organics

MTCA = Washington State Model Toxics Control Act

ORO = oil-range organics

PCE = perchloroethylene (tetrachloroethene)

Roux = Roux Associates

SES = SoundEarth Strategies, Inc.

TCE = trichloroethene

tDCE = trans-1,2-dichloroethene

VC = vinyl chloride

WAC = Washington Administrative Code

WW = Windward Environmental LLC

Laboratory and Results Notes:

Detected results shown in bold, detections above the screening level hightlighted in gray

– = Not analyzed or results not available

B = the same analyte is found in the associated blank

c = Reported as total 1,2,-DCE (sum of cis,-1,2- and trans,1-2-DCE isomers)

E = Estimated value. The reported range exceeds the calibration range of the analysis

f = Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank

g = Estimated value. The reported range exceeds the calibration range of the analysis

J = the identification of the analyte is acceptable; the reported value is an estimate

qp = Hydrocarbon result partly due to individual peak(s) in quantitation range

U = not detected at or above the laboratory method detection limit (MDL)

x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation

y = The GRO result in the sample is due to a pattern of peaks that is consistent with the chlorinated volatiles detected by the 8260C analysis

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | 800 | | 500 | | 500 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| **Intermediate A Water-Bearing Zone, On Property** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G-MW1 | The Property | 07/24/01 | Geo | Peristaltic | – | | – | | – | | **0.449** | | **17.6** | **E** | **0.798** | | **5.52** | | **85,500** | | **1,130** | | **23.3** | **g** | **0.956** | | **74.5** | **g** |
| (9.01 to 4.01) | | 01/29/09 | DOF | Peristaltic | **41,300** | **qp** | – | | – | | 20.0 | U | 20.0 | U | **28.6** | | **55.1** | | **78,400** | **f** | **1,160** | | **34.4** | | **1.49** | | 0.200 | U |
| | | 06/03/11 | SES | Peristaltic | **29,000** | **x** | **92** | **x** | 250 | U | – | | – | | – | | – | | **78,000** | | **1,100** | | **22** | | – | | **33** | |
| | | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | **7.4** | | 1 | U | **1.1** | | **66,000** | | **1,100** | | **32** | | **1.5** | | **35** | |
| | (duplicate) | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | **7.6** | | 1 | U | **1.0** | | **64,000** | | **1,100** | | **30** | | **1.4** | | **33** | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G-MW3 | The Property | 07/24/01 | Geo | Peristaltic | – | | – | | – | | **0.524** | | **6.93** | **E** | **0.459** | | **2.10** | | **47,700** | | **385** | **g** | 0.200 | U | **3.71** | | **42.5** | **g** |
| (13.55 to 3.55) | | 12/10/04 | DOF | Bailer | – | | – | | – | | 2 | U | **7** | | 2 | U | **2** | | **220,000** | | **1,200** | | **570** | | **6** | | **19** | |
| | | 01/29/09 | DOF | Peristaltic | **26,600** | **qp** | – | | – | | 12.5 | U | 12.5 | U | 12.5 | U | 25.0 | U | **64,000** | **f** | **1,580** | | **4,050** | | **13.9** | | 0.200 | U |
| | | 06/02/11 | SES | Peristaltic | **19,000** | **xy** | **210** | **x** | 250 | U | 350 | U | 1,000 | U | 1,000 | U | 3,000 | U | **33,000** | | **1,400** | | **1,500** | | 1000 | U | **290** | |
| | | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | **1.5** | | 1 | U | 3 | U | **31,000** | | **1,200** | | **1,600** | | **5.9** | | **290** | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW131 | Property | 03/27/17 | SES | Peristaltic | **91.9** | **J** | – | | – | | **0.199** | **J** | **0.462** | **J** | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **243** | | **0.981** | | **804** | |
| (-4.61 to -14.61) | | 06/20/17 | PES | Peristaltic | 31.6 | U | – | | – | | 0.448 | U | 2.06 | U | 0.790 | U | 1.58 | U | 0.995 | U | 0.765 | U | **2.55** | | 0.760 | U | **435** | |
| | | 04/16/18 | PES | Peristaltic | 55.3 | U | – | | – | | **0.142** | **J** | 0.412 | U | 0.158 | U | 0.316 | U | **7.05** | | **3.25** | | **10.4** | | **0.276** | **J** | **18.0** | |
| MW-149 | Property | 04/10/18 | PES | Peristaltic | **11,700** | **z** | – | | – | | 44.8 | U | 2.06 | U | **0.813** | **J** | **1.64** | **J** | **19,200** | | **8,050** | | **10,500** | | **29.8** | | **863** | |
| (0.66 to -9.34) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-151 | Property | 04/10/18 | PES | Peristaltic | 74.6 | U | – | | – | | **0.253** | **J** | 0.412 | UJ | 0.158 | UJ | 0.316 | U | **1.13** | | **0.310** | **J** | **59.1** | **J-** | **0.388** | **J-** | **11.4** | |
| (4.94 to -5.06) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Intermediate A Water-Bearing Zone, Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-5 | South of Mercer St ROW | 11/17/97 | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | **1.1** | | ND | | ND | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-7 | Westlake Ave North ROW | 11/17/97 | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-8 | Roy St ROW | 06/24/97 | B&V | Bailer | 200 | U | 500 | U | 1000 | U | **1.8** | | **1.3** | | 1.0 | U | 1.0 | U | **11,000** | | **1,500** | | **4,200** | | **14** | | **280** | |
| (13.69 to 3.69) | | 01/29/09 | DOF | – | **499** | | – | | – | | **0.694** | | 0.500 | U | 0.500 | U | 1.00 | U | **896** | **f** | **258** | | **441** | | **2.45** | | **1.48** | |
| | | 05/03/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **510** | | **120** | | **110** | | 1 | U | **0.27** | |
| | | 06/02/11 | SES | Peristaltic | **130** | **xy** | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | **170** | | **59** | | **44** | | 1 | U | 0.2 | U |
| | | 09/05/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **200** | | **41** | | **28** | | 1 | U | 0.2 | U |
| | | 12/29/13 | SES | Bladder | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **200** | | **38** | | **24** | | 1 | U | 0.2 | U |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **170** | | **40** | | **37** | | 10 | U | **2.0** | |
| | | 03/22/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **30.4** | | **4.95** | | **3.10** | | 0.152 | U | 0.118 | U |
| | | 06/14/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **26.0** | | **8.57** | | **12.6** | | **0.155** | **J** | 0.118 | U |
| | | 04/11/18 | PES | Peristaltic | 40.9 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **33.7** | **J** | **6.13** | **J** | **4.64** | **J** | 0.152 | U | 0.118 | U |
| | (dup) | 04/11/18 | PES | Peristaltic | 41.5 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **46.8** | **J** | **8.41** | **J** | **6.28** | **J** | 0.152 | U | 0.118 | U |
| BB-8A | Roy St ROW | 01/29/09 | DOF | Peristaltic | **669** | | – | | – | | 0.500 | U | 0.500 | U | 0.500 | U | 1.00 | U | **1,290** | **f** | **285** | | **549** | | **2.96** | | **3.86** | |
| | | 05/03/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **810** | | **180** | | **140** | | **1.6** | | **0.78** | |
| | | 06/02/11 | SES | Peristaltic | **380** | **xy** | 50 | U | 250 | U | 3.5 | U | 10 | U | 10 | U | 30 | U | **710** | | **170** | | **170** | | 10 | U | 2 | U |

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | **800** | | **500** | | **500** | | **0.5** | | **72** | | **29** | | **10,000** | | **2.4** | | **1** | | **16** | | **100** | | **0.2** | |
| BB-8A | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-12 | 9th Ave North ROW | 05/19/98 | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | **540** | | ND | | **380** | |
| | | 05/02/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-12A | 9th Ave North ROW | 05/02/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GEI-MW-1 | 739 9th Ave N | 09/06/14 | Geo | Peristaltic | 50.0 | U | 50.0 | U | 100 | U | 1.00 | U | 1.00 | U | – | | 1.00 | U | **0.250** | | **0.240** | | 1.00 | U | 0.500 | U | 0.200 | U |
| GEI-MW-2 | 739 9th Ave N | 09/06/14 | Geo | Peristaltic | **28.9** | | 50.0 | U | 100 | U | **14.1** | | **4.44** | | – | | 1.00 | U | 1.00 | U | **0.410** | | 1.00 | U | 0.500 | U | **1.34** | |
| GEI-MW-3 | 739 9th Ave N | 09/06/14 | Geo | Peristaltic | 50.0 | U | 50.0 | U | 100 | U | 1.00 | U | **9.03** | | – | | 1.00 | U | 1.00 | U | **0.610** | | 1.00 | U | 0.500 | U | **3.14** | |
| GEI-1 | Block 37 | 03/24/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| (1.15 to -8.85) | | 06/13/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | **0.244** | **J** | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW107 | 8th Ave North ROW | 12/21/12 | SES | Peristaltic | **240,000** | **xy** | **190** | **x** | 250 | U | 3.5 | U | 10 | U | 10 | U | 30 | U | **47,000** | | **2,800** | | **5,100** | | **41** | | **200** | |
| (8.81 to -1.18) | (duplicate) | 12/21/12 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **50,000** | | **3,000** | | **5,200** | | **44** | | **270** | |
| | | 12/16/13 | SES | Peristaltic | – | | – | | – | | 0.37 | U | **1.8** | | 1 | U | **3.3** | | **32,000** | | **2,400** | | **4,000** | | **34** | | **76** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **1,900** | | **5,000** | | **5,000** | | 100 | U | **40** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **2,300** | | **5,100** | | **3,600** | | **60** | | **27** | |
| | | 11/10/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **620** | | **3,800** | | **4,400** | | **54** | | **31** | |
| | | 12/11/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **1200** | | **4200** | | **4,200** | | **57** | | **22** | |
| | | 01/08/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **1,000** | | **3,600** | | **3,900** | | **50** | | **20** | |
| | | 02/01/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **61** | | **220** | | **10,000** | | **33** | | **73** | |
| | | 03/27/17 | PES | Peristaltic | – | | – | | – | | **0.204** | **J** | **0.690** | **J** | 0.158 | U | 0.316 | U | **0.224** | **J** | **0.370** | **J** | **6.82** | | **14.0** | | **34.5** | |
| | | 06/19/17 | PES | Peristaltic | – | | – | | – | | **0.238** | **J** | **0.700** | | 0.158 | U | 0.316 | U | 0.199 | U | **0.290** | **J** | **7.29** | | **12.6** | | **15.0** | |
| | | 04/09/18 | PES | Peristaltic | – | | – | | – | | **0.193** | **J** | 0.412 | U | 0.158 | U | 0.316 | U | **0.879** | **J-** | **0.581** | **J-** | **72.1** | **J-** | **10.5** | | **123** | |
| MW108 | Alley Between 8th and | 12/21/12 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **3.4** | | **1.8** | | **400** | | **2.1** | | **210** | **pr** |
| (-7.22 to -17.22) | 9th Ave North | 12/17/13 | SES | Peristaltic | – | | – | | – | | **1.9** | | 1 | U | 1 | U | 3 | U | **3.8** | | **4.6** | | **360** | | **3.6** | | **150** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **4.0** | | **11** | | **370** | | **3.5** | | **260** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **3.0** | | **6.4** | | **220** | | **1.8** | | **140** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **15** | | **7.9** | | **290** | | **1.8** | | **180** | |
| | | 03/28/17 | PES | Peristaltic | – | | – | | – | | **1.59** | | 0.479 | U | 0.158 | U | 0.316 | U | **73.1** | | **12.5** | | **278** | | **0.899** | | **52.3** | |
| | | 06/27/17 | PES | Bladder | – | | – | | – | | **1.26** | | 0.479 | U | 0.158 | UJ | 0.316 | U | **194** | | **22.1** | | **165** | | **0.748** | | **52.8** | |
| | | 04/06/18 | PES | Peristaltic | – | | – | | – | | **4.00** | | **0.599** | | 0.158 | UJ | 0.316 | U | **1,970** | | **284** | | **1,030** | | **7.13** | | **217** | |
| | (duplicate) | 04/06/18 | PES | Peristaltic | – | | – | | – | | **3.83** | | **0.597** | | 0.158 | UJ | 0.316 | U | **1,980** | | **287.0** | | **1,020** | | **7.91** | | **231** | |
| MW109 | Alley Between 8th and | 12/21/12 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **91** | | **64** | | **18** | | 1 | U | **1.5** | |
| (-0.03 to -10.03) | 9th Ave North | 12/17/13 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **4.0** | | **18** | | **310** | | 1 | U | **27** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **370** | | **890** | | **520** | | **1.2** | | **26** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **230** | | **790** | | **400** | | 20 | U | **22** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **34** | | **330** | | **270** | | 1 | U | **19** | |
| | | 03/29/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.198** | **J** | **12.6** | | 0.152 | U | **3.49** | |
| | | 06/27/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | UJ | 0.316 | U | **9.69** | **J** | **1.17** | | **163** | | **1.17** | | **6.06** | |

## Table F-8

### Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
### Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | 800 | 500 | 500 | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| MW109 | | 04/06/18 | PES | Peristaltic | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 1.99 | UJ | **210** | | **629** | | **3.34** | | **42.2** | |
| MW110 | Alley Between 8th and | 12/21/12 | SES | Bladder | – | – | – | – | | – | | – | | – | | **1,100** | | **220** | | **470** | | **3.0** | | **33** | |
| (4.67 to -5.33) | 9th Ave North | 12/19/13 | SES | Peristaltic | – | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | **930** | | **240** | | **840** | | **3.9** | | **31** | |
| | | 04/22/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **1,000** | | **210** | | **340** | | **2.4** | | **1** | |
| | | 06/17/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **1,000** | | **200** | | **470** | | 10 | U | **12** | |
| | | 10/20/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **890** | | **180** | | **380** | | **2.2** | | **13** | |
| | | 02/01/16 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **1,300** | | **290** | | **460** | | **3.0** | | **1.1** | |
| | | 03/23/17 | PES | Peristaltic | – | – | – | **0.330** | **J** | 0.412 | U | 0.158 | U | 0.316 | U | **1,070** | | **389** | | **644** | | **4.72** | | **1.45** | |
| | | 06/27/17 | PES | Bladder | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | UJ | 0.316 | U | **259** | | **176** | | **1,120** | | **2.66** | | **152** | |
| | | 04/09/18 | PES | Bladder | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **375** | **J-** | **253** | **J-** | **675** | **J-** | **3.72** | | **3.54** | |
| MW114 | SDOT property south | 12/21/12 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **1,400** | | **290** | | **260** | | 1 | U | **14** | |
| (10.84 to 0.84) | of Roy Street | 12/18/13 | SES | Peristaltic | – | – | – | 17 | U | 50 | U | 50 | U | 150 | U | **8,400** | | **1,300** | | **640** | | 50 | U | **22** | |
| | | Destroyed | | | | | | | | | | | | | | | | | | | | | | | |
| MW115 | 9th Ave North ROW | 12/13/12 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **15** | | **1.1** | | **3.0** | | 1 | U | **2.6** | |
| (-0.86 to -10.86) | | 12/21/12 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | **3.0** | | **38** | | 1 | U | **16** | |
| | | 12/19/13 | SES | Peristaltic | – | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.75** | |
| | | 04/21/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | **17** | | **170** | | 1 | U | **20** | |
| | | 06/25/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **6.2** | |
| | | 10/27/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **0.31** | |
| | | 02/03/16 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **2.3** | |
| | | 03/22/17 | PES | Peristaltic | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.643** | | 0.152 | U | **15.7** | |
| | | 06/22/17 | PES | Bladder | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.523** | | 0.152 | U | **8.45** | |
| | | 04/11/18 | PES | Peristaltic | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.272** | **J** | 0.152 | U | **5.81** | |
| MW116 | 9th Ave North ROW | 12/07/12 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **6.8** | | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-3.64 to -13.64) | | 12/21/12 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | **2.7** | | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/19/13 | SES | Peristaltic | – | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 06/25/15 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 10/27/15 | SES | Perstaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 02/03/16 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 03/21/17 | PES | Peristaltic | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/16/17 | PES | Bladder | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.303** | **J** | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/11/18 | PES | Peristaltic | – | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW117 | Dexter Ave North ROW | 02/08/13 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (16.90 to 1.90) | | 12/18/13 | SES | Peristaltic | 100 | U | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Destroyed | | | | | | | | | | | | | | | | | | | | | | | |
| MW118 | Mercer St ROW | 03/25/13 | SES | Peristaltic | – | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (12.91 to 2.91) | | 12/18/13 | SES | Peristaltic | 100 | U | 50 | U | 250 | U | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Destroyed | | | | | | | | | | | | | | | | | | | | | | | |

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | 800 | | 500 | | 500 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| MW119 | 9th Ave North ROW | 03/25/13 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **3.3** | | 1 | U | 0.2 | U |
| (2.35 to -7.65) | | 12/19/13 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | **2.5** | | 1 | U | **0.76** | |
| | | 04/21/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **34** | | **42** | | **50** | | 1 | U | **3.1** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **4.9** | | **7.1** | | **52** | | 1 | U | **2.7** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **15** | | **22** | | **74** | | 1 | U | **0.45** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **7.3** | | **24** | | **100** | | 1 | U | **0.45** | |
| | | 03/29/17 | PES | Peristaltic | – | | – | | – | | **0.139** | | 0.412 | U | 0.158 | U | 0.316 | U | **5.47** | | **10.7** | | **42.9** | | **0.334** | **J** | **0.272** | **J** |
| | | 06/28/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | **0.726** | | 0.158 | U | **0.562** | **J** | **19.0** | | **12.4** | | **5.99** | | **0.167** | **J** | 0.118 | U |
| | | 04/05/18 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **2.14** | | **3.02** | | **18.3** | | **0.203** | **J** | 0.118 | U |
| MW120 | 8th Ave North ROW | 12/19/13 | SES | Peristaltic | 100 | U | 50 | U | **440** | **x** | 0.35 | U | 1 | U | 1 | U | 3 | U | **2.8** | | **2.3** | | **19** | | 1 | U | **9.6** | |
| (0 to -10) | | 06/16/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **4.3** | | 1 | U | 0.2 | U |
| | | 10/20/15 | SES | Perstaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | **1.1** | | **5.2** | | 1 | U | **0.94** | |
| | | 02/01/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **1.3** | | **1.6** | | **6.7** | | 1 | U | **1.1** | |
| | | 03/28/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.458 | U | 0.158 | U | 0.316 | U | **13.9** | | **5.81** | | **18.4** | | 0.152 | U | **0.871** | |
| | | 06/28/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **18.0** | | **6.97** | | **16.0** | | 0.152 | U | **0.988** | |
| | | 04/09/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | | 0.153 | U | **0.811** | | 0.152 | U | **0.118** | U |
| MW127 | 8th Ave North ROW | 01/03/14 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.29** | |
| (-0.96 to -10.96) | | 01/13/14 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.30** | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-142 | 8th Ave North ROW | 04/27/18 | PES | Peristaltic | 49.3 | U | – | | – | | **0.514** | | 0.412 | U | 0.158 | U | 0.316 | U | **0.523** | | **1.40** | | **46.1** | | **0.474** | **J** | **17.2** | |
| (2.44 to -7.56) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-144 | 8th Ave North ROW | 04/27/18 | PES | Peristaltic | **364** | **J** | – | | – | | 0.0896 | U | **1.40** | | 0.158 | U | 0.316 | U | **1.86** | | **3.31** | | **662** | | **4.65** | | **888** | |
| (3.87 to -6.13) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-146 | 8th Ave North ROW | 04/30/18 | PES | Bladder | **597** | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **3.56** | | **48.4** | | **900** | | **6.12** | | **2,100** | |
| (12.94 to 2.94) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-156 | 8th Ave North ROW | 04/26/18 | PES | Peristaltic | **1,690** | **z** | – | | – | | **0.283** | **J** | **0.479** | **J** | 0.158 | U | 0.316 | U | 9.95 | U | **581** | | **2,850** | | **9.97** | | **407** | |
| (2.04 to -7.96) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Intermediate B Water-Bearing Zone, On Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW130 | Property | 03/03/16 | SES | Bladder | – | | – | | – | | – | | – | | – | | – | | **6,200** | | **430** | | **300** | | 1 | U | **38** | |
| (-30.88 to -40.88) | | 03/29/17 | PES | Bladder | **8,890** | **xy** | – | | – | | 1.79 | U | 8.24 | U | 3.16 | U | 6.32 | U | **721** | | **830** | | **7,880** | | **39.3** | | **186** | |
| | | 06/30/17 | PES | Bladder | **10,300** | **Jz** | – | | – | | 0.896 | U | 4.12 | U | 1.58 | U | 3.16 | U | **6,760** | **J** | **4,020** | | **20,100** | | **55.6** | | **597** | |
| | (duplicate) | 06/30/17 | PES | Bladder | **15,000** | **Jz** | – | | – | | 0.896 | U | 4.12 | U | 1.58 | U | 3.16 | U | **11,100** | **J** | **5,310** | | **21,300** | | **57.3** | | **549** | |
| | | 05/21/18 | PES | Bladder | **19,700** | **z** | – | | – | | **0.403** | **J** | **1.37** | | **0.227** | **J** | **1.12** | **J** | **13,500** | | **7,400** | | **29,500** | | **114** | | **1,650** | |
| MW-132 | Property | 09/25/17 | PES | Bladder | 95.9 | U | – | | – | | 0.448 | U | 2.06 | U | 0.790 | U | 1.58 | U | 0.995 | U | **1.95** | **J** | **196** | | 0.760 | U | **1.76** | **J** |
| (-29.90 to -39.90) | | 04/26/18 | PES | Bladder | **2,630** | **z** | – | | – | | **0.422** | **J** | 0.412 | U | 0.158 | U | 0.32 | U | **2,830** | | **840** | | **3,300** | | **16.3** | | **10.2** | |
| MW-134 | Property | 09/22/17 | PES | Bladder | – | | – | | – | | 0.448 | U | 2.06 | U | 0.790 | U | 1.58 | U | 0.995 | U | 0.765 | U | **86.2** | | 0.760 | U | **229** | |
| (-38.55 to -48.55) | | 04/16/18 | PES | Peristaltic | 42.1 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **1.49** | | 0.153 | U | **0.287** | **J** | 0.152 | U | **68.6** | |

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | 800 | | 500 | | 500 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| MW-135 | Property | 09/25/17 | PES | Bladder | **10,900** | **z** | – | | – | | 8.96 | U | 41.2 | U | 15.8 | U | 31.6 | U | **10,400** | | **2,480** | | **16,100** | | 15.2 | U | **82.0** | **J** |
| (-30.89 to -40.89) | | 04/25/18 | PES | Peristaltic | **347,000** | **z** | – | | – | | **0.434** | **J** | **3.09** | | **0.484** | **J** | **2.61** | | **75,800** | | **7,890** | | **27,700** | | **30.7** | | **989** | |
| MW-136 | Property | 09/25/17 | PES | Bladder | 55.2 | U | – | | – | | **0.332** | **J** | 0.412 | U | 0.158 | U | 0.316 | U | **15.4** | | **10.7** | | **18.7** | | 0.152 | U | 0.118 | U |
| (-32.73 to -42.73) | | 04/16/18 | PES | Submersible | **256** | | – | | – | | **0.260** | **J** | **1.83** | | **4.83** | | **25.9** | | **2.59** | | **0.365** | **J** | **4.73** | | 0.152 | U | **8.57** | |
| MW-139 | Property | 09/25/17 | PES | Bladder | 62.2 | U | – | | – | | 0.0896 | U | **0.516** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **1.42** | | 0.152 | U | **0.246** | **J** |
| (-30.19 to -40.19) | | 04/25/18 | PES | Peristaltic | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.175** | **J** | 0.152 | U | 0.118 | U |
| MW-150 | Property | 04/10/18 | PES | Peristaltic | **7,040** | **z** | – | | – | | 22.4 | U | **1.63** | | 39.5 | U | 79.0 | U | **2,500** | | **3,200** | | **9,710** | | **21.1** | | **766** | |
| (-13.25 to -23.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-152 | Property | 04/10/18 | PES | Peristaltic | **40,600** | **z** | – | | – | | 224 | U | 8.24 | U | **3.27** | **J** | 790 | U | **67,300** | | **6,550** | | **35,300** | | **42.1** | | **3,660** | |
| (-10.15 to -20.15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-MW-03 | Property | 02/03/12 | WW | Bladder | – | | – | | – | | 20 | U | 20 | U | 20 | U | 60 | U | **5,300** | | **220** | | **160** | | 20 | U | 20 | U |
| (-30.77 to -40.77) | | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **13** | | **2.6** | | **20** | | 1 | U | **120** | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-MW-04* | Property | 02/03/12 | WW | Bladder | – | | – | | – | | 20 | U | 20 | U | 20 | U | 60 | U | **5,400** | | **160** | | **54** | | 20 | U | 20 | U |
| (-32.47 to -41.47) | | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **460** | | **440** | | **1,900** | | **4.0** | | **630** | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Intermediate B Water-Bearing Zone, Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-10 | Dexter Ave North ROW | 11/13/97 | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| BB-13 | Westlake Ave North ROW | 1998 | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | **2.6** | | ND | | **1.1** | |
| | | 05/02/10 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BB-14 | North Valley St ROW | 1998 | B&V | Bailer | 300 | U | 630 | U | 630 | U | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW111 | Alley Between 8th and | 12/21/12 | SES | Bladder | – | | – | | – | | – | | – | | – | | – | | **110** | | **32** | | **37** | | 1 | U | **1.8** | |
| (-33.52 to -43.52) | 9th Ave North | 12/17/13 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | **4.7** | | 1 | U | **17** | |
| | | 04/22/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **1.7** | | 1 | U | **18** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **1.5** | | 1 | U | **20** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **8.2** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | **2.3** | | 1 | U | **5.8** | |
| | | 03/23/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **1.40** | | 0.152 | U | **5.22** | |
| | | 06/14/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.408** | **J** | **1.24** | | 0.152 | U | **3.22** | |
| | | 04/06/18 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.618** | | 0.153 | U | **16.5** | | 0.152 | U | **121** | |
| MW112 | Dexter Ave North ROW | 12/21/12 | SES | Bladder | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-17.51 to -27.51) | | 12/26/13 | SES | Bladder | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 03/22/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/16/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/12/18 | PES | Bladder | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | **800** | | **500** | | **500** | | **0.5** | | **72** | | **29** | | **10,000** | | **2.4** | | **1** | | **16** | | **100** | | **0.2** | |
| MW126 | Alley Between 8th and | 01/03/14 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-54.06 to -64.06) | 9th Ave North | 03/28/17 | PES | Peristaltic | – | | – | | – | | **0.148** | **J** | 0.563 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.283** | **J** | 0.152 | U | 0.118 | U |
| | | 06/15/17 | PES | Bladder | – | | – | | – | | 0.0896 | U | 0.412 | U | **0.179** | **J** | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/06/18 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW-143 | 8th Ave North ROW | 04/30/18 | PES | Peristaltic | **154** | | – | | – | | **0.244** | **J** | **0.797** | | **0.212** | **J** | **1.08** | **J** | 0.199 | U | 0.153 | U | **129** | | **0.512** | | **193** | |
| (-27.67 to -37.57) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-145 | 8th Ave North ROW | 04/27/18 | PES | Bladder | 52.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.212** | **J** | **2.29** | | 0.152 | U | **3.88** | |
| (-26.14 to -36.14) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-147 | Roy St ROW | 05/01/18 | PES | Bladder | **484** | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **19.8** | | **83.4** | | **399** | | **2.09** | | **1,150** | |
| (-17.64 to -27.64) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-148 | Roy St ROW | 05/01/18 | PES | Bladder | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| (-25.73 to -35.73) | (duplicate) | 05/01/18 | PES | Bladder | 31.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.216** | **J** | 0.152 | U | 0.118 | U |
| MW-157 | 8th Ave North ROW | 04/26/18 | PES | Peristaltic | **65.7** | **J** | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.950** | | **0.240** | **J** | **10.4** | | **0.246** | **J** | **104** | |
| (-28.29 to -38.19) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PW-1 | North Valley St ROW | 1997 (8 hour) | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | **1.0** | | ND | | ND | | ND | | ND | |
| | | 1997 (Final) | B&V | Bailer | 250 | U | 630 | U | 630 | U | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| | | Decommissioned | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-MW-01 | 8th Ave North ROW | 02/02/12 | WW | Bladder | – | | – | | – | | 20 | U | **0.1** | **J** | 0.2 | U | 0.6 | U | **46** | | **3.9** | | **11** | | 0.2 | U | **0.5** | |
| (-25.12 to -35.12) | | 09/06/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | **1.7** | | 1 | U | 3 | U | 1 | U | 1 | U | **2.0** | | 1 | U | **2.8** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **0.46** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **0.88** | |
| | | 01/08/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **2.5** | |
| | | 02/01/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **2.8** | |
| | | 03/30/17 | PES | Peristaltic | – | | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.330** | **J** | **0.203** | **J** | **0.491** | **J** | 0.152 | U | **1.83** | **J** |
| | | 06/19/17 | PES | Bladder | – | | – | | – | | **0.158** | **J** | **0.931** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.320** | **J** | 0.152 | U | **1.09** | |
| | | 04/13/18 | PES | Bladder | 37.6 | U | – | | – | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **5.33** | | **1.68** | | **1.31** | | 0.152 | U | **8.79** | |
| W-MW-02 | 8th Ave North ROW | 02/03/12 | WW | Bladder | – | | – | | – | | 20 | U | 20 | U | 20 | U | 60 | U | **6,900** | | **1,700** | | **2,000** | | 20 | U | **120** | |
| (-26.54 to -36.54) | | 08/13/12 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | **3,000** | | **1,300** | | **2,200** | | **4.1** | | **66** | |
| | | 09/05/12 | SES | Peristaltic | – | | – | | – | | 0.35 | U | **1.4** | | 1 | U | 3 | U | **2,600** | | **1,300** | | **2,800** | | **5.0** | | **69** | |
| | | 01/03/14 | SES | Peristaltic | – | | – | | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | **490** | | **1,200** | | **4,400** | | **7.3** | | **67** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 10 | U | 10 | U | **13,000** | | **95** | | **2,400** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 5 | Uht | 5 | Uht | **12,000** | **ht** | **97** | **ht** | **1,700** | **ht** |
| | | 11/10/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | **3.4** | | **480** | | **3.6** | | **110** | |
| | | 12/11/15 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | **4.9** | | **900** | | **6.2** | | **2,900** | |
| | | 01/08/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | **3.1** | | **750** | | **26** | | **7,500** | |
| | | 02/01/16 | SES | Peristaltic | – | | – | | – | | – | | – | | – | | – | | 1 | U | **4.6** | | **2,900** | | **35** | | **2,800** | |
| | | 03/27/17 | PES | Peristaltic | – | | – | | – | | **0.270** | **J** | **0.961** | **J** | 0.158 | U | 0.316 | U | 0.199 | U | **0.259** | **J** | **33.0** | | **2.16** | | **36.4** | |

# Table F-8

## Groundwater Analytical Data for Intermediate Water-Bearing Zone Wells
## Former Amereican Linen Supply, 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | | ORO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | **800** | | **500** | | **500** | | **0.5** | | **72** | | **29** | | **10,000** | | **2.4** | | **1** | | **16** | | **100** | | **0.2** | |
| W-MW-02 | | 06/19/17 | PES | Bladder | – | | – | | – | | **0.307** | **J** | **0.970** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **18.2** | | **0.746** | | **25.6** | |
| (continued) | | 06/12/18 | PES | Bladder | 32 | U | – | | – | | 0.0896 | U | **0.829** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **4.72** | | **0.279** | **J** | **4.95** | |
| | | | | Number of Analytes Measured | 58 | | 20 | | 20 | | 125 | | 125 | | 122 | | 125 | | 191 | | 191 | | 191 | | 190 | | 191 | |
| | | | | Number of Analytes Detected | 9 | | 0 | | 0 | | 26 | | 28 | | 13 | | 9 | | 109 | | 120 | | 145 | | 74 | | 137 | |
| | | | | Frequency of Detection | 16% | | 0% | | 0% | | 21% | | 22% | | 11% | | 7% | | 57% | | 63% | | 76% | | 39% | | 72% | |
| | | | | Maximum Detection | 669 | | – | | 440 | x | 14.1 | | 17.6 | E | 28.6 | | 55.1 | | 220,000 | | 8,050 | | 35,300 | | 114 | | 7,500 | |
| | | | | Minimum Detection | 28.9 | | 50 | U | 100 | U | 0.0896 | U | 0.1 | J | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

Notes:

Petroleum Hydrocarbons analyzed by EPA Method 418.1 or 8015-M, NWTPH-HCID, or NWTPH-Gx/NWTPH-Dx.

VOCs analyzed by EPA Methods 8015, 8020, 8021B, 8240, 8260B, or 8260C OR by Purge and Trap Gas Chromatogram/Mass Spectrometry or EPA Method 601, 8010S, 8240, 8260B, or 8260C.

* Monitoring well was installed at a 25 degree angle from the vertical point of penetration.

(dup) = duplicate

B&V = Black & Veatch

cDCE = cis-1,2-dichloroethene

DOF = Dalton, Olmsted & Fuglevand, Inc.

DRO = diesel-range organics

E = Estimated value. The reported range exceeds the calibration range of the analysis.

Geo = GeoEngineers Inc.

GRO = gasoline-range organics

ORO = oil-range organics

PCE = perchloroethylene (tetrachloroethene)

ROW = right-of-way

SES = SES Strategies, Inc.

TCE = trichloroethene

tDCE = trans-1,2-dichloroethene

VC = vinyl chloride

WW = Windward

– = not analyzed

Detected results shown in bold, detections above the screening level (see Table 3) highlighted in gray

f = Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.

ht = The analysis was performed outside the method the method or client-specified holding time requirement.

J = Estimated concentration.

ND = not detected at a concentration exceeding laboratory reporting limit; detection limit not provided

pr = The sample was received with incorrect preservation. The value reported should be considered an estimate.

U = not detected at or above the laboratory method detection limit (MDL); detections above the screening level highlighted in gray

x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

y = The GRO result in the sample is due to a pattern of peaks that is consistent with the chlorinated volatiles detected by the 8260C analysis.

z = No/low level gasoline/petroleum detection; result is likely elevated due to high detections of CVOCs

# Table F-9

## Groundwater Analytical Data for Deep Water-Bearing Zone Wells
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | 800 | | 500 | 500 | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| **On Property** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW101 | Property | 07/20/12 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-65.51 to -75.51) | | 09/06/12 | SES | Peristaltic | – | | – | – | 0.35 | U | **1.4** | | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | Decommissioned 2013 | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-133 | Property | 09/25/17 | PES | Bladder | 41.2 | U | – | – | 0.0896 | U | **0.748** | | 0.158 | U | 0.316 | U | **12.7** | | **16.2** | | **13.3** | | **1.13** | | **0.239** | **J** |
| | | 04/25/18 | PES | Bladder | 31.6 | U | | | 0.0896 | U | **0.837** | | 0.158 | U | 0.316 | U | **0.646** | | **0.516** | | **10.7** | | **0.315** | **J** | **3.51** | |
| MW-137 | Property | 09/25/17 | PES | Bladder | 58.5 | U | – | – | 0.0896 | U | **3.90** | | 0.158 | U | 0.316 | U | **15.0** | | **19.1** | | **62.0** | | 0.152 | U | 0.118 | U |
| | | 04/12/18 | PES | Bladder | 31.6 | U | | | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **1.79** | | 0.152 | U | **4.26** | |
| MW-141 | Property | 09/22/17 | PES | Bladder | – | | – | – | 0.0896 | U | **0.941** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.345** | **J** | 0.152 | U | **0.457** | **J** |
| | | 04/12/18 | PES | Submersible | **326** | | **–** | **–** | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **71.3** | **J+** | **25.6** | **J+** | **91.6** | **J+** | **5.68** | **J+** | **7.01** | **J+** |
| **Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FMW-129 | SDOT Property | 05/23/14 | Farallon | Unknown | – | | – | – | – | | – | | – | | – | | **0.40** | | **0.57** | | **17** | | ND | | **7.6** | |
| (-45 to -50) | South of Roy St | 10/20/15 | SES | Persitaltic | – | | – | – | – | | – | | – | | – | | **25** | | **39** | | **250** | | 1 | U | 0.2 | U |
| | | 02/02/16 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **13** | | **61** | | **240** | | 1 | U | **0.330** | |
| | | 04/10/17 | PES | Peristaltic | – | | – | – | 0.448 | U | 2.06 | U | 0.790 | U | 1.58 | U | **194** | | **492** | | **1,420** | | **5.05** | | **0.885** | **J** |
| | | 06/23/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **81.1** | | **182** | | **474** | | **1.21** | | **0.413** | |
| FMW-131 | Block 37 | 09/02/16 | Farallon | Unknown | – | | – | – | – | | – | | – | | – | | 0.20 | U | 0.20 | U | **41** | | 0.20 | U | **1.7** | |
| (-34.65 to -44.65) | | 03/24/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **45.6** | | 0.152 | U | **0.249** | **J** |
| | | 06/23/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **3.61** | | 0.152 | U | **0.264** | **J** |
| FMW-3D | Block 31 | 03/24/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/23/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| GEI-2 | Block 37 | 03/24/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **2.25** | | 0.152 | U | **6.94** | |
| (-21.12 to -31.12) | | 06/23/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **16.3** | | 0.152 | U | **127** | |
| MW102 | Valley St ROW | 08/16/12 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-65.81 to -75.81) | | 09/05/12 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/17/13 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 10/27/15 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 02/02/16 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 03/29/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.223** | **J** | 0.152 | U | 0.118 | U |
| | | 06/15/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/25/18 | PES | Bladder | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.352** | **J** | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW103 | Alley East of | 07/31/12 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **12** | | **25** | | **150** | | 10 | U | **79** | |
| (-67.58 to -77.58) | 8th Ave North | 09/05/12 | SES | Peristaltic | – | | – | – | 0.35 | U | **1.6** | | 1 | U | 3 | U | **8.3** | | **22** | | **80** | | 1 | U | **110** | |
| (duplicate) | | 09/05/12 | SES | Peristaltic | – | | – | – | 0.35 | U | **1.6** | | 1 | U | 3 | U | **8.1** | | **22** | | **85** | | 1 | U | **120** | |
| | | 12/18/13 | SES | Peristaltic | – | | | – | 0.35 | U | **2.4** | | 1 | U | 3 | U | **4.3** | | **6.1** | | **8.6** | | 1 | U | **1.2** | |
| (duplicate) | | 12/18/13 | SES | Peristaltic | – | | – | – | 0.35 | U | **2.4** | | 1 | U | 3 | U | **4.0** | | **5.2** | | **7.1** | | 1 | U | **0.94** | |
| | | 06/17/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **1.8** | | **1.4** | | 1 | U | 1 | U | **0.94** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **3.6** | | **1.4** | | 1 | U | 1 | U | **1.6** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **1.0** | | 1 | U | **1.2** | | 1 | U | **0.53** | |
| | | 03/29/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | **0.464** | **J** | 0.158 | U | 0.316 | U | 1.99 | U | **23.1** | | **240** | | **0.405** | **J** | **157** | |
| | | 06/14/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.626 | | **23.0** | | **120** | | **0.369** | **J** | **69.2** | |
| | | 04/06/18 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **1.81** | | **32.4** | | 0.152 | U | **22.4** | |

## Table F-9

## Groundwater Analytical Data for Deep Water-Bearing Zone Wells
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| MW104 | 8th Ave North ROW | 08/16/12 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-76.32 to -86.32) | | 09/06/12 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/17/13 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 10/27/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **2.6** | | **4.4** | | **4.3** | | 1 | U | 0.2 | U |
| | | 02/02/16 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | **1.2** | | **19** | | 1 | U | 0.2 | U |
| | | 03/30/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **3.97** | | 0.152 | U | 0.118 | UJ |
| | | 06/30/17 | PES | Bladder | – | | – | – | **0.387** | **J** | **0.903** | | 0.158 | U | **0.396** | **J** | **5.83** | | **5.21** | | **1.54** | | 0.152 | U | 0.118 | U |
| | | 04/09/18 | PES | Peristaltic | **81.3** | **J** | **–** | **–** | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.541** | | **2.00** | | **176** | | **1.02** | | **32.3** | |
| MW105 | Roy Street ROW | 08/16/12 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **0.32** | |
| (-85.83 to -95.83) | | 09/05/12 | SES | Peristaltic | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.23** | |
| | | 12/29/13 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 04/12/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **1.2** | | **1.6** | | 1 | U | 1 | U | 0.2 | U |
| | | 06/17/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 10/27/15 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 02/03/16 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | **1.6** | |
| | | 04/21/17 | PES | Bladder | – | | – | – | 0.0896 | U | **0.544** | **J** | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **0.155** | **J** | 0.152 | U | **1.95** | |
| | | 06/14/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.356** | **J** | **0.180** | **J** | 0.152 | U | **0.514** | |
| | | 04/11/18 | PES | Bladder | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **1.67** | | 0.152 | U | **0.205** | **J** |
| MW106 | SDOT Property | 08/22/12 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U |
| (-78.01 to -88.01) | South of Roy St | 09/05/12 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/17/13 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 10/27/15 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 02/02/16 | SES | Bladder | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 04/14/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/30/17 | PES | Bladder | – | | – | – | 0.0896 | U | **0.419** | **J** | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 05/04/18 | PES | Bladder | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW113 | 9th Ave North ROW | 12/21/12 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | **1.3** | **i** | **440** | | **5,500** | | **4.1** | | **150** | |
| (-37.06 to -47.06) | | 12/19/13 | SES | Peristaltic | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | **13** | | **140** | | 1 | U | **0.41** | |
| | | 06/25/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | **19** | | **670** | | 1 | U | **17** | |
| | | 10/27/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | **4.5** | | **670** | | **1.2** | | **17** | |
| | | 02/03/16 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | **1.1** | | **1,500** | | **2.2** | | **13** | |
| | | 03/22/17 | PES | Peristaltic | – | | – | – | **2.60** | | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **27.1** | | **7,280** | | **25.4** | | **63.5** | |
| | | 06/16/17 | PES | Bladder | – | | – | – | **0.468** | **J** | 0.412 | U | 0.158 | U | 0.316 | U | **0.522** | | **148** | | **4,750** | | **28.2** | | **53.3** | |
| | | 04/11/18 | PES | Peristaltic | – | | – | – | **0.880** | | 0.412 | U | 0.158 | U | 0.316 | U | **191** | | **1,100** | | **3,720** | | **21.3** | | **34.9** | |
| MW122 | Alley East of | 12/23/13 | SES | Peristaltic | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-74.97 to -88.97) | 800 Aloha St | 10/20/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 02/02/16 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 03/28/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/14/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.162** | **J** | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/06/18 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW123 | Westlake Ave North | 12/23/13 | SES | Peristaltic | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| (-42.49 to -52.49) | ROW | 04/01/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 06/24/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/14/18 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.284** | **J** | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

# Table F-9

## Groundwater Analytical Data for Deep Water-Bearing Zone Wells
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sampling Method | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | | DRO | ORO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| MW124 (-53.76 to -63.76) (duplicate) | Valley Street ROW | 12/26/13 | SES | Bladder | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 03/29/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.785 | U | 0.158 | U | 0.316 | U | **1.60** | | **0.596** | | **0.661** | | 0.152 | U | 0.118 | U |
| | | 03/29/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.675 | U | 0.158 | U | 0.316 | U | **1.22** | | **0.433** | | **0.600** | | 0.152 | U | 0.118 | U |
| | | 06/15/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| | | 04/13/18 | PES | Bladder | 39.4 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW128 | Westlake Ave North ROW | 01/13/14 | SES | Peristaltic | – | | – | – | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | **960** | ve | 1 | U | **290** | ve |
| | | 04/22/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | **150** | | 1 | U | **59** | |
| | | 10/20/15 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | **7.0** | | 1 | U | **95** | |
| | | 02/02/16 | SES | Peristaltic | – | | – | – | – | | – | | – | | – | | 1 | U | 1 | U | **70** | | 1 | U | **140** | |
| | | 03/29/17 | PES | Peristaltic | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **7.16** | | 0.152 | U | **72.4** | |
| | | 06/21/17 | PES | Bladder | – | | – | – | **3.84** | | **0.541** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **109** | | 0.152 | U | **195** | |
| | | 04/09/18 | PES | Peristaltic | – | | – | – | **28.3** | | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | **3.07** | | 0.152 | U | **31.0** | |
| MW-138 | Dexter Ave N ROW | 09/21/17 | PES | Bladder | **63.3** | **J** | – | – | 0.179 | U | **2.60** | | 0.316 | U | 0.632 | U | 0.398 | U | 0.306 | U | 0.187 | U | 0.304 | U | 0.236 | U |
| | | 04/11/18 | PES | Bladder | 91.1 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW-140 (duplicate) | Roy Street ROW | 09/22/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.450** | **J** | **0.477** | **J** | 0.152 | U | 0.118 | U |
| | | 09/22/17 | PES | Bladder | – | | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | **0.456** | **J** | **0.523** | | 0.152 | U | 0.118 | U |
| | | 04/12/18 | PES | Bladder | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.402** | **J+** | **0.572** | **J+** | **2.47** | **J+** | 0.152 | U | **0.246** | **J+** |
| MW-153 | Roy Street ROW | 05/01/18 | PES | Bladder | **31.6** | **J** | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | **0.756** | | 0.153 | U | **0.612** | | 0.152 | U | **9.56** | |
| MW-158A | 8th Ave N ROW | 04/30/18 | PES | Bladder | **101** | | – | – | 0.0896 | U | **2.66** | | 0.158 | U | 0.316 | U | **17.7** | | **18.7** | | **59.6** | **J** | **0.205** | **J** | **8.91** | |
| MW-160 | 8th Ave N ROW | 05/21/18 | PES | Bladder | **51.0** | **J** | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | **0.342** | **J** | **0.380** | **J** | **0.835** | | **2.96** | | 0.152 | U | 0.118 | U |
| MW-161 | 8th Ave N ROW | 05/21/18 | PES | Bladder | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | **0.329** | **J** | **2.01** | | **1.79** | | **1.89** | | 0.152 | U | 0.118 | U |
| | | | | Number of Samples | 17 | | – | – | 68 | | 68 | | 68 | | 68 | | 100 | | 100 | | 100 | | 100 | | 100 | |
| | | | | Number of Detections | 6 | | – | – | 6 | | 14 | | 0 | | 3 | | 31 | | 38 | | 54 | | 15 | | 49 | |
| | | | | Frequency of Detection | 35% | | – | – | 9% | | 21% | | 0% | | 4% | | 31% | | 38% | | 54% | | 15% | | 49% | |
| | | | | Maximum | 326 | J | – | – | 28.3 | | 3.90 | | – | | 0.396 | J | 194 | | 1,100 | | 7,280 | | 28.2 | | 290 | ve |
| | | | | Minimum | 31.6 | U | – | – | 0.0896 | U | 0.412 | U | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

Notes:

1. Petroleum hydrocarbons analyzed by EPA Method 418.1 NWTPH-HCID, or NWTPH-Gx, NWTPH-Dx or 8015-M
2. GRO = gasoline-range organics
3. DRO = diesel-range organics
4. ORO = oil-range organics
5. PCE = perchloroethylene (tetrachloroethene)
6. TCE = trichloroethene
7. cDCE = cis-1,2-dichloroethene
8. tDCE = trans-1,2-dichloroethene
9. VC = vinyl chloride
10. ROW = right-of-way
11. (dup) = duplicate
12. SES = SoundEarth Strategies, Inc.
13. Farallon = Farallon Consulting, LLC
14. – = not analyzed or not measured
15. U = not detected at a concentration exceeding laboratory reporting limit
16. ND = not detected at a concentration exceeding laboratory reporting limit; detection limit not provided
17. Detected results shown in bold, detections above the screening levels highlighted in gray
18. ve = estimated value due to the reported range exceeding the calibration range of the analysis
19. i = the presence of the analyte indicated may be due to carryover from previous sample injections

# Table F-10

## Summary of Reconnaissance Groundwater Analytical Data
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sample Interval (FT BTOC) | Color Tec (µg/L) | Analytical Results (micrograms per liter, µg/L) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | Benzene | Toluene | Ethylbenzene | Total Xylenes | PCE | TCE | cDCE | tDCE | VC |
| | | | | Screening Level | | 800 | 0.5 | 72 | 29 | 10,000 | 2.4 | 1 | 16 | 100 | 0.2 |
| **On Property** | | | | | | | | | | | | | | | |
| B101/MW101 | Property | 7/11/12 | SES | 75 to 80 | – | – | – | – | – | – | **32** | 1 U | **2.9** | 1 U | 0.2 U |
| | (duplicate) | 7/11/12 | SES | 75 to 80 | – | – | – | – | – | – | **150** | **6.1** | **25** | 1 U | **1.1** |
| | | 7/12/12 | SES | 95 to 100 | – | – | – | – | – | – | **3.4** | 1 U | 1 U | 1 U | 0.2 U |
| | | 7/12/12 | SES | 110 to 120 | – | – | – | – | – | – | 1 U | 1 U | 1 U | 1 U | 0.2 U |
| | | 7/12/12 | SES | 134 to 139 | – | – | – | – | – | – | 1 U | 1 U | 1 U | 1 U | 0.2 U |
| B-2 | Property | 6/23/00 | Retec | 11.5 | – | – | 250 U | 250 U | 250 U | 500 U | **37,000** | **600** | **4,100** | 250 U | 250 U |
| B-6 | Property | 6/24/00 | Retec | 14.5 | – | – | 50 U | 50 U | 50 U | 100 U | **6,800** | **54** | **57** | 50 U | 50 U |
| B-7 | Property | 6/24/00 | Retec | 12.5 | – | – | 50 U | 50 U | 50 U | 100 U | **21,000** | **310** | **880** | 50 U | 50 U |
| B-8 | Property | 6/24/00 | Retec | 8 | – | – | – | – | – | – | **3,100** | 50 U | 50 U | – | 50 U |
| B-9 | Property | 6/24/00 | Retec | 12 | – | – | – | – | – | – | **120,000** | **210** | **270** | – | 50 U |
| B-10 | Property | 6/24/00 | Retec | 12.5 | – | – | – | – | – | – | **9,100** | **1,100** | **7,600** | – | **98** |
| DB01 | Property | 3/18/13 | SES | 35 to 40 | – | – | – | – | – | – | **1.4** | 1 U | **2.4** | 1 U | 0.2 U |
| DB02 | Property | 3/18/13 | SES | 39 to 44 | – | – | – | – | – | – | **140** | **19** | **14.0** | 1 U | **0.35** |
| DB03 | Property | 3/27/13 | SES | 55 to 60 | – | – | – | – | – | – | **6,700** | **420** | **420** | 1 U | **12** |
| DB04 | Property | 3/22/13 | SES | 55 to 60 | – | – | – | – | – | – | **15** | 1 U | 1 U | 1 U | 0.2 U |
| DB05 | Property | 3/26/13 | SES | 65 to 70 | – | – | – | – | – | – | **1,400** | **11** | **1.7** | 1 U | 0.2 U |
| DB05A | Property | 3/28/13 | SES | 40 to 45 | – | – | – | – | – | – | **230,000** | **790 ve** | **42** | 1 U | **1.2** |
| DB06 | Property | 3/25/13 | SES | 75 to 80 | – | – | – | – | – | – | **170** | **4.4** | **5.0** | 1 U | 0.2 U |
| DB07 | Property | 3/28/13 | SES | 65 to 80 | – | – | – | – | – | – | **15,000** | 1,000 U | 1,000 U | 1,000 U | 200 U |
| DB08 | Property | 3/21/13 | SES | 65 to 70 | – | – | – | – | – | – | **7,300** | **1,100** | **1,300** | 10 U | **38.0** |
| DB09 | Property | 3/19/13 | SES | 35 to40 | – | – | – | – | – | – | **5,000** | **400** | **700** | **3.1** | **4.8** |
| | | 3/19/13 | SES | 65 to 70 | – | – | – | – | – | – | **1,900** | **460** | **460** | 1 U | **2.3** |
| DB10 | Property | 3/29/13 | SES | 35 to 40 | – | – | – | – | – | – | **200,000** | **1,700** | 1,000 U | 1,000 U | 200 U |
| | | 4/1/13 | SES | 65 to 70 | – | – | – | – | – | – | **6,900** | 100 U | 100 U | 100 U | 20 U |
| DB12 | Property | 4/3/13 | SES | 10 to 15 | – | – | – | – | – | – | **170,000** | **4,800** | **3,100** | 2,000 U | 400 U |
| | | 4/3/13 | SES | 40 to 45 | – | – | – | – | – | – | **46,000** | **1,100** | 1,000 U | 1,000 U | 200 U |
| DB13 | Property | 4/3/13 | SES | 10 to 15 | – | – | – | – | – | – | **2,500** | **100** | **160** | **1.8** | 0.2 U |
| | | 4/3/13 | SES | 40 to 45 | – | – | – | – | – | – | **8,200** | **800 ve** | **430 ve** | 1 U | **3.0** |
| DB14 | Property | 4/4/13 | SES | 10 to 15 | – | **7,200** | **100** | 40 U | **90** | **130** | – | – | – | – | – |
| | | 4/4/13 | SES | 40 to 45 | – | – | – | – | – | – | **470** | **210** | **840** | 100 U | **140** |
| IW06 | Property | 1/15/15 | SES | 70 | – | – | – | – | – | – | **1,600** | **33** | **73** | 1 U | **2.3** |
| W-MW-04 | Property, NE quadrant | 1/28/12 | WW | 10 to 20 | – | – | **0.7** | **0.2 J** | 0.2 U | **0.3 J** | **19** | **8.4** | **37** | **0.4** | **37** |
| | | 1/28/12 | WW | 30 to 40 | – | – | **0.2** | **0.2 J** | 0.2 U | **0.1 J** | **2,800** | **26** | **47** | **0.4** | **12** |
| | | 1/28/12 | WW | 50 to 60 | – | – | **0.4** | **0.6** | **0.1 J** | **0.6 J** | **12,000** | **230** | **270** | **0.2** | **3.4** |
| MW-133 | Property, SW quadrant | 8/15/17 | PES | 80 to 82 | – | **2,990 Jz** | **0.808** | **774** | **0.228 J** | **0.708 J** | **6,690** | **797** | **182** | **3.00** | **46.2** |
| | | 8/15/17 | PES | 90 to 92 | – | **2,210 Jz** | **64.3** | **711** | **1.44 J** | **2.92 J** | **413** | **34.4** | **22.2** | 0.760 U | **1.56 J** |
| | | 8/16/17 | PES | 100.5 - 102.5[a] | 390 | – | – | – | – | – | – | – | – | – | – |

# Table F-10

## Summary of Reconnaissance Groundwater Analytical Data
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sample Interval (FT BTOC) | Color Tec (µg/L) | Analytical Results (micrograms per liter, µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | | 800 | | 0.5 | | 72 | | 29 | | 10,000 | | 2.4 | | 1 | | 16 | | 100 | | 0.2 | |
| B-211 | Property, SW quadrant | 8/18/17 | PES | 85 - 87[a] | – | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | | 8/18/17 | PES | 100 - 102[b] | 900 | – | | – | | – | | – | | – | | – | | – | | – | | – | |
| | | 8/21/17 | PES | 120 - 122 | – | **2,880** | **z** | **1.65** | | **297** | | **0.557** | | **1.67** | | **19.8** | | **8.34** | | **4.86** | | **0.168** | **J** | **0.160** | **J** |
| B-205 | Property, NE quadrant | 8/30/17 | PES | 40 - 42 | 65,000 | **6,550** | **z** | 8.96 | U | **55.6** | | 15.8 | U | 31.6 | U | **10,300** | | **1,130** | | **5,670** | | **30.1** | **J** | **1,010** | |
| MW-137 | Property, SW quadrant | 8/31/17 | PES | 76 - 78 | <3 | **745** | | **0.658** | **J** | **151** | | 0.790 | U | 1.58 | U | 0.995 | U | 0.765 | U | **4.46** | | 0.760 | U | 0.590 | U |
| | | 8/31/17 | PES | 76 - 78 (dup) | – | **631** | | 0.448 | U | **105** | | 0.790 | U | 1.58 | U | 0.995 | U | 0.765 | U | **2.86** | | 0.760 | U | 0.590 | U |
| | | 9/1/17 | PES | 107 - 109 | <3 | 31.6 | U | 0.0896 | U | **41.1** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |
| MW-141 | Property, SE quadrant | 9/19/17 | PES | 105 - 107 | <3 | – | | **0.286** | **J** | **88.5** | | **0.158** | **J** | **0.472** | **J** | 0.199 | U | 0.153 | U | **0.148** | **J** | 0.152 | U | 0.118 | U |
| **Off Property** | | | | | | | | | | | | | | | | | | | | | | | | | |
| B102/MW102 | Property | 7/17/12 | SES | 25 to 30 | – | – | | – | | – | | – | | – | | **5.0** | | **2.5** | | **9.0** | | 1 | U | **0.84** | |
| | | 7/17/12 | SES | 25 to 30 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 7/17/12 | SES | 45 to 50 | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | **2.4** | | 1 | U | **0.20** | |
| | | 7/17/12 | SES | 45 to 50 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | **1.2** | | 1 | U | 0.2 | U |
| | | 7/19/12 | SES | 85 to 90 | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 7/19/12 | SES | 85 to 90 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| B103/MW103 | Alley Between 8th and 9th Ave | 7/25/12 | SES | 20 to 25 | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 7/25/12 | SES | 20 to 25 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 7/25/12 | SES | 35 to 40 | – | – | | – | | – | | – | | – | | **1,800** | | **860** | | **400** | | **2.4** | | **42** | |
| | | 7/25/12 | SES | 35 to 40 [(5)] | – | – | | – | | – | | – | | – | | **840** | | **350** | | **140** | | 1 | U | **14** | |
| | | 7/26/12 | SES | 75 to 80 | – | – | | – | | – | | – | | – | | **320** | | **62** | | **100** | | 1 | U | **3.4** | |
| | | 7/26/12 | SES | 75 to 80 [(5)] | – | – | | – | | – | | – | | – | | **170** | | **50** | | **85** | | 1 | U | **2.3** | |
| B104/MW104 | 8th Ave ROW | 7/31/12 | SES | 55 to 60 | – | – | | **0.77** | | **3.4** | | 1 | U | 3 | U | **900** | | **150** | | **480** | | 1 | U | **17** | |
| | | 7/31/12 | SES | 75 to 80 | – | – | | **1.0** | | **2.6** | | 1 | U | 3 | U | **220** | | **45** | | **180** | | 1 | U | **6.1** | |
| | | 8/1/12 | SES | 95 to 100 | – | – | | – | | – | | – | | – | | **15** | | **5.3** | | **11** | | 1 | U | **0.24** | |
| B105/MW105 | Roy St | 8/9/12 | SES | 75 to 80 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 8/10/12 | SES | 95 to 100 [(5)] | – | – | | – | | – | | – | | – | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| B106/MW106 | SDOT property south of Roy Street | 8/14/12 | SES | 30 to 35 | – | – | | – | | – | | – | | – | | **8.2** | | 1 | U | **1.0** | | 1 | U | **0.36** | |
| | | 8/14/12 | SES | 45 to 50 | – | – | | – | | – | | – | | – | | **1,100** | | **110** | | **210** | | 1 | U | **20** | |
| | | 8/15/12 | SES | 85 to 90 | – | – | | – | | – | | – | | – | | **19** | | **2.3** | | **9.7** | | 1 | U | **0.62** | |
| B122/MW122 | Alley East of 800 Aloha St | 12/17/13 | SES | 25 | – | – | | **29** | | **1.5** | | **2.5** | | **3** | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/17/13 | SES | 40 | – | – | | **13** | | **1.2** | | **1.9** | | 3 | U | 1 | U | 1 | U | **120** | | 1 | U | **14** | |
| | | 12/17/13 | SES | 85 | – | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | **0.72** | |
| B124/MW124 | Valley St ROW | 12/19/13 | SES | 45 | – | **170** | | 0.35 | U | 1 | U | **7.1** | | **49.7** | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/19/13 | SES | 60 | – | – | | 0.35 | U | 1 | U | **20** | | **144** | | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| | | 12/19/13 | SES | 100 | – | – | | 0.35 | U | 1 | U | 1 | U | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| B126/MW126 | Alley E of 800 Aloha St | 12/30/13 | SES | 40 | – | – | | **3.5** | | **2.4** | | **3.6** | | 3 | U | 1 | U | 1 | U | 1 | U | 1 | U | 0.2 | U |
| CHB-07 | Westlake Ave N ROW | 4/14/08 | CH2M | – | – | 250 | U | **0.7** | | 0.2 | U | 0.2 | U | 0.6 | U | 0.2 | U | 0.2 | U | **480** | | **1.8** | | **220** | |
| CHB-08 | 9th Ave N ROW | 4/15/08 | CH2M | – | – | 250 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.6 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| CHB-09 | 9th Ave N ROW | 4/16/08 | CH2M | – | – | 250 | U | **0.3** | | **0.3** | | 0.2 | U | 0.6 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| RS-20 | 800 Aloha Street Parcel | 3/5/93 | EPJ | – | – | **99,000** | | **96** | | **230** | | **1,500** | | **7,000** | | 5 | U | – | | – | | – | | – | |
| SCL-B101 | 800 Aloha Street Parcel | 6/17/02 | Urban | – | – | 50 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1.0 | U |

# Table F-10

## Summary of Reconnaissance Groundwater Analytical Data
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Area Location | Sample Date | Sampled By | Sample Interval (FT BTOC) | Color Tec (µg/L) | Analytical Results (micrograms per liter, µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| | | | | Screening Level | | **800** | **0.5** | | **72** | | **29** | | **10,000** | | **2.4** | | **1** | | **16** | | **100** | | **0.2** | |
| SCL-B102 | 800 Aloha Street Parcel | 6/17/02 | Urban | – | – | **150** | 1 | U | 1 | U | 1 | U | **3** | | 1 | U | 1 | U | 1 | U | 1 | U | 1.0 | U |
| W-MW-02 | 8th Ave ROW | 1/30/12 | WW | 10 to 20 | – | – | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | **1.6** | | **1.4** | | **8.0** | | **0.3** | | **0.3** | |
| | | 1/30/12 | WW | 30 to 40 | – | – | 20 | U | 20 | U | 20 | U | 60 | U | **24,000** | | **940** | | **1,700** | | **13** | **J** | **70** | |
| | | 1/30/12 | WW | 50 to 60 | – | – | 20 | U | 20 | U | 20 | U | 60 | U | **7,200** | | **1,300** | | **1,800** | | 20 | U | **85** | |
| B-213 | Dexter Avenue North | 9/6/17 | PES | 90 - 92 | <3 | **712** | **3.22** | | **436** | | 0.158 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | **0.424** | |
| MW-138 | Dexter Avenue North | 9/14/17 | PES | 115 - 117 | <3 | – | **0.275** | **J** | **10.4** | | 1.58 | U | 0.316 | U | 0.199 | U | 0.153 | U | 0.0933 | U | 0.152 | U | 0.118 | U |

Notes:

1. Petroleum hydrocarbons analyzed by EPA Method 418.1 or 8015-M, NWTPH-HCID, or NWTPH-Gx, NWTPH-Dx
4. GRO = gasoline-range organics
5. DRO = diesel-range organics
6. ORO = oil-range organics
7. PCE = perchloroethylene (tetrachloroethene)
8. TCE = trichloroethene
9. cDCE = cis-1,2-dichloroethene
10. tDCE = trans-1,2-dichloroethene
11. VC = vinyl chloride
12. ROW = right-of-way
13. (dup) = duplicate
14. SES = SoundEarth Strategies, Inc.
15. B&V = Black & Veatch
16. Farallon = Farallon Consulting, LLC
17. Retec = Remediation Technologies, Inc.
18. CH2M = CH2M HILL
19. EPJ = E.P. Johnson Contruction Inc., and Environmental
20. Urban = Urban Redevelopment
21. HC = Hart Crowser, Inc.
22. – = not analyzed or not measured
23. U = not detected at a concentration exceeding laboratory reporting limit
24. ND = not detected at a concentration exceeding laboratory reporting limit; detection limit not provided
25. Detected results shown in bold, detections above the screening levels highlighted in gray
26. i = The presence of the analyte indicated may be due to carryover from previous sample injections.
27. ve = Estimated value. The reported range exceeds the calibration range of the analysis.
28. J = Estimated concentration.
29. [a] = Sample extremely turbid; held at lab
30. [b] = Insufficient groundwater volume for laboratory analysis; ColorTec test run instead
31. z = No/low level gasoline/petroleum detection; result is likely elevated due to high detections of CVOCs

# Table F-11

## Groundwater Analytical Results for Polycyclic Aromatic Hydrocarbons
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Sample Location | Sample Date | Sampled By | Laboratory | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Acenaphthene | Acenaphthylene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo(g,h,i)perylene | Pentachlorophenol | Benzo(a)anthracene | Chrysene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Indeno(1,2,3-)pyrene | Dibenz(a,h)anthracene | Total TEC |
| **800 Aloha Street Parcel** | | | | | | | | | | | | | | | | | | | | |
| MW-7 | 06/20/02 | Urban | F&BI | **1.4** | **0.1** | **1.5** | **2.8** | **0.5** | **0.4** | **0.6** | **0.5** | 0.3 U | **0.1** | **0.1** | **0.1** | **0.1** | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| MW-9 | 06/20/02 | Urban | F&BI | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.3 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| MW-10 | 06/20/02 | Urban | F&BI | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.3 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| **TEF** | | | | – | – | – | – | – | – | – | – | – | 0.1 | 0.01 | 1 | 0.1 | 0.1 | 0.1 | 0.1 | – |
| **MTCA Cleanup Level** | | | | **960**(3) U | **NE** | **640**(3) | **NE** | **4,800**(3) | **640**(3) | **480**(3) | **NE** | **0.22**(4) | **0.12**(4) | **12**(4) | **0.1**(5) | **0.12**(4) | **1.2**(4) | **0.12**(4) | **0.012**(4) | **0.1**(5)(6) |

Notes:

PAHs analyzed by U.S. Environmental Protection Agency Method 8270D

The concentration of each of the seven cPAHs listed in table 708-2 (under WAC 173-340-900) is multiplied by its corresponding TEF (total equivalency factor). The sum of these seven factors equal the total TEC (toxicity equivalent concentration). When the analytical result for any individual cPAH is reported as less than the LRL, half of the LRL is used as the concentrations for the calculation. When analytical results for all seven cPAHs areless than the LRL, the LRL for benzo(a)pyrene is reported as the TEC. The resultant total TEC concentration is then compared to the cleanup level for benzo(a)pyrene.

(3) CLARC, Groundwater, Method B, Non Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Revised May 2014.

(4) CLARC, Groundwater, Method B, Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Revised May 2014.

(5) MTCA Method A Cleanup Levels, Table 720-1, Section 900, Chapter 173-340 of WAC, revised November 2007.

(6) The cleanup level for cPAHs is based on direct contact using Equation 740-2 under WAC 173-340-740. When establishing and determining compliance with cleanup levels for mixtures of cPAHs, the mixture of cPAHs is considered a single hazardous substance. Benzo(a)pyrene's cleanup level is used as the cleanup level for the mixture.

Abbreviations:

Urban = Urban Redevelopment LLC

F&BI = Friedman & Bruya, Inc. of Seattle, Washington

NE = not established

CLARC = cleanup levels and risk calculations

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

cPAH = carcinogenic polycyclic aromatic hydrocarbon

Laboratory and Results Notes:

Detected results shown in bold, detections exceeding MTCA Cleanup Level highlighted in gray

U = not detected at a concentration exceeding the laboratory reporting limit

– = not analyzed or not measured

# Table F-12

## Process Water Analytical Results
## Former American Linen Supply
## 700 Dexter Avenue North Seattle, Washington

| Sample Location | Sample ID | Sample Date | Analytical Results (micrograms per liter) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pH | Benzene | | Toluene | | Ethylbenzene | | Total Xylenes | | PCE | TCE | | cDCE | | tDCE | | VC | | 1,1-DCE | | DCM | |
| Sump 4 | SUMP4_A_20110629 | 6/29/11 | – | 35 | U | 100 | U | 100 | U | 300 | U | **20000** | **450** | | **47000** | | 100 | U | 20 | U | 100 | U | 500 | U |
| Effluent 1 | Effluent1_20120104 | 1/4/12 | **5.76** | – | | – | | – | | – | | **260** | **49** | | **32** | | 1 | U | **0.37** | | 1 | U | 5 | U |
| Poly Tank | Polytank1_20120823 | 8/23/13 | – | – | | – | | – | | – | | **270** | 1 | U | 1 | U | 1 | U | 0.2 | Upr | 1 | U | 5 | U |
| | Tank-20130201 | 2/1/13 | – | – | | – | | – | | – | | **240** | 1 | U | 1 | U | 1 | U | 0.2 | U | 1 | U | 5 | U |
| | Tank-20130205 | 2/5/13 | – | – | | – | | – | | – | | **5.3** | 1 | U | 1 | U | 1 | U | 0.2 | U | 1 | U | 5 | U |
| **King County Discharge Criteria** | | | **5.5<pH>12**(3) | **70**(4) | | **1,400**(4) | | **1,700**(4) | | **2,200**(4) | | **240**(4) | **500**(4) | | **2,000**(4) | | **2,000**(4) | | **12**(4) | | **3**(4) | | **4,100**(4) | |

Notes:

1. Chemical analyses conducted by Freidman & Bruya Inc., of Seattle, Washington.
2. VOCs Analyzed by U.S. Environmental Protection Agency Method 8260C.
3. pH analyzed be EPA Method 9040C.
4. PCE = perchloroethylene (tetrachloroethene)
5. TCE = trichloroethylene
6. cDCE = cis-1,2-dichloroethene
7. tDCE = trans-1,2-dichloroethene
8. VC = vinyl chloride
9. 1,1-DCE = 1,1-Dichloroethene
10. DCM = dichlormethane (or methylene chloride)
11. Detected results shown in bold, detections exceeding King County's Discharge Criteria highlighted in gray
12. – = not analyzed or not measured
13. U = not detected at a concentration exceeding the laboratory reporting limit
14. pr = The sample was received with incorrect preservation. The value reported should be considered an estimate.
15. (3)King County Industrial Waste Local Discharge Permits, Daily Minimum and Maximum Limits for Corrosive Substances, Section 6.1.5 of PUT-13-1 (PR), Effective September 15, 2008.
16. (4)King County Industrial Waste Discharge Screening Levels for Volatile Organic Compounds, September 22, 2009.

# Table F-13

## Soil Vapor Analytical Results
## Former American Linen Supply
## 700 Dexter Avenue North Seattle, Washington

| Sample Location | Sample Name | Sample Location | Sample Date | Analytical Results (micrograms per cubic meter) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PCE | | TCE | | cDCE | | tDCE | | VC | |
| SV01 | SV01-20130311 | SV01 | 03/05/13 | **1.5** | | 0.16 | U | **0.31** | | 0.58 | U | **0.71** | |
| SV02 | SV02-20130311 | SV02 | 03/05/13 | **2.3** | | 0.17 | U | 0.12 | U | 0.61 | U | 0.04 | U |
| SV03 | SV03-20130311 | SV03 | 03/05/13 | **4.6** | | **0.39** | | 0.12 | U | 0.58 | U | 0.037 | U |
| **MTCA Method B Soil Gas Screening Level**(2) | | | | **320** | | **12** | | – | | – | | **9.3** | |

Notes:

1. Laboratory analyses conducted by Air Toxics Ltd. of Folsom, California.
2. VOCs analyzed by U.S. Environmental Protection Agency Method Modified TO-15 Low Level Analysis.
3. PCE = perchloroethylene (tetrachloroethene)
4. TCE = trichloroethylene
5. cDCE = cis-1,2-dichloroethene
6. tDCE = trans-1,2-dichloroethene
7. VC = vinyl chloride
8. Detected results shown in bold, detections exceeding MTCA Cleanup Levels highlighted in gray
9. U = not detected at a concentration exceeding laboratory reporting limit
10. (2) Calculated by dividing the indoor air cleanup level by an attenuation factor of 0.1, for soil vapor just beneath a building, as specified in Table B-1, Ecology's Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State, October 2009.
11. (3)MTCA Method B Indoor Air Cleanup Level, Carcinogen, CLARC database, September 2012.
12. MTCA = Washington State Model Toxics Control Act
13. CLARC = cleanup levels and risk calculations
14. – = screening level not established

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-205 (63 feet bgs) | | B-206 (47 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0224 | 0.01355 |
| | 3/8" | 0.9500 | 0.0000 | 0.00000 | 0.0221 | 0.02082 |
| | 1/4" | 0.6351 | 0.0034 | 0.00455 | 0.0108 | 0.01445 |
| | 4,757 (No. 4) | 0.4757 | 0.0092 | 0.01720 | 0.0118 | 0.02206 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0053 | 0.01368 | 0.0151 | 0.03898 |
| | 2,000 (No. 10) | 0.2000 | 0.0078 | 0.03156 | 0.0176 | 0.07121 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0038 | 0.02332 | 0.0129 | 0.07915 |
| | 1000 (No. 18) | 0.1000 | 0.0059 | 0.05118 | 0.0187 | 0.16220 |
| | 707 (No. 25) | 0.0707 | 0.0135 | 0.16555 | 0.0339 | 0.41571 |
| | 500 (No. 35) | 0.0500 | 0.0351 | 0.60849 | 0.0469 | 0.81306 |
| | 420 (No. 40) | 0.0420 | 0.0200 | 0.44240 | 0.0246 | 0.54415 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0364 | 0.95643 | 0.0525 | 1.37946 |
| | 250 (No. 60) | 0.0250 | 0.1109 | 3.84025 | 0.0998 | 3.45588 |
| | 177 (No. 80) | 0.0177 | 0.1207 | 5.90739 | 0.0657 | 3.21554 |
| | 125 (No. 120) | 0.0125 | 0.1108 | 7.66826 | 0.0942 | 6.51941 |
| | 74 (No. 200) | 0.0074 | 0.1328 | 14.44952 | 0.1007 | 10.95683 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.1280 | 20.99405 | 0.1222 | 20.04276 |
| | 37 (No. 400) | 0.0037 | 0.0965 | 22.43055 | 0.0844 | 19.61801 |
| | 25 | 0.0025 | 0.0533 | 18.09968 | 0.0479 | 16.25578 |
| | 15.6 | 0.00156 | 0.0533 | 28.07513 | 0.0479 | 25.21498 |
| | 5 | 0.0005 | 0.0533 | 66.84813 | 0.0479 | 60.03797 |
| | | Sum | 1.00 | 190.627 | 1.00 | 168.892 |
| | | Estimated Maximum k (cm/sec) | | 2.62E-03 | | 3.33E-03 |
| | | Estimated Median k (cm/sec) | | 1.12E-03 | | 1.43E-03 |
| | | Estimated Minimum k (cm/sec) | | 3.71E-04 | | 4.73E-04 |
| | | % Gravel | 1.3 | | 6.7 | |
| | | % Sand | 60.3 | | 58.3 | |
| | | % Silt and Clay | 38.5 | | 35.0 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-207 (50 feet bgs) | | B-208 (56 - 57 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.1085 | 0.06561 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0089 | 0.00838 | 0.0253 | 0.02383 |
| | 1/4" | 0.6351 | 0.0107 | 0.01431 | 0.0173 | 0.02314 |
| | 4,757 (No. 4) | 0.4757 | 0.0053 | 0.00991 | 0.0056 | 0.01047 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0101 | 0.02607 | 0.0092 | 0.02375 |
| | 2,000 (No. 10) | 0.2000 | 0.0126 | 0.05098 | 0.0149 | 0.06029 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0082 | 0.05031 | 0.0103 | 0.06320 |
| | 1000 (No. 18) | 0.1000 | 0.0099 | 0.08587 | 0.0161 | 0.13965 |
| | 707 (No. 25) | 0.0707 | 0.0178 | 0.21828 | 0.0290 | 0.35563 |
| | 500 (No. 35) | 0.0500 | 0.0315 | 0.54608 | 0.0564 | 0.97775 |
| | 420 (No. 40) | 0.0420 | 0.0378 | 0.83613 | 0.0491 | 1.08609 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0311 | 0.81717 | 0.0439 | 1.15349 |
| | 250 (No. 60) | 0.0250 | 0.1098 | 3.80216 | 0.1267 | 4.38738 |
| | 177 (No. 80) | 0.0177 | 0.0971 | 4.75234 | 0.0691 | 3.38194 |
| | 125 (No. 120) | 0.0125 | 0.1020 | 7.05923 | 0.1096 | 7.58522 |
| | 74 (No. 200) | 0.0074 | 0.0797 | 8.67189 | 0.0883 | 9.60763 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0997 | 16.35240 | 0.0992 | 16.27039 |
| | 37 (No. 400) | 0.0037 | 0.0799 | 18.57203 | 0.0894 | 20.78022 |
| | 25 | 0.0025 | 0.0464 | 15.74672 | 0.0470 | 15.93903 |
| | 15.6 | 0.00156 | 0.0464 | 24.42537 | 0.0470 | 24.72366 |
| | 5 | 0.0005 | 0.0464 | 58.15787 | 0.0470 | 58.86813 |
| | | Sum | 1.00 | 160.269 | 1.00 | 165.461 |
| | | Estimated Maximum k (cm/sec) | | 3.70E-03 | | 3.47E-03 |
| | | Estimated Median k (cm/sec) | | 1.59E-03 | | 1.49E-03 |
| | | Estimated Minimum k (cm/sec) | | 5.25E-04 | | 4.93E-04 |
| | | % Gravel | 13.3 | | 4.8 | |
| | | % Sand | 54.8 | | 62.3 | |
| | | % Silt and Clay | 31.9 | | 33.0 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-209 (57 feet bgs) | | B-210 (59 - 60 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0378 | 0.02286 |
| | 3/8" | 0.9500 | 0.0216 | 0.02035 | 0.0172 | 0.01620 |
| | 1/4" | 0.6351 | 0.0132 | 0.01766 | 0.0108 | 0.01445 |
| | 4,757 (No. 4) | 0.4757 | 0.0057 | 0.01065 | 0.0036 | 0.00673 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0056 | 0.01446 | 0.0016 | 0.00413 |
| | 2,000 (No. 10) | 0.2000 | 0.0154 | 0.06231 | 0.0047 | 0.01902 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0112 | 0.06872 | 0.0024 | 0.01473 |
| | 1000 (No. 18) | 0.1000 | 0.0155 | 0.13445 | 0.0050 | 0.04337 |
| | 707 (No. 25) | 0.0707 | 0.0265 | 0.32497 | 0.0090 | 0.11037 |
| | 500 (No. 35) | 0.0500 | 0.0392 | 0.67957 | 0.0246 | 0.42646 |
| | 420 (No. 40) | 0.0420 | 0.0436 | 0.96443 | 0.0293 | 0.64811 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0358 | 0.94066 | 0.0248 | 0.65163 |
| | 250 (No. 60) | 0.0250 | 0.1037 | 3.59093 | 0.1053 | 3.64634 |
| | 177 (No. 80) | 0.0177 | 0.0893 | 4.37059 | 0.0801 | 3.92031 |
| | 125 (No. 120) | 0.0125 | 0.0910 | 6.29794 | 0.1150 | 7.95894 |
| | 74 (No. 200) | 0.0074 | 0.0807 | 8.78070 | 0.0864 | 9.40090 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.1255 | 20.58401 | 0.1236 | 20.27238 |
| | 37 (No. 400) | 0.0037 | 0.0944 | 21.94242 | 0.0991 | 23.03489 |
| | 25 | 0.0025 | 0.0607 | 20.58839 | 0.0732 | 24.84181 |
| | 15.6 | 0.00156 | 0.0607 | 31.93546 | 0.0732 | 38.53312 |
| | 5 | 0.0005 | 0.0607 | 76.03974 | 0.0732 | 91.74905 |
| | | Sum | 1.00 | 197.368 | 1.00 | 225.336 |
| | | Estimated Maximum k (cm/sec) | | 2.44E-03 | | 1.87E-03 |
| | | Estimated Median k (cm/sec) | | 1.05E-03 | | 8.03E-04 |
| | | Estimated Minimum k (cm/sec) | | 3.46E-04 | | 2.66E-04 |
| | | % Gravel | 4.1 | | 6.9 | |
| | | % Sand | 55.8 | | 48.8 | |
| | | % Silt and Clay | 40.2 | | 44.2 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-211 (83 feet bgs) | | B-213 (99 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0161 | 0.00974 | 0.0193 | 0.01167 |
| | 3/8" | 0.9500 | 0.0100 | 0.00942 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0067 | 0.00896 | 0.0000 | 0.00000 |
| | 4,757 (No. 4) | 0.4757 | 0.0209 | 0.03906 | 0.0117 | 0.02187 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0110 | 0.02840 | 0.0067 | 0.01730 |
| | 2,000 (No. 10) | 0.2000 | 0.0166 | 0.06717 | 0.0140 | 0.05665 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0290 | 0.17794 | 0.0135 | 0.08283 |
| | 1000 (No. 18) | 0.1000 | 0.0855 | 0.74163 | 0.0335 | 0.29058 |
| | 707 (No. 25) | 0.0707 | 0.2184 | 2.67823 | 0.0921 | 1.12942 |
| | 500 (No. 35) | 0.0500 | 0.2392 | 4.14676 | 0.1702 | 2.95058 |
| | 420 (No. 40) | 0.0420 | 0.0654 | 1.44664 | 0.1217 | 2.69199 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.1055 | 2.77206 | 0.0884 | 2.32275 |
| | 250 (No. 60) | 0.0250 | 0.0733 | 2.53824 | 0.1524 | 5.27732 |
| | 177 (No. 80) | 0.0177 | 0.0133 | 0.65094 | 0.0185 | 0.90544 |
| | 125 (No. 120) | 0.0125 | 0.0350 | 2.42229 | 0.0842 | 5.82733 |
| | 74 (No. 200) | 0.0074 | 0.0109 | 1.18599 | 0.0233 | 2.53520 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0198 | 3.24752 | 0.0448 | 7.34792 |
| | 37 (No. 400) | 0.0037 | 0.0069 | 1.60384 | 0.0251 | 5.83427 |
| | 25 | 0.0025 | 0.0055 | 1.85522 | 0.0269 | 9.12903 |
| | 15.6 | 0.00156 | 0.0055 | 2.87770 | 0.0269 | 14.16040 |
| | 5 | 0.0005 | 0.0055 | 6.85193 | 0.0269 | 33.71652 |
| | | Sum | 1.00 | 35.360 | 1.00 | 94.309 |
| | | Estimated Maximum k (cm/sec) | | 7.60E-02 | | 1.07E-02 |
| | | Estimated Median k (cm/sec) | | 3.26E-02 | | 4.59E-03 |
| | | Estimated Minimum k (cm/sec) | | 1.08E-02 | | 1.52E-03 |
| | | % Gravel | 5.4 | | 3.1 | |
| | | % Sand | 90.3 | | 81.9 | |
| | | % Silt and Clay | 4.3 | | 15.1 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-216 (77 feet bgs) | | B-217 (97 - 99 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.2494 | 0.15081 |
| | 3/8" | 0.9500 | 0.0066 | 0.00622 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0131 | 0.01752 | 0.0517 | 0.06915 |
| | 4,757 (No. 4) | 0.4757 | 0.0091 | 0.01701 | 0.0195 | 0.03645 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0025 | 0.00645 | 0.0124 | 0.03201 |
| | 2,000 (No. 10) | 0.2000 | 0.0109 | 0.04410 | 0.0253 | 0.10237 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0099 | 0.06074 | 0.0245 | 0.15033 |
| | 1000 (No. 18) | 0.1000 | 0.0139 | 0.12057 | 0.0441 | 0.38252 |
| | 707 (No. 25) | 0.0707 | 0.0251 | 0.30780 | 0.0742 | 0.90991 |
| | 500 (No. 35) | 0.0500 | 0.0375 | 0.65010 | 0.1594 | 2.76335 |
| | 420 (No. 40) | 0.0420 | 0.0350 | 0.77420 | 0.0823 | 1.82047 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0309 | 0.81191 | 0.0436 | 1.14561 |
| | 250 (No. 60) | 0.0250 | 0.1635 | 5.66169 | 0.0681 | 2.35817 |
| | 177 (No. 80) | 0.0177 | 0.1164 | 5.69693 | 0.0153 | 0.74882 |
| | 125 (No. 120) | 0.0125 | 0.1125 | 7.78592 | 0.0394 | 2.72680 |
| | 74 (No. 200) | 0.0074 | 0.0922 | 10.03197 | 0.0216 | 2.35022 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0948 | 15.54872 | 0.0212 | 3.47714 |
| | 37 (No. 400) | 0.0037 | 0.0976 | 22.68623 | 0.0141 | 3.27742 |
| | 25 | 0.0025 | 0.0429 | 14.54762 | 0.0113 | 3.82356 |
| | 15.6 | 0.00156 | 0.0429 | 22.56539 | 0.0113 | 5.93087 |
| | 5 | 0.0005 | 0.0429 | 53.72918 | 0.0113 | 14.12167 |
| | | Sum | 1.00 | 161.070 | 1.00 | 46.378 |
| | | Estimated Maximum k (cm/sec) | | 3.66E-03 | | 4.42E-02 |
| | | Estimated Median k (cm/sec) | | 1.57E-03 | | 1.90E-02 |
| | | Estimated Minimum k (cm/sec) | | 5.20E-04 | | 6.27E-03 |
| | | % Gravel | 2.9 | | 32.1 | |
| | | % Sand | 65.0 | | 61.0 | |
| | | % Silt and Clay | 32.1 | | 6.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-219 (73 feet bgs) | | MW-132 (53 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0298 | 0.01802 |
| | 3/8" | 0.9500 | 0.0214 | 0.02016 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0085 | 0.01137 | 0.0037 | 0.00495 |
| | 4,757 (No. 4) | 0.4757 | 0.0115 | 0.02149 | 0.0103 | 0.01925 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0142 | 0.03666 | 0.0116 | 0.02995 |
| | 2,000 (No. 10) | 0.2000 | 0.0254 | 0.10277 | 0.0309 | 0.12502 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0156 | 0.09572 | 0.0186 | 0.11412 |
| | 1000 (No. 18) | 0.1000 | 0.0268 | 0.23246 | 0.0390 | 0.33829 |
| | 707 (No. 25) | 0.0707 | 0.0539 | 0.66097 | 0.0657 | 0.80568 |
| | 500 (No. 35) | 0.0500 | 0.0756 | 1.31060 | 0.0863 | 1.49609 |
| | 420 (No. 40) | 0.0420 | 0.0836 | 1.84922 | 0.0352 | 0.77862 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0559 | 1.46880 | 0.0693 | 1.82089 |
| | 250 (No. 60) | 0.0250 | 0.1211 | 4.19346 | 0.1047 | 3.62556 |
| | 177 (No. 80) | 0.0177 | 0.0550 | 2.69185 | 0.0485 | 2.37372 |
| | 125 (No. 120) | 0.0125 | 0.1186 | 8.20809 | 0.0986 | 6.82393 |
| | 74 (No. 200) | 0.0074 | 0.0799 | 8.69365 | 0.0897 | 9.75996 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0721 | 11.82555 | 0.0726 | 11.90756 |
| | 37 (No. 400) | 0.0037 | 0.0609 | 14.15565 | 0.0519 | 12.06368 |
| | 25 | 0.0025 | 0.0333 | 11.28968 | 0.0445 | 15.11323 |
| | 15.6 | 0.00156 | 0.0333 | 17.51186 | 0.0445 | 23.44274 |
| | 5 | 0.0005 | 0.0333 | 41.69652 | 0.0445 | 55.81819 |
| | | Sum | 1.00 | 126.077 | 1.00 | 146.479 |
| | | Estimated Maximum k (cm/sec) | | 5.98E-03 | | 4.43E-03 |
| | | Estimated Median k (cm/sec) | | 2.57E-03 | | 1.90E-03 |
| | | Estimated Minimum k (cm/sec) | | 8.49E-04 | | 6.29E-04 |
| | | % Gravel | 4.1 | | 4.4 | |
| | | % Sand | 72.6 | | 69.8 | |
| | | % Silt and Clay | 23.3 | | 25.8 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-133 (106 feet bgs) | | MW-135 (50 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0906 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.2316 | 0.14005 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0568 | 0.05351 | 0.0192 | 0.01809 |
| | 1/4" | 0.6351 | 0.0844 | 0.11289 | 0.0223 | 0.02983 |
| | 4,757 (No. 4) | 0.4757 | 0.0595 | 0.11121 | 0.0182 | 0.03402 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0660 | 0.17038 | 0.0198 | 0.05111 |
| | 2,000 (No. 10) | 0.2000 | 0.0800 | 0.32369 | 0.0462 | 0.18693 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0393 | 0.24113 | 0.0361 | 0.22150 |
| | 1000 (No. 18) | 0.1000 | 0.0326 | 0.28277 | 0.0574 | 0.49789 |
| | 707 (No. 25) | 0.0707 | 0.0310 | 0.38015 | 0.0768 | 0.94180 |
| | 500 (No. 35) | 0.0500 | 0.0252 | 0.43687 | 0.0898 | 1.55677 |
| | 420 (No. 40) | 0.0420 | 0.0076 | 0.16811 | 0.0632 | 1.39798 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0206 | 0.54127 | 0.0520 | 1.36632 |
| | 250 (No. 60) | 0.0250 | 0.0371 | 1.28470 | 0.1007 | 3.48705 |
| | 177 (No. 80) | 0.0177 | 0.0108 | 0.52858 | 0.0478 | 2.33946 |
| | 125 (No. 120) | 0.0125 | 0.0364 | 2.51918 | 0.0871 | 6.02803 |
| | 74 (No. 200) | 0.0074 | 0.0247 | 2.68752 | 0.0734 | 7.98641 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0176 | 2.88668 | 0.0587 | 9.62774 |
| | 37 (No. 400) | 0.0037 | 0.0128 | 2.97524 | 0.0390 | 9.06519 |
| | 25 | 0.0025 | 0.0118 | 4.01587 | 0.0307 | 10.42994 |
| | 15.6 | 0.00156 | 0.0118 | 6.22917 | 0.0307 | 16.17830 |
| | 5 | 0.0005 | 0.0118 | 14.83193 | 0.0307 | 38.52123 |
| | | Sum | 1.00 | 40.921 | 1.00 | 109.966 |
| | | Estimated Maximum k (cm/sec) | | 5.68E-02 | | 7.86E-03 |
| | | Estimated Median k (cm/sec) | | 2.44E-02 | | 3.37E-03 |
| | | Estimated Minimum k (cm/sec) | | 8.06E-03 | | 1.12E-03 |
| | | % Gravel | 52.3 | | 6.0 | |
| | | % Sand | 41.1 | | 75.0 | |
| | | % Silt and Clay | 6.6 | | 19.0 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-137 (115 feet bgs) | | MW-138 (65 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0554 | 0.03350 | 0.0467 | 0.02824 |
| | 3/8" | 0.9500 | 0.0090 | 0.00848 | 0.0113 | 0.01065 |
| | 1/4" | 0.6351 | 0.0337 | 0.04508 | 0.0178 | 0.02381 |
| | 4,757 (No. 4) | 0.4757 | 0.0137 | 0.02561 | 0.0204 | 0.03813 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0107 | 0.02762 | 0.0243 | 0.06273 |
| | 2,000 (No. 10) | 0.2000 | 0.0215 | 0.08699 | 0.0307 | 0.12422 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0187 | 0.11474 | 0.0247 | 0.15155 |
| | 1000 (No. 18) | 0.1000 | 0.0258 | 0.22379 | 0.0291 | 0.25241 |
| | 707 (No. 25) | 0.0707 | 0.0536 | 0.65729 | 0.0444 | 0.54448 |
| | 500 (No. 35) | 0.0500 | 0.1169 | 2.02657 | 0.0696 | 1.20658 |
| | 420 (No. 40) | 0.0420 | 0.1216 | 2.68978 | 0.0466 | 1.03079 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.1293 | 3.39742 | 0.0541 | 1.42150 |
| | 250 (No. 60) | 0.0250 | 0.2037 | 7.05374 | 0.1479 | 5.12149 |
| | 177 (No. 80) | 0.0177 | 0.0291 | 1.42423 | 0.1077 | 5.27113 |
| | 125 (No. 120) | 0.0125 | 0.0509 | 3.52270 | 0.0931 | 6.44328 |
| | 74 (No. 200) | 0.0074 | 0.0338 | 3.67767 | 0.0629 | 6.84394 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0245 | 4.01839 | 0.0696 | 11.41551 |
| | 37 (No. 400) | 0.0037 | 0.0140 | 3.25417 | 0.0448 | 10.41335 |
| | 25 | 0.0025 | 0.0114 | 3.86881 | 0.0181 | 6.14258 |
| | 15.6 | 0.00156 | 0.0114 | 6.00106 | 0.0181 | 9.52800 |
| | 5 | 0.0005 | 0.0114 | 14.28879 | 0.0181 | 22.68658 |
| | | Sum | 1.00 | 56.446 | 1.00 | 88.761 |
| | | Estimated Maximum k (cm/sec) | | 2.98E-02 | | 1.21E-02 |
| | | Estimated Median k (cm/sec) | | 1.28E-02 | | 5.18E-03 |
| | | Estimated Minimum k (cm/sec) | | 4.24E-03 | | 1.71E-03 |
| | | % Gravel | 11.2 | | 9.6 | |
| | | % Sand | 81.6 | | 73.5 | |
| | | % Silt and Clay | 7.3 | | 16.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-138 (115 feet bgs) | | MW-139 (80 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.1147 | 0.06936 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0404 | 0.03806 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0177 | 0.02367 | 0.0000 | 0.00000 |
| | 4,757 (No. 4) | 0.4757 | 0.0245 | 0.04579 | 0.0032 | 0.00598 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0161 | 0.04156 | 0.0019 | 0.00490 |
| | 2,000 (No. 10) | 0.2000 | 0.0256 | 0.10358 | 0.0040 | 0.01618 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0238 | 0.14603 | 0.0031 | 0.01902 |
| | 1000 (No. 18) | 0.1000 | 0.0429 | 0.37211 | 0.0085 | 0.07373 |
| | 707 (No. 25) | 0.0707 | 0.0787 | 0.96510 | 0.0403 | 0.49420 |
| | 500 (No. 35) | 0.0500 | 0.1212 | 2.10112 | 0.1556 | 2.69747 |
| | 420 (No. 40) | 0.0420 | 0.0895 | 1.97973 | 0.1689 | 3.73605 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0909 | 2.38844 | 0.1299 | 3.41318 |
| | 250 (No. 60) | 0.0250 | 0.1487 | 5.14920 | 0.1631 | 5.64784 |
| | 177 (No. 80) | 0.0177 | 0.0264 | 1.29209 | 0.0491 | 2.40309 |
| | 125 (No. 120) | 0.0125 | 0.0356 | 2.46381 | 0.0594 | 4.11097 |
| | 74 (No. 200) | 0.0074 | 0.0314 | 3.41653 | 0.0434 | 4.72221 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.0264 | 4.33002 | 0.0484 | 7.93837 |
| | 37 (No. 400) | 0.0037 | 0.0118 | 2.74280 | 0.0377 | 8.76302 |
| | 25 | 0.0025 | 0.0113 | 3.83487 | 0.0279 | 9.45708 |
| | 15.6 | 0.00156 | 0.0113 | 5.94842 | 0.0279 | 14.66926 |
| | 5 | 0.0005 | 0.0113 | 14.16345 | 0.0279 | 34.92815 |
| | | Sum | 1.00 | 51.616 | 1.00 | 103.101 |
| | | Estimated Maximum k (cm/sec) | | 3.57E-02 | | 8.94E-03 |
| | | Estimated Median k (cm/sec) | | 1.53E-02 | | 3.84E-03 |
| | | Estimated Minimum k (cm/sec) | | 5.07E-03 | | 1.27E-03 |
| | | % Gravel | 19.7 | | 0.3 | |
| | | % Sand | 73.1 | | 82.7 | |
| | | % Silt and Clay | 7.2 | | 17.0 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

## Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-140 (80 - 80.5 feet bgs) | | MW-140 (100 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.1104 | 0.06676 |
| | 3/8" | 0.9500 | 0.0345 | 0.03250 | 0.0388 | 0.03655 |
| | 1/4" | 0.6351 | 0.0238 | 0.03183 | 0.0269 | 0.03598 |
| | 4,757 (No. 4) | 0.4757 | 0.0091 | 0.01701 | 0.0085 | 0.01589 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0112 | 0.02891 | 0.0077 | 0.01988 |
| | 2,000 (No. 10) | 0.2000 | 0.0132 | 0.05341 | 0.0156 | 0.06312 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0097 | 0.05952 | 0.0219 | 0.13437 |
| | 1000 (No. 18) | 0.1000 | 0.0133 | 0.11536 | 0.0542 | 0.47013 |
| | 707 (No. 25) | 0.0707 | 0.0184 | 0.22564 | 0.1483 | 1.81860 |
| | 500 (No. 35) | 0.0500 | 0.0397 | 0.68824 | 0.1829 | 3.17074 |
| | 420 (No. 40) | 0.0420 | 0.0315 | 0.69678 | 0.0762 | 1.68553 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0304 | 0.79877 | 0.0572 | 1.50296 |
| | 250 (No. 60) | 0.0250 | 0.1023 | 3.54245 | 0.1413 | 4.89295 |
| | 177 (No. 80) | 0.0177 | 0.0736 | 3.60218 | 0.0286 | 1.39976 |
| | 125 (No. 120) | 0.0125 | 0.0994 | 6.87929 | 0.0268 | 1.85478 |
| | 74 (No. 200) | 0.0074 | 0.1024 | 11.14180 | 0.0261 | 2.83985 |
| Silt and Clay | 53 (No. 270) | 0.0053 | 0.1257 | 20.61681 | 0.0111 | 1.82058 |
| | 37 (No. 400) | 0.0037 | 0.0726 | 16.87521 | 0.0051 | 1.18545 |
| | 25 | 0.0025 | 0.0630 | 21.39156 | 0.0042 | 1.41404 |
| | 15.6 | 0.00156 | 0.0630 | 33.18130 | 0.0042 | 2.19337 |
| | 5 | 0.0005 | 0.0630 | 79.00613 | 0.0042 | 5.22251 |
| | | Sum | 1.00 | 198.985 | 1.00 | 31.844 |
| | | Estimated Maximum k (cm/sec) | | 2.40E-03 | | 9.38E-02 |
| | | Estimated Median k (cm/sec) | | 1.03E-03 | | 4.02E-02 |
| | | Estimated Minimum k (cm/sec) | | 3.41E-04 | | 1.33E-02 |
| | | % Gravel | 6.7 | | 18.5 | |
| | | % Sand | 54.5 | | 78.7 | |
| | | % Silt and Clay | 38.7 | | 2.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99x10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2*SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | B-212 (54 feet bgs) | | MW-136 (77 feet bgs) | | MW-137 (50 feet bgs) | |
|---|---|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Gravel | 1/4" | 0.6351 | 0.000 | – | 0.000 | – | 0.000 | – |
| | 4,757 (No. 4) | 0.4757 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| Course Sand | 3,364 (No. 6) | 0.3364 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 2,000 (No. 10) | 0.2000 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| Medium Sand | 1,189 (No. 16) | 0.1189 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 841 (No. 20) | 0.0841 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 707 (No. 25) | 0.0707 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 595 (No. 30) | 0.0595 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 500 (No. 35) | 0.0500 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 420 (No. 40) | 0.0420 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 297 (No. 50) | 0.0297 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 250 (No. 60) | 0.0250 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 210 (No. 70) | 0.0210 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 177 (No. 80) | 0.0177 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 149 (No. 100) | 0.0149 | 0.000 | 0.00000 | 0.000 | 0.00000 | 0.000 | 0.00000 |
| | 125 (No. 120) | 0.0125 | 0.0007 | 0.05194 | 0.0007 | 0.05194 | 0.000 | 0.00000 |
| | 105 (No. 140) | 0.0105 | 0.0025 | 0.22089 | 0.0026 | 0.22973 | 0.000 | 0.00000 |
| | 88 (No. 170) | 8.80E-03 | 0.0050 | 0.52655 | 0.0032 | 0.33699 | 0.0001 | 0.01053 |
| | 74 (No. 200) | 7.40E-03 | 0.0081 | 1.01560 | 0.0021 | 0.26330 | 0.0006 | 0.07523 |
| Silt | 63 (No. 230) | 6.30E-03 | 0.0128 | 1.89423 | 0.0014 | 0.20718 | 0.0018 | 0.26638 |
| | 53 (No. 270) | 5.30E-03 | 0.0197 | 3.44817 | 0.0021 | 0.36757 | 0.0037 | 0.64763 |
| | 44.2 (No. 325) | 4.42E-03 | 0.0276 | 5.77132 | 0.0042 | 0.87824 | 0.0066 | 1.38010 |
| | 37.2 (No. 400) | 3.72E-03 | 0.0367 | 9.15045 | 0.0060 | 1.49599 | 0.0124 | 3.09170 |
| | 31.3 (No. 450) | 3.13E-03 | 0.0458 | 13.56804 | 0.0069 | 2.04409 | 0.0206 | 6.10266 |
| | 25.0 (No. 500) | 2.50E-03 | 0.0539 | 19.57107 | 0.0084 | 3.05004 | 0.0295 | 10.71144 |
| | 20.1 (No. 635) | 2.01E-03 | 0.0766 | 34.67842 | 0.0157 | 7.10772 | 0.0485 | 21.95697 |
| | 15.6 | 1.56E-03 | 0.0817 | 46.97012 | 0.0244 | 14.02780 | 0.0585 | 33.63222 |
| | 11.0 | 1.10E-03 | 0.0931 | 72.99594 | 0.0358 | 28.06933 | 0.0750 | 58.80446 |
| | 7.81 | 7.81E-04 | 0.1275 | 141.14327 | 0.0735 | 81.36494 | 0.1235 | 136.71525 |
| | 5.00 | 5.00E-04 | 0.1094 | 181.34231 | 0.1069 | 177.19829 | 0.1316 | 218.14121 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle | Screen | Screen | B-212 (54 feet bgs) | | MW-136 (77 feet bgs) | | MW-137 (50 feet bgs) | |
|---|---|---|---|---|---|---|---|---|
| Type | Size (microns) | Size (cm) | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| | 1.95 | 1.95E-04 | 0.1044 | 362.86579 | 0.1623 | 564.11032 | 0.1517 | 527.26762 |
| Clay | 0.977 | 0.0000977 | 0.1104 | 846.85260 | 0.3055 | 2343.41910 | 0.2019 | 1548.72772 |
| | 0.488 | 0.0000488 | 0.0502 | 769.44312 | 0.1532 | 2348.18099 | 0.0850 | 1302.84193 |
| | 0.375 | 0.0000375 | 0.0339 | 804.50637 | 0.0850 | 2017.19886 | 0.0491 | 1165.22899 |
| | | Sum | 1.00 | 3316.016 | 1.00 | 7589.602 | 1.00 | 5035.602 |
| | | Estimated Maximum k (cm/sec) | | 8.65E-06 | | 1.65E-06 | | 3.75E-06 |
| | | Estimated Median k (cm/sec) | | 3.71E-06 | | 7.08E-07 | | 1.61E-06 |
| | | Estimated Minimum k (cm/sec) | | 1.23E-06 | | 2.34E-07 | | 5.32E-07 |
| | | % Gravel | 0.0 | | 0.0 | | 0.0 | |
| | | % Sand | 1.6 | | 0.9 | | 0.1 | |
| | | % Silt and Clay | 98.4 | | 99.1 | | 99.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99x10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2*SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (microns) | Screen Size (cm) | B-206 (48 feet bgs) | |
|---|---|---|---|---|---|
| | | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| | 2" | 50800 | 5.08 | 0.000 | – |
| Coarse | 1½" | 38100 | 3.81 | 0.000 | 0.00000 |
| Gravel | 1" | 25400 | 2.54 | 0.000 | 0.00000 |
| | ¾" | 19050 | 1.905 | 0.000 | 0.00000 |
| | ½" | 12700 | 1.27 | 0.000 | 0.00000 |
| Fine Gravel | 3/8" | 9525 | 0.9525 | 0.000 | 0.00000 |
| | 4,750 (No. 4) | 4750 | 0.4750 | 0.030 | 0.04765 |
| Coarse Sand | 2,000 (No. 10) | 2000 | 0.2000 | 0.056 | 0.19710 |
| Medium | 850 (No. 20) | 850 | 0.0850 | 0.072 | 0.59802 |
| Sand | 425 (No. 40) | 425 | 0.0425 | 0.163 | 2.88942 |
| | 250 (No. 60) | 250 | 0.0250 | 0.236 | 7.59047 |
| Fine Sand | 150 (No. 100) | 150 | 0.0150 | 0.154 | 8.31723 |
| | 75 (No. 200) | 75 | 0.0075 | 0.089 | 8.92458 |
| | 32 | 32 | 0.0032 | 0.065 | 14.31609 |
| | 22 | 22 | 0.0022 | 0.023 | 8.93112 |
| Silt and | 13 | 13 | 0.0013 | 0.031 | 19.15255 |
| Clay | 9 | 9 | 0.0009 | 0.015 | 14.26540 |
| | 7 | 7 | 0.0007 | 0.012 | 15.37567 |
| | 3.2 | 3.2 | 0.00032 | 0.015 | 33.89280 |
| | 1.3 | 1.3 | 0.00013 | 0.038 | 201.32917 |
| | | | Sum | 1.00 | 335.827 |
| | | | Estimated Maximum k (cm/sec) | | 8.43E-04 |
| | | | Estimated Median k (cm/sec) | | 3.62E-04 |
| | | | Estimated Minimum k (cm/sec) | | 1.20E-04 |
| | | | % Gravel | 3.0 | |
| | | | % Sand | 77.0 | |
| | | | % Silt and Clay | 19.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-145 (80 feet bgs) | | MW-147 (81 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.2900 | 0.17536 |
| | 3/8" | 0.9500 | 0.0080 | 0.00754 | 0.0880 | 0.08290 |
| | 1/4" | 0.6351 | 0.0260 | 0.03478 | 0.0960 | 0.12840 |
| | 4,757 (No. 4) | 0.4757 | 0.0110 | 0.02056 | 0.0430 | 0.08037 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0120 | 0.03098 | 0.0530 | 0.13682 |
| | 2,000 (No. 10) | 0.2000 | 0.0160 | 0.06474 | 0.0480 | 0.19421 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0120 | 0.07363 | 0.0290 | 0.17794 |
| | 1000 (No. 18) | 0.1000 | 0.0120 | 0.10409 | 0.0260 | 0.22552 |
| | 707 (No. 25) | 0.0707 | 0.0180 | 0.22073 | 0.0300 | 0.36789 |
| | 500 (No. 35) | 0.0500 | 0.0350 | 0.60676 | 0.0430 | 0.74545 |
| | 420 (No. 40) | 0.0420 | 0.0230 | 0.50876 | 0.0220 | 0.48664 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0330 | 0.86709 | 0.0250 | 0.65689 |
| | 250 (No. 60) | 0.0250 | 0.0810 | 2.80487 | 0.0420 | 1.45438 |
| | 177 (No. 80) | 0.0177 | 0.0710 | 3.47493 | 0.0260 | 1.27251 |
| | 125 (No. 120) | 0.0125 | 0.0480 | 3.32199 | 0.0170 | 1.17654 |
| Silt | 5 | 0.0005 | 0.1530 | 82.72802 | 0.0240 | 12.97694 |
| Clay | 2 | 0.0002 | 0.1210 | 414.27492 | 0.0200 | 68.47519 |
| | 1 | 0.0001 | 0.1740 | 1302.96614 | 0.0130 | 97.34804 |
| | 0.5 | 0.00005 | 0.0920 | 1376.89453 | 0.0300 | 448.98735 |
| | 0.4 | 0.00004 | 0.0540 | 1221.19265 | 0.0350 | 791.51376 |
| | | Sum | 1.00 | 4410.198 | 1.00 | 1426.663 |
| | | Estimated Maximum k (cm/sec) | | 4.89E-06 | | 4.67E-05 |
| | | Estimated Median k (cm/sec) | | 2.10E-06 | | 2.00E-05 |
| | | Estimated Minimum k (cm/sec) | | 6.94E-07 | | 6.63E-06 |
| | | % Gravel | 4.5 | | 51.7 | |
| | | % Sand | 36.1 | | 36.1 | |
| | | % Silt | 15.3 | | 2.4 | |
| | | % Clay | 44.1 | | 9.8 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-148 (60 feet bgs) | | MW-153 (80 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0170 | 0.01028 |
| | 3/8" | 0.9500 | 0.0000 | 0.00000 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0000 | 0.00000 | 0.0130 | 0.01739 |
| | 4,757 (No. 4) | 0.4757 | 0.0000 | 0.00000 | 0.0140 | 0.02617 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0010 | 0.00258 | 0.0140 | 0.03614 |
| | 2,000 (No. 10) | 0.2000 | 0.0010 | 0.00405 | 0.0220 | 0.08901 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0020 | 0.01227 | 0.0390 | 0.23929 |
| | 1000 (No. 18) | 0.1000 | 0.0110 | 0.09541 | 0.0250 | 0.21685 |
| | 707 (No. 25) | 0.0707 | 0.0490 | 0.60089 | 0.0410 | 0.50278 |
| | 500 (No. 35) | 0.0500 | 0.1560 | 2.70441 | 0.0600 | 1.04016 |
| | 420 (No. 40) | 0.0420 | 0.1260 | 2.78711 | 0.0350 | 0.77420 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.1700 | 4.46683 | 0.0410 | 1.07729 |
| | 250 (No. 60) | 0.0250 | 0.2840 | 9.83437 | 0.0860 | 2.97801 |
| | 177 (No. 80) | 0.0177 | 0.0880 | 4.30696 | 0.0670 | 3.27916 |
| | 125 (No. 120) | 0.0125 | 0.0280 | 1.93783 | 0.0450 | 3.11437 |
| Silt | 5 | 0.0005 | 0.0040 | 2.16282 | 0.3720 | 201.14264 |
| Clay | 2 | 0.0002 | 0.0170 | 58.20391 | 0.0300 | 102.71279 |
| | 1 | 0.0001 | 0.0430 | 321.99738 | 0.0380 | 284.55582 |
| | 0.5 | 0.00005 | 0.0100 | 149.66245 | 0.0250 | 374.15612 |
| | 0.4 | 0.00004 | 0.0100 | 226.14679 | 0.0160 | 361.83486 |
| | | Sum | 1.00 | 784.926 | 1.00 | 1337.803 |
| | | Estimated Maximum k (cm/sec) | | 1.54E-04 | | 5.31E-05 |
| | | Estimated Median k (cm/sec) | | 6.62E-05 | | 2.28E-05 |
| | | Estimated Minimum k (cm/sec) | | 2.19E-05 | | 7.54E-06 |
| | | % Gravel | 0.0 | | 4.4 | |
| | | % Sand | 91.6 | | 47.5 | |
| | | % Silt | 0.4 | | 37.2 | |
| | | % Clay | 8.0 | | 10.9 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-153 (90 to 100 feet bgs) | | MW-158A (100 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0010 | 0.00094 | 0.0400 | 0.03768 |
| | 1/4" | 0.6351 | 0.0000 | 0.00000 | 0.1190 | 0.15917 |
| | 4,757 (No. 4) | 0.4757 | 0.0000 | 0.00000 | 0.1070 | 0.20000 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0000 | 0.00000 | 0.1500 | 0.38723 |
| | 2,000 (No. 10) | 0.2000 | 0.0020 | 0.00809 | 0.1660 | 0.67165 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0060 | 0.03681 | 0.1320 | 0.80992 |
| | 1000 (No. 18) | 0.1000 | 0.0160 | 0.13878 | 0.0730 | 0.63320 |
| | 707 (No. 25) | 0.0707 | 0.0650 | 0.79709 | 0.0580 | 0.71125 |
| | 500 (No. 35) | 0.0500 | 0.2310 | 4.00460 | 0.0270 | 0.46807 |
| | 420 (No. 40) | 0.0420 | 0.1640 | 3.62766 | 0.0170 | 0.37604 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.1590 | 4.17780 | 0.0090 | 0.23648 |
| | 250 (No. 60) | 0.0250 | 0.1850 | 6.40619 | 0.0050 | 0.17314 |
| | 177 (No. 80) | 0.0177 | 0.0680 | 3.32811 | 0.0040 | 0.19577 |
| | 125 (No. 120) | 0.0125 | 0.0290 | 2.00704 | 0.0030 | 0.20762 |
| Silt | 5 | 0.0005 | 0.0240 | 12.97694 | 0.0490 | 26.49459 |
| Clay | 2 | 0.0002 | 0.0140 | 47.93264 | 0.0110 | 37.66136 |
| | 1 | 0.0001 | 0.0180 | 134.78960 | 0.0170 | 127.30129 |
| | 0.5 | 0.00005 | 0.0100 | 149.66245 | 0.0080 | 119.72996 |
| | 0.4 | 0.00004 | 0.0070 | 158.30275 | 0.0050 | 113.07339 |
| | | Sum | 1.00 | 528.198 | 1.00 | 429.528 |
| | | Estimated Maximum k (cm/sec) | | 3.41E-04 | | 5.15E-04 |
| | | Estimated Median k (cm/sec) | | 1.46E-04 | | 2.21E-04 |
| | | Estimated Minimum k (cm/sec) | | 4.84E-05 | | 7.31E-05 |
| | | % Gravel | 0.1 | | 26.6 | |
| | | % Sand | 92.5 | | 64.4 | |
| | | % Silt | 2.4 | | 4.9 | |
| | | % Clay | 4.9 | | 4.1 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

2. Frac retained = fraction (by weight) retained on screen

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-159 (25 feet bgs) | | MW-160 (100 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0000 | 0.00000 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0000 | 0.00000 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0000 | 0.00000 | 0.0000 | 0.00000 |
| | 4,757 (No. 4) | 0.4757 | 0.0000 | 0.00000 | 0.0030 | 0.00561 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0020 | 0.00516 | 0.0010 | 0.00258 |
| | 2,000 (No. 10) | 0.2000 | 0.0110 | 0.04451 | 0.0020 | 0.00809 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0130 | 0.07976 | 0.0020 | 0.01227 |
| | 1000 (No. 18) | 0.1000 | 0.0120 | 0.10409 | 0.0050 | 0.04337 |
| | 707 (No. 25) | 0.0707 | 0.0170 | 0.20847 | 0.0110 | 0.13489 |
| | 500 (No. 35) | 0.0500 | 0.0370 | 0.64143 | 0.0430 | 0.74545 |
| | 420 (No. 40) | 0.0420 | 0.0250 | 0.55300 | 0.0520 | 1.15023 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0340 | 0.89337 | 0.1010 | 2.65382 |
| | 250 (No. 60) | 0.0250 | 0.0820 | 2.83950 | 0.3730 | 12.91627 |
| | 177 (No. 80) | 0.0177 | 0.0860 | 4.20907 | 0.1750 | 8.56498 |
| | 125 (No. 120) | 0.0125 | 0.0740 | 5.12140 | 0.0500 | 3.46041 |
| Silt | 5 | 0.0005 | 0.4180 | 226.01511 | 0.1190 | 64.34402 |
| Clay | 2 | 0.0002 | 0.0750 | 256.78197 | 0.0170 | 58.20391 |
| | 1 | 0.0001 | 0.0620 | 464.27529 | 0.0250 | 187.20778 |
| | 0.5 | 0.00005 | 0.0290 | 434.02110 | 0.0120 | 179.59494 |
| | 0.4 | 0.00004 | 0.0230 | 520.13761 | 0.0090 | 203.53211 |
| | | Sum | 1.00 | 1915.931 | 1.00 | 722.581 |
| | | Estimated Maximum k (cm/sec) | | 2.59E-05 | | 1.82E-04 |
| | | Estimated Median k (cm/sec) | | 1.11E-05 | | 7.81E-05 |
| | | Estimated Minimum k (cm/sec) | | 3.68E-06 | | 2.58E-05 |
| | | % Gravel | 0.0 | | 0.3 | |
| | | % Sand | 39.3 | | 81.5 | |
| | | % Silt | 41.8 | | 11.9 | |
| | | % Clay | 18.9 | | 6.3 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-160 (127.5 feet bgs) | | MW-161 (100 feet bgs) | |
|---|---|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0690 | 0.04172 | 0.0000 | 0.00000 |
| | 3/8" | 0.9500 | 0.0270 | 0.02544 | 0.0000 | 0.00000 |
| | 1/4" | 0.6351 | 0.0590 | 0.07892 | 0.0090 | 0.01204 |
| | 4,757 (No. 4) | 0.4757 | 0.0350 | 0.06542 | 0.0210 | 0.03925 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0410 | 0.10584 | 0.0130 | 0.03356 |
| | 2,000 (No. 10) | 0.2000 | 0.0700 | 0.28323 | 0.0210 | 0.08497 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0540 | 0.33133 | 0.0170 | 0.10431 |
| | 1000 (No. 18) | 0.1000 | 0.0480 | 0.41635 | 0.0260 | 0.22552 |
| | 707 (No. 25) | 0.0707 | 0.0400 | 0.49052 | 0.0490 | 0.60089 |
| | 500 (No. 35) | 0.0500 | 0.0480 | 0.83213 | 0.1080 | 1.87228 |
| | 420 (No. 40) | 0.0420 | 0.0210 | 0.46452 | 0.1000 | 2.21199 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0240 | 0.63061 | 0.1570 | 4.12525 |
| | 250 (No. 60) | 0.0250 | 0.0460 | 1.59289 | 0.2950 | 10.21528 |
| | 177 (No. 80) | 0.0177 | 0.0380 | 1.85982 | 0.0930 | 4.55167 |
| | 125 (No. 120) | 0.0125 | 0.0310 | 2.14545 | 0.0220 | 1.52258 |
| Silt | 5 | 0.0005 | 0.2120 | 114.62968 | 0.0260 | 14.05836 |
| Clay | 2 | 0.0002 | 0.0310 | 106.13655 | 0.0110 | 37.66136 |
| | 1 | 0.0001 | 0.0540 | 404.36880 | 0.0180 | 134.78960 |
| | 0.5 | 0.00005 | 0.0320 | 478.91984 | 0.0090 | 134.69620 |
| | 0.4 | 0.00004 | 0.0190 | 429.67890 | 0.0060 | 135.68807 |
| | | Sum | 1.00 | 1543.098 | 1.00 | 482.493 |
| | | Estimated Maximum k (cm/sec) | | 3.99E-05 | | 4.08E-04 |
| | | Estimated Median k (cm/sec) | | 1.71E-05 | | 1.75E-04 |
| | | Estimated Minimum k (cm/sec) | | 5.67E-06 | | 5.80E-05 |
| | | % Gravel | 19.0 | | 3.0 | |
| | | % Sand | 46.1 | | 90.1 | |
| | | % Silt | 21.2 | | 2.6 | |
| | | % Clay | 13.6 | | 4.4 | |

Notes:

1. Kozeny-Carman Equation:

$$k = [\Theta^3/(1-\Theta)^2]*(1.99 \times 10^4)/\{(\Sigma[f_i/(d_{li}^{0.404} \times d_{si}^{0.595})])^2 * SF^2\}$$

where $\Theta$ = total porosity

$1.99 \times 10^4$ = constant incorporating unit weight and viscosity of water and the empirical Kozeny-Carmon coefficient (1/cm-sec)

$f_i$ = fraction of particles retained on the smaller sieve of adjacent sieve pairs (dimensionless)

$d_{li}$ = diameter of larger sieve in pair (cm)

$d_{si}$ = diameter of smaller sieve in pair (cm)

SF = grain shape factor (dimensionless)

3. Estimated shape factors:

| | |
|---|---|
| Rounded | 6.1 |
| Median | 6.25 |
| Worn | 6.4 |

4. Estimated porosities:

| | |
|---|---|
| Maximum | 0.40 |
| Median | 0.33 |
| Minimum | 0.25 |

# Table F-14

## Estimated Hydraulic Conductivity Based On Grain Size Analyses
## Former American Linen Supply
## 700 Dexter Avenue North, Seattle, Washington

| Particle Type | Screen Size (microns) | Screen Size (cm) | MW-161 (140 feet bgs) | |
|---|---|---|---|---|
| | | | Frac Retained | $f_i/(d_{li}^{0.404} \times d_{si}^{0.595})$ |
| Coarse Gravel | 1" | 2.5002 | 0.0000 | – |
| Fine Gravel | ½" | 1.2501 | 0.0150 | 0.00907 |
| | 3/8" | 0.9500 | 0.0090 | 0.00848 |
| | 1/4" | 0.6351 | 0.0750 | 0.10032 |
| | 4,757 (No. 4) | 0.4757 | 0.0550 | 0.10280 |
| Coarse Sand | 3,364 (No. 6) | 0.3364 | 0.0640 | 0.16522 |
| | 2,000 (No. 10) | 0.2000 | 0.0990 | 0.40056 |
| Medium Sand | 1414 (No. 14) | 0.1414 | 0.0670 | 0.41109 |
| | 1000 (No. 18) | 0.1000 | 0.0540 | 0.46839 |
| | 707 (No. 25) | 0.0707 | 0.0430 | 0.52731 |
| | 500 (No. 35) | 0.0500 | 0.0470 | 0.81479 |
| | 420 (No. 40) | 0.0420 | 0.0200 | 0.44240 |
| Fine Sand | 354 (No. 45) | 0.0354 | 0.0220 | 0.57806 |
| | 250 (No. 60) | 0.0250 | 0.0420 | 1.45438 |
| | 177 (No. 80) | 0.0177 | 0.0340 | 1.66405 |
| | 125 (No. 120) | 0.0125 | 0.0270 | 1.86862 |
| Silt | 5 | 0.0005 | 0.2130 | 115.17038 |
| Clay | 2 | 0.0002 | 0.0240 | 82.17023 |
| | 1 | 0.0001 | 0.0450 | 336.97400 |
| | 0.5 | 0.00005 | 0.0270 | 404.08861 |
| | 0.4 | 0.00004 | 0.0170 | 384.44954 |
| | | Sum | 1.00 | 1331.868 |
| | | Estimated Maximum k (cm/sec) | | 5.36E-05 |
| | | Estimated Median k (cm/sec) | | 2.30E-05 |
| | | Estimated Minimum k (cm/sec) | | 7.61E-06 |
| | | % Gravel | 15.4 | |
| | | % Sand | 51.9 | |
| | | % Silt | 21.3 | |
| | | % Clay | 11.3 | |

Notes:

# APPENDIX G

# 2017 AND 2018 INVESTIGATION FIELD PROCEDURES

# 1.0 FIELD PROCEDURES

This section describes the field procedures for soil and groundwater sample collection; well installation and development; field documentation; sample labeling, shipping, and custody; decontamination; and residuals management.

## 1.1 Soil Sampling Procedures

Prior to drilling, applicable permits and access agreements were procured, utilities were cleared at each drilling location, sampling equipment was properly decontaminated (see below), and applicable health and safety procedures were reviewed. The temporary borings and monitoring well borings were advanced using a Sonic rotary vibration drilling rig ("Sonic" rig) or a hollow stem auger drilling rig operated by a subcontracted drilling firm.

The Sonic method involves advancing an inner core barrel and an outer casing using the vibrations and hydraulics of the Sonic rig. During drilling for this investigation, the core barrel and outer casing were advanced in intervals ranging from 5 to 15 feet. The outer casing held the borehole open while the nominal 4-inch or 6-inch inner core barrel advanced ahead of the casing allowed continuous soil sampling. The retrieved soil cores were placed in plastic core bags, with soil samples collected continuously throughout the total depth of the boring. To collect fine-grained soil samples for laboratory hydraulic conductivity testing, the Sonic rig either advanced a Shelby tube or core barrel equipped with rings through the desired interval to retrieve a relatively undisturbed sample.

The hollow stem auger rig used 4¼-inch inside diameter, nominal 9-inch outside diameter augers to advance the borings in intervals ranging from 5 to 15 feet. Soil samples were collected by driving a split spoon sampler into the soil in front of the auger. Soil cuttings were brought up by the rotating auger and stockpiled in appropriate waste bins.

Temporary borings and monitoring well borings drilled in areas with deeper (greater than 40 feet bgs) historical PCE concentrations above 10 mg/kg were advanced past the zone in question using a step-casing technique. When drilling with a Sonic rig, step casing of these borings was done to minimize the potential for dragging highly contaminated soil into a lower stratigraphic zone while drilling. Cascade used the step casing technique in the following borings at approximately the following depths: temporary borings B-207 (55 feet bgs), B-210 (50 feet bgs), and B-211 (55 feet); and monitoring well borings MW-132 (55 feet bgs), MW-133 (62.5 feet bgs), and MW-135 (60 feet bgs). The driller step-cased by advancing an initial larger diameter Sonic casing (nominal 10-inch casing) to the predetermined depth, filling the casing with approximately 3 feet of bentonite chips, retracting the casing about 2 feet, waiting approximately 30 minutes for the bentonite to hydrate, and pumping out any significant water in the casing and replacing it with potable water (to the extent possible). Nominal 6-inch Sonic casing was then advanced through the larger casing and bentonite seal to sample below the step case depth.

During Sonic drilling, soil samples were collected at 5 to 15-foot intervals continuously during drilling from the highest point possible to the bottom of the hole. Samples were extracted from the coring tube into new plastic sleeves. During hollow stem auger drilling, soil samples were collected in a split spoon sampler at 5 to 15-foot intervals to the bottom of the hole. Split spoons

were decontaminated in between soil drives. PES observed the samples for staining, monitored for odors, screened for VOCs with a PID (in small, sealed plastic bags), and logged for lithologic characterization consistent with ASTM D-2488. Small 200-mesh screens were used to aid estimating the percentage of coarse (sand and gravel) and fine (silt) soil in the retrieved samples. All observations and measurements were recorded on a boring log form. Soil samples to be submitted for laboratory VOC and GRO analysis were collected using EPA Method 5035. Additional sample volume for physical or remediation parameter testing was collected using either decontaminated stainless steel or plastic sampling tools.

All non-dedicated sampling equipment was decontaminated between uses as described below, and field QA samples were collected as described below. The samples were placed in laboratory-supplied soil jars or laboratory-prepared volatile organics analysis ("VOA") vials, which were then placed in a chilled, insulated cooler. The samples were handled and shipped to ESC Lab Sciences ("ESC") as described below.

Upon drilling completion, the driller either backfilled each of the boreholes with bentonite grout or completed the boring by installing a groundwater monitoring well as described in below.

## 1.2 Groundwater

### Reconnaissance Groundwater Sampling

Reconnaissance groundwater samples were collected with a steel groundwater sampling screen advanced by the Sonic rig. The driller drove the sampler ahead of the drill casing in the desired sampling interval, retracted a sheath to expose the screen, waited for groundwater to flow into the screen, and collected a groundwater sample from the screened interval with a previously decontaminated stainless-steel bailer. Preserved VOA vials were filled by allowing the sample water to pour down the inside of the vials and without splashing onto the base. The VOA vials were filled to eliminate any headspace and the lids were secured tightly. All sample containers were prepared and provided by ESC.

After sample collection from each interval, the temporary screen was removed from the borehole, and drilling was resumed. The steel groundwater sampling screen and stainless-steel bailer were decontaminated after each use, as described below. Handling of decontamination and purge water are described below.

### Monitoring Well Installation

Groundwater monitoring wells were installed in accordance with Chapter 173-160 of the WAC. The wells were constructed with nominal 2-inch-diameter, flush-threaded Schedule 40 PVC, with 10-foot-long 0.020-inch slot width screens and 10 x 20 silica sand outside of the screen. The filter pack in each well extended to approximately 2 feet above the top of the well screen, 2 to 5 feet of bentonite chips was placed above the filter pack, and bentonite grout was placed from the top of the bentonite chips to within 10 feet of the ground surface. The remaining annular space was filled with hydrated bentonite chips to within 3 feet of the ground surface. All materials were placed concurrent with casing withdrawal. The surface monument protecting each well was completed flush with grade.

## Injection Well Installation

Injection wells were installed using a hollow stem auger drill rig consistent with Chapter 173-160 WAC. The wells were constructed with nominal 2-inch-diameter, flush-threaded Schedule 40 PVC, with either 15 or 20-foot-long 0.020-inch slot width screens and 10 x 20 silica sand outside of the screen. The filter pack in each well extended to approximately 1 to 2 feet above the top of the well screen, bentonite pellets were placed above the filter pack, followed by bentonite chips and cement grout to within 2 feet of the ground surface. The remaining annular space was sealed with concrete. The surface monument protecting each well was completed flush with grade. All materials were placed immediately concurrent with auger withdrawal.

## Monitoring and Injection Well Development

New monitoring and injection wells were developed by Cascade Drilling ("Cascade") prior to initial well monitoring. Development involved repeated surging (with a surge block or bailer) and pumping until the color of the discharge water did not change with additional development. Turbidity was measured and when possible, the well was developed until the measured turbidity stabilized. If the well pumped dry during development, it was allowed to refill and then pumped at a low flow rate until the turbidity stabilized or the well pumped dry again. All development water was handled as described below.

## Groundwater Level Measurements

Monitoring well groundwater levels were measured using the following procedures:

1. The well surface monument was opened, and any standing water and debris (i.e., sediment, vegetation, or refuse) were removed prior to removing the well cap;
2. The well was opened by carefully removing the cap, and the riser was allowed to vent if under pressure or vacuum. The time at which the well was initially vented to the atmosphere (i.e., time of well cap removal) and the initial conditions (i.e., well over-pressurized or under-pressurized relative to the atmosphere) were documented. If needed, the time needed for water level equilibration after cap removal was checked by measuring the water level in a well, allowing the well to vent for a more extended period (at least 1 hour), and measuring the water level a second time.
3. After opening and venting the well, the initial water level was measured at the surveyed measuring point ("MP") on the north side of the top of the PVC casing to the nearest 0.01 foot using an electronic water level probe.
4. The water level measurement in each well was confirmed in the field to ensure that the reading was accurate. All results (times, measured values, etc.) were documented.
5. The portion of the water level probe that contacted water was rinsed with distilled water between each well to avoid cross contamination.
6. The well cap was replaced, and the surface monument was replaced and tightly sealed upon completing the water level measurements.

PES instrumented nine wells (shallow well R-MW3; intermediate wells MW116, MW119, and MW130; and deep wells FMW-129, MW102, MW105, MW113, and MW122) with pressure transducers to monitor the effects of groundwater extraction at the City Investors XI LLC ("City Investors") Block 37 property. The transducers consisted of Instrumentation Northwest LevelSCOUT sensors and dataloggers with a sensor range of 30 pounds per square inch absolute ("psia"). Since the transducers were non-vented, a BaroSCOUT barometric pressure sensor (30 psi) and datalogger was also used to allow the data to be corrected for the effects of barometric pressure. The transducers were programmed to record data hourly.

**Groundwater Sampling**

Groundwater samples were collected from the monitoring wells and select injection wells after well development using low-flow sampling procedures.

**Sampling Preparation.** Prior to the sampling events, the necessary field equipment, laboratory-supplied sample bottles, and documentation materials were acquired and prepared. Laboratory-supplied sample bottles were inspected. The depth to water in the well was measured before sampling using the procedures outlined above.

**Low-Flow Purging.** For wells with water levels less than 20 feet below the top of casing, a peristaltic sampling pump fitted with disposable polyethylene and silicon (at the pump head only) tubing was used to collect samples. New (disposable) polyethylene tubing was slowly lowered into the well until the intake was at the mid-point of the well screen. All newly installed monitoring wells had water levels greater than 20 feet below the top of casing and required sampling with a bladder pump. A decontaminated stainless-steel bladder pump with dedicated polyethylene tubing attached to the pump head was used to collect samples. The bladder pump and attached tubing were slowly lowered into the well until the pump intake was at the mid-point of the well screen. The initial water level prior to purging was recorded.

Prior to sampling, each well was purged until field parameter measurements stabilized, as discussed below. The purging start time was recorded, and the pump was started. Pumping rates during purging were measured with a stopwatch and graduated cylinder, graduated cup, or VOA vial, depending on flow rate. Low flow purging was conducted at pumping rates less than 500 milliliters per minute ("mL/min").

During purging, the water level was measured approximately every 5 minutes. If possible, a drawdown of 0.3 feet or less was maintained in each well. The water level in the well was maintained above the intake at all times. The process was then repeated until the field parameters stabilized. All measured water levels and pumping rate changes were recorded on a Groundwater Sampling Form.

**Field Parameter Measurements.** All meters were calibrated at the start of each work period, and meters were recalibrated, as necessary, during or after the work period. Field parameter measurements were recorded approximately every 5 minutes during purging. Field parameters included pH, specific conductance, temperature, dissolved oxygen ("DO"), and oxidation-reduction potential ("ORP"). Measurements were recorded to the following standards:

- pH to ±0.01 units;

- Specific conductance to ±1 micromho;
- Temperature to ±0.1°C;
- DO to ±0.1 milligrams per liter ("mg/L"); and
- ORP to ±1 millivolts.

Samples were not collected until these parameters stabilized for three consecutive readings to the following criteria:

- pH to ±0.1 pH unit;
- Conductivity to ±3 percent;
- Temperature to ±3 percent; and
- DO to ±10 percent.

ORP measurements were not used to determine stability. Field parameter measurements were recorded on a Groundwater Sampling Form.

**Sample Collection.** Upon completion of purging, samples were collected from the discharge end of the pump tubing. The same pump rate used at the end of well purging was used during sample collection. Groundwater samples were submitted to ESC for analysis of VOCs and/or GRO. VOA vials were filled by allowing the sample water to pour down the inside of the vials without splashing onto the base. The containers were filled to eliminate any headspace and the seal/lid was secured tightly. All sample containers were prepared and provided by ESC.

After collection of the sample from each well, the pump was disconnected from the tubing, the well cap was replaced, and the well cap or monument locked. Consumable plastic bladders and plates were placed in a sealed plastic bag and labeled for future use in the same well. The bladder pump was disassembled and decontaminated after sampling each well as described below. Decontamination and purge water were handled consistent with the residuals management procedures outlined below.

## 1.3 Field Quality Assurance

Field QA soil and water samples were collected used to evaluate the efficiency of field decontamination and processing procedures. Field QA samples consisted of field duplicates, equipment rinsate blanks, and transport (trip) blanks. All field QA samples were documented in the field notes. Field duplicates and equipment rinsate blanks were submitted with artificial sample labels so that the laboratory was unaware of the sample origin.

### Field Duplicates

Field duplicates were collected to evaluate the variability of the sample concentrations due to sample processing. Field duplicate samples were collected along with the original sample as a split from one homogenized sample and analyzed for the identical chemical analyte list as the media from which they were collected. Field duplicate samples of each matrix sampled were collected at an approximate frequency of one duplicate per 20 samples.

### Equipment Blanks

Equipment blanks (also known as a rinsate blank or field blank) were used to assess the effectiveness of equipment decontamination procedures. An equipment blank was collected by pouring reagent grade or distilled water into or over or pumped through the sampling device, collecting the rinsate in a sample container, and submitting the sample to the laboratory for analysis. One equipment blank was collected for the bladder pump for the groundwater sampling. Equipment blanks were collected immediately after the equipment was decontaminated, and the blank was analyzed for all laboratory analyses requested for the environmental samples collected at the location that the blank was collected.

### Transport Blanks (Trip Blanks)

Transport blanks (also known as a trip blanks) are used to assess the potential introduction of contaminants from sample containers or during the transportation and storage procedures. A transport blank consisted of a VOC sample vial filled in the laboratory with chemically preserved reagent grade water, transported to the sampling site, handled under the same conditions as an environmental sample, and returned to the laboratory alongside field samples for analysis. Transport blanks were not opened in the field. One transport blank was submitted for approximately every 20 project samples shipped to the laboratory. Transport blanks were analyzed for the volatile constituents analyzed in the project sample collected at that location (VOCs and/or GRO).

## 1.4 Field Documentation

All field activities were recorded on field forms by the on-site field representative. The forms included daily field reports, boring logs, and groundwater sampling forms. Recorded information included:

- Project name;
- Field personnel on site;
- Facility visitors;
- Weather conditions;
- Field observations;
- Notes on maps and/or drawings;
- Date and time sample collected;
- Sampling method and description of activities; and
- Conferences associated with field sampling activities.

## 1.5 Sample Labeling, Shipping, and Chain-of-Custody

All environmental samples collected during the project were labeled, stored, and shipped consistent with PES protocols. These protocols are summarized below.

### Sample Labeling

Sample container labels were completed immediately before or immediately following sample collection. Container labels included the following information:

- Project name;
- Sample number;
- Initials of collector;
- Date and time of collection; and
- Analysis requested.

### Sample Transportation

Soil samples were transported to the analytical laboratory using the following procedures:

- Sample containers were transported with ice in a cooler or other suitable shipping container;
- Ice was placed into each shipping container with the samples;
- All sample shipments were accompanied by a chain-of-custody form. The completed form was sealed in a plastic bag;
- The name and address of the analytical laboratory was placed on each shipping container prior to transportation; and
- Coolers were shipped to ESC for overnight delivery.

### Chain-Of-Custody

All samples collected for potential laboratory chemical analyses were documented on chain-of-custody forms. The collected samples remained in the custody of the sampler(s) until shipment to ESC. A signed chain-of-custody form was included with all shipments to ESC, was signed by ESC, was emailed to PES with a record of the sample receipt and log-in form, and was included in the ESC analytical report.

## 1.6 Decontamination

All non-disposable sampling equipment was decontaminated prior to initial use, between sampling locations, and at the completion of the site-specific sampling. Cascade Drilling decontaminated their equipment with a hot water pressure washer. PES decontaminated non-dedicated and non-disposable sampling equipment using the following procedure:

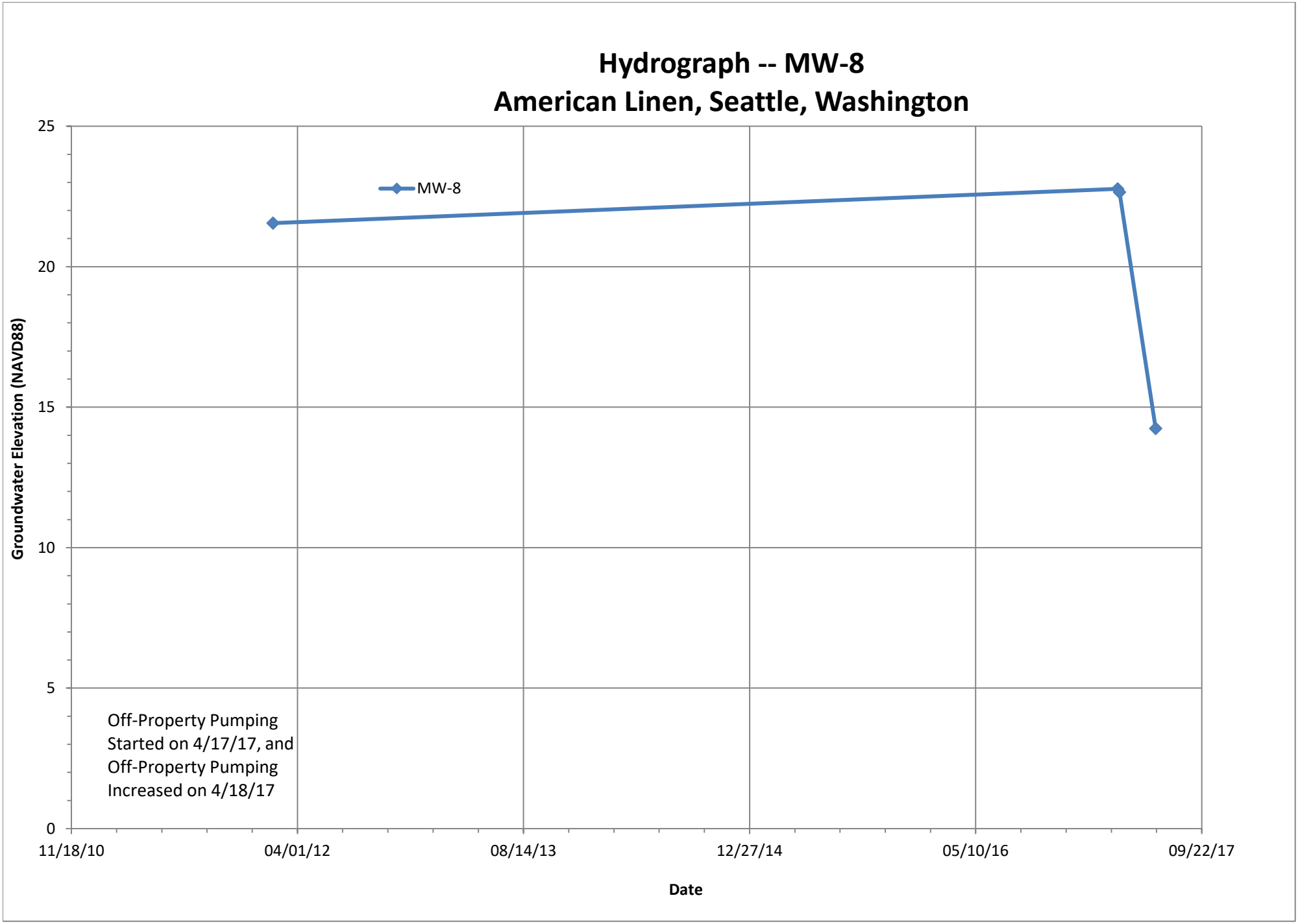
- Non-phosphatic detergent (e.g., Liquinox) and tap water wash;
- Tap water or distilled water rinse; and
- A final distilled water rinse.

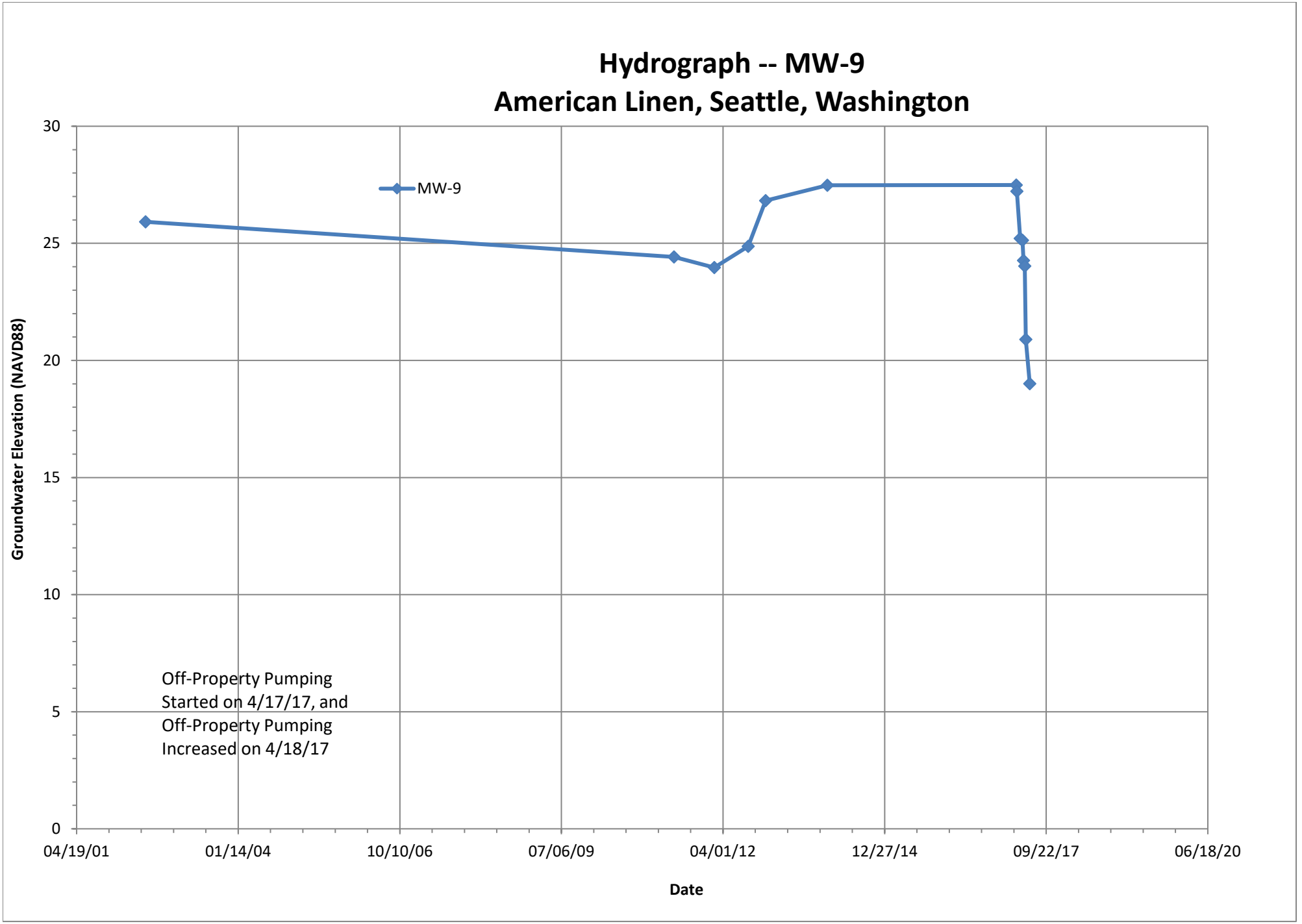
Water level probes were decontaminated before and between uses by rinsing with distilled or de-ionized water.

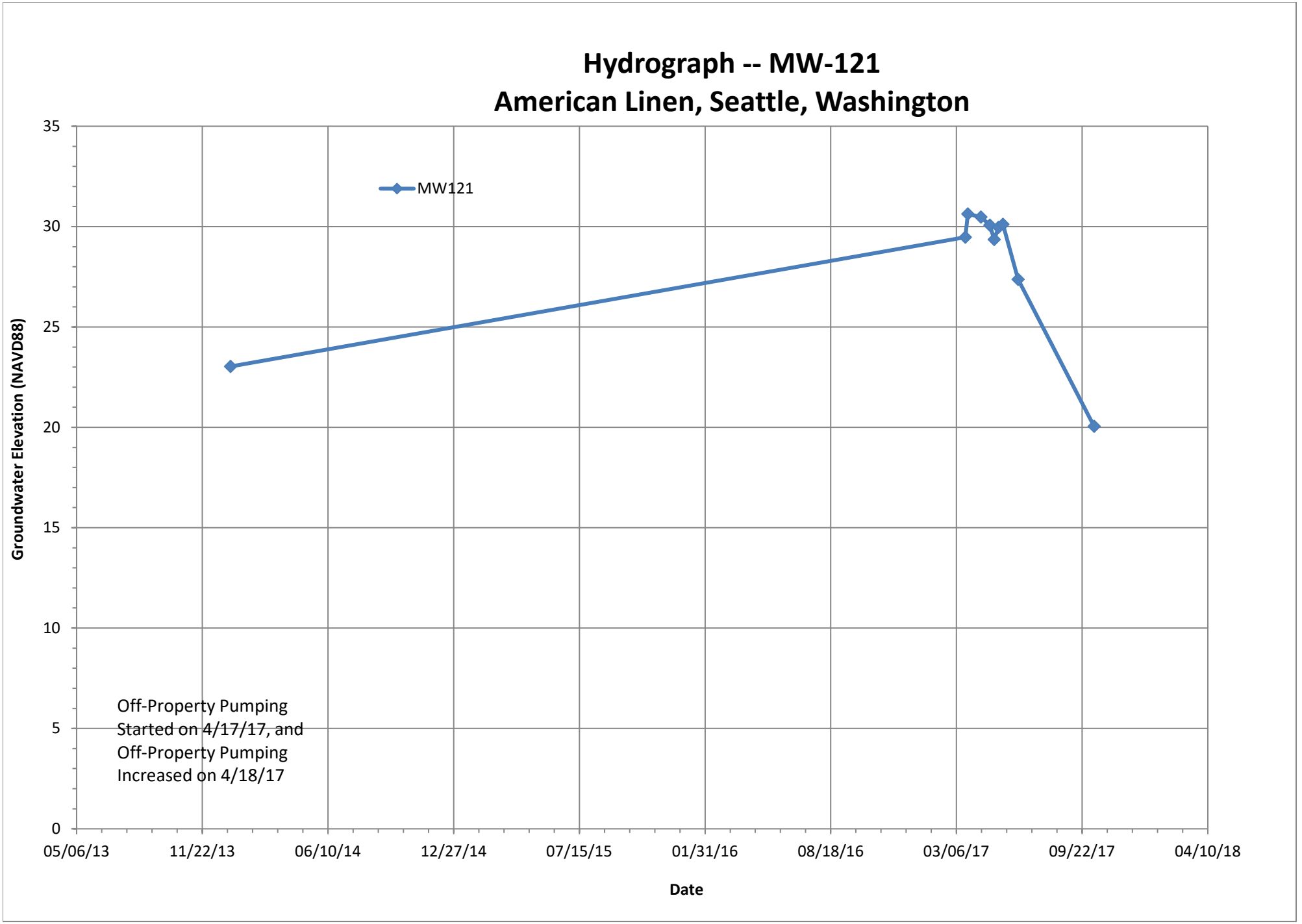
## 1.7 Residuals Management

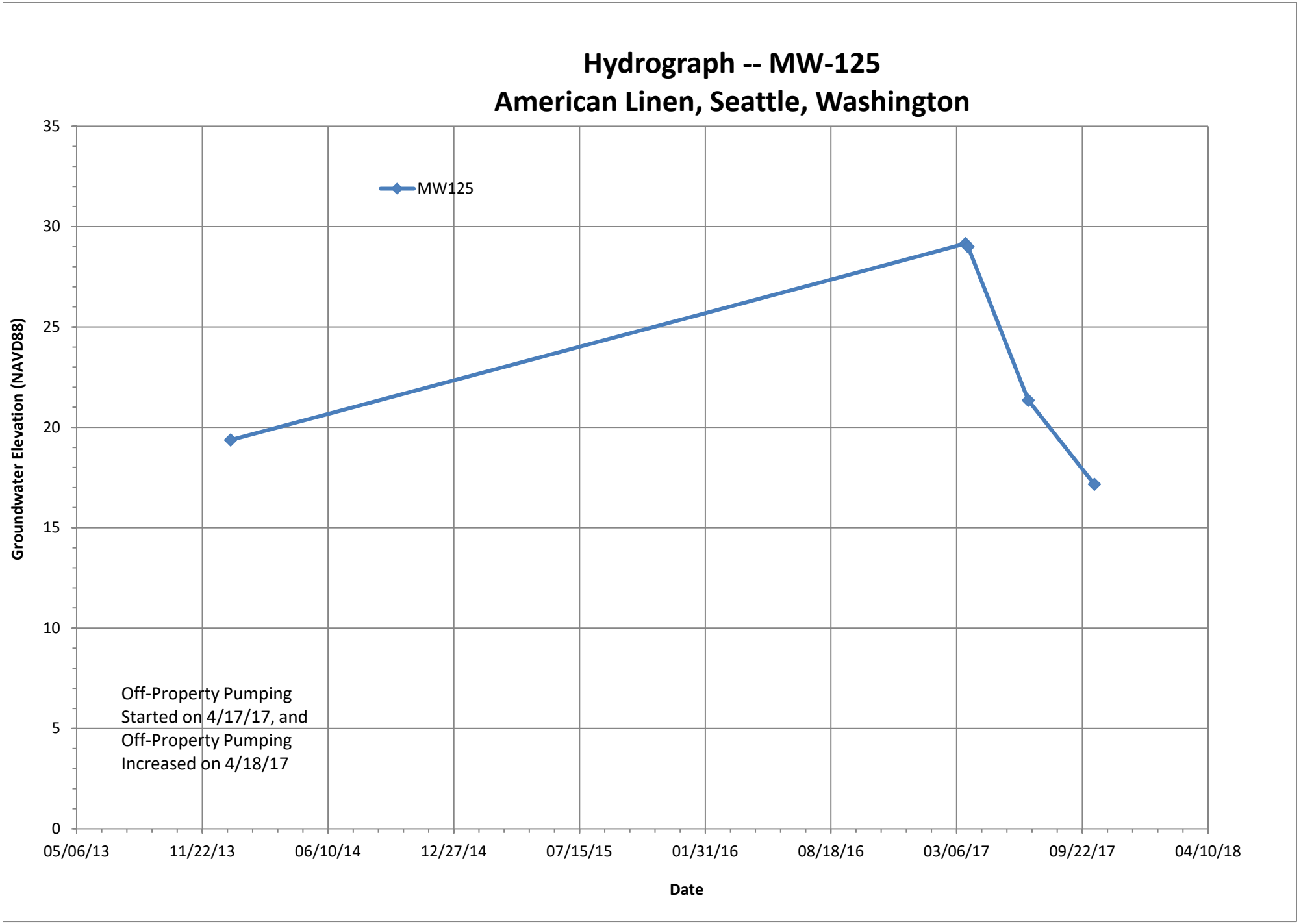
The following procedures were used for the drilling and sampling residuals, including soil, well development water, groundwater sampling purge water, and decontamination water:

- Soil generated during drilling was placed in lined roll-off bins and securely stored on the Property. Upon completion of Sonic drilling, representative samples were collected and analyzed for disposal characterization. Based on the results, the soil was profiled and disposed of at an appropriate facility. During hollow stem auger drilling, soil generated during drilling was segregated into appropriate waste bins based on field screening results. Soil boring lab results confirmed the waste bin contents were disposed at an appropriate facility based on the soil sample laboratory results;
- Development water, purge water and decontamination water generated during the Sonic drilling portion of the investigation activities were placed in 55-gallon drums and securely stored on the Property. Water generated during the hollow stem auger drilling portion of the investigation activities was placed in a 6,000-gallon polyethylene tank then transferred to an 8,500-gallon steel tank. A representative sample of each tank was collected and analyzed for disposal characterization. Based on the results, the water was profiled and disposed of at an appropriate facility; and
- Disposable equipment was placed in plastic bags and disposed of as solid waste.

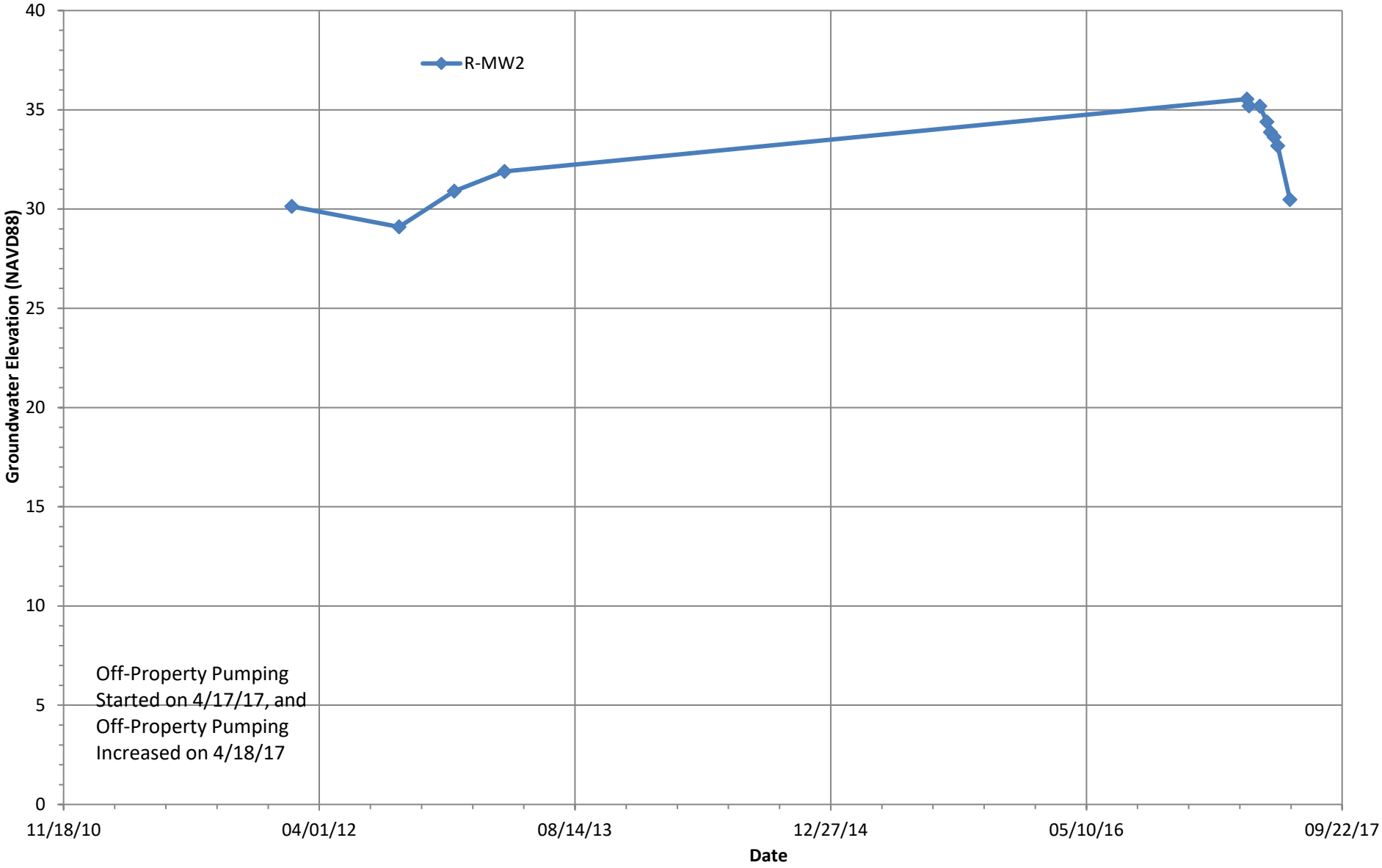

Hydrograph -- MW-8
American Linen, Seattle, Washington
MW-8
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

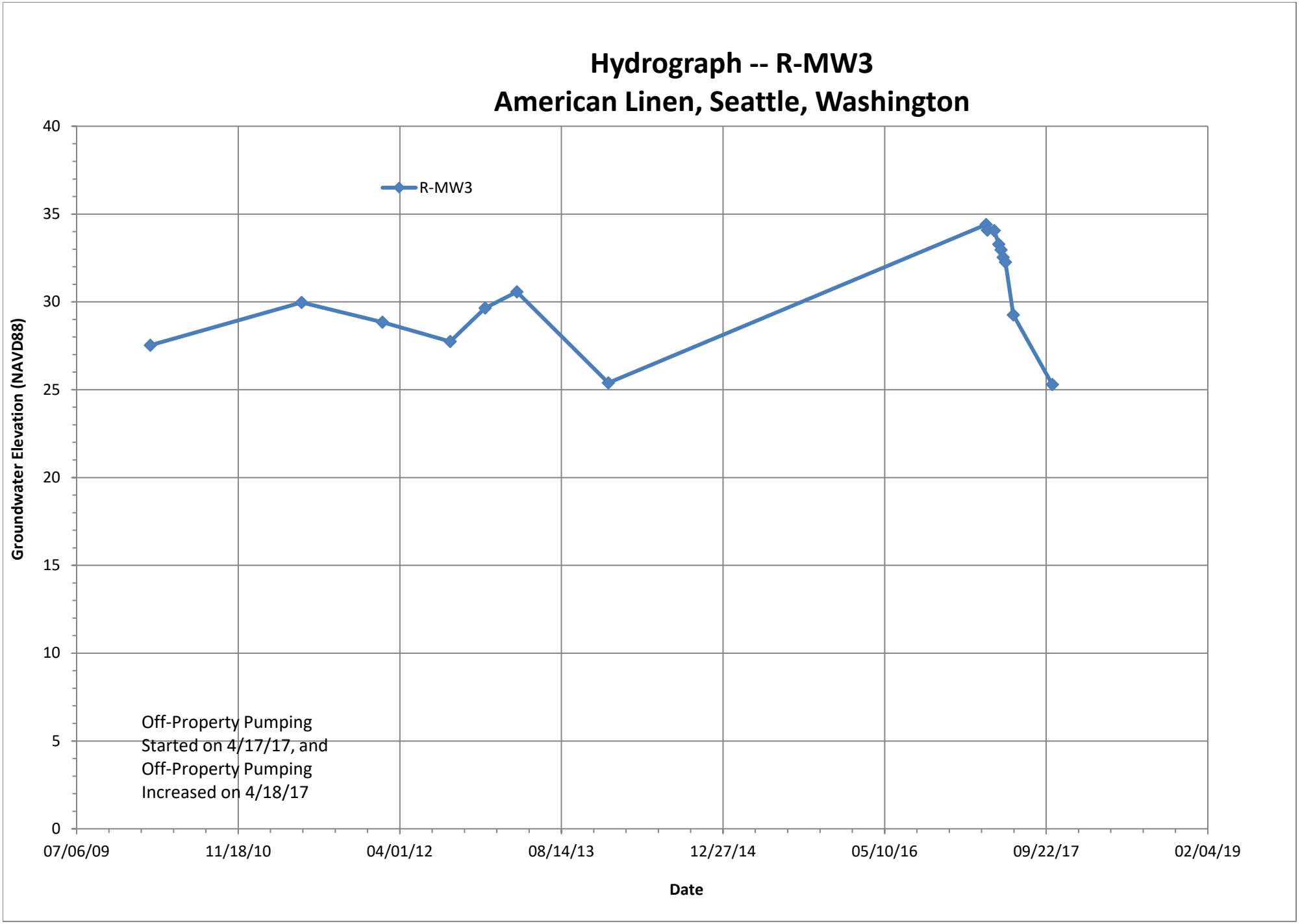

Hydrograph -- MW-9
American Linen, Seattle, Washington
MW-9
Groundwater Elevation (NAVD88)
30
25
20
15
10
5
0
04/19/01
01/14/04
10/10/06
07/06/09
04/01/12
12/27/14
09/22/17
06/18/20
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17


Hydrograph -- MW-121
American Linen, Seattle, Washington
MW121
Groundwater Elevation (NAVD88)
35
30
25
20
15
10
5
0
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

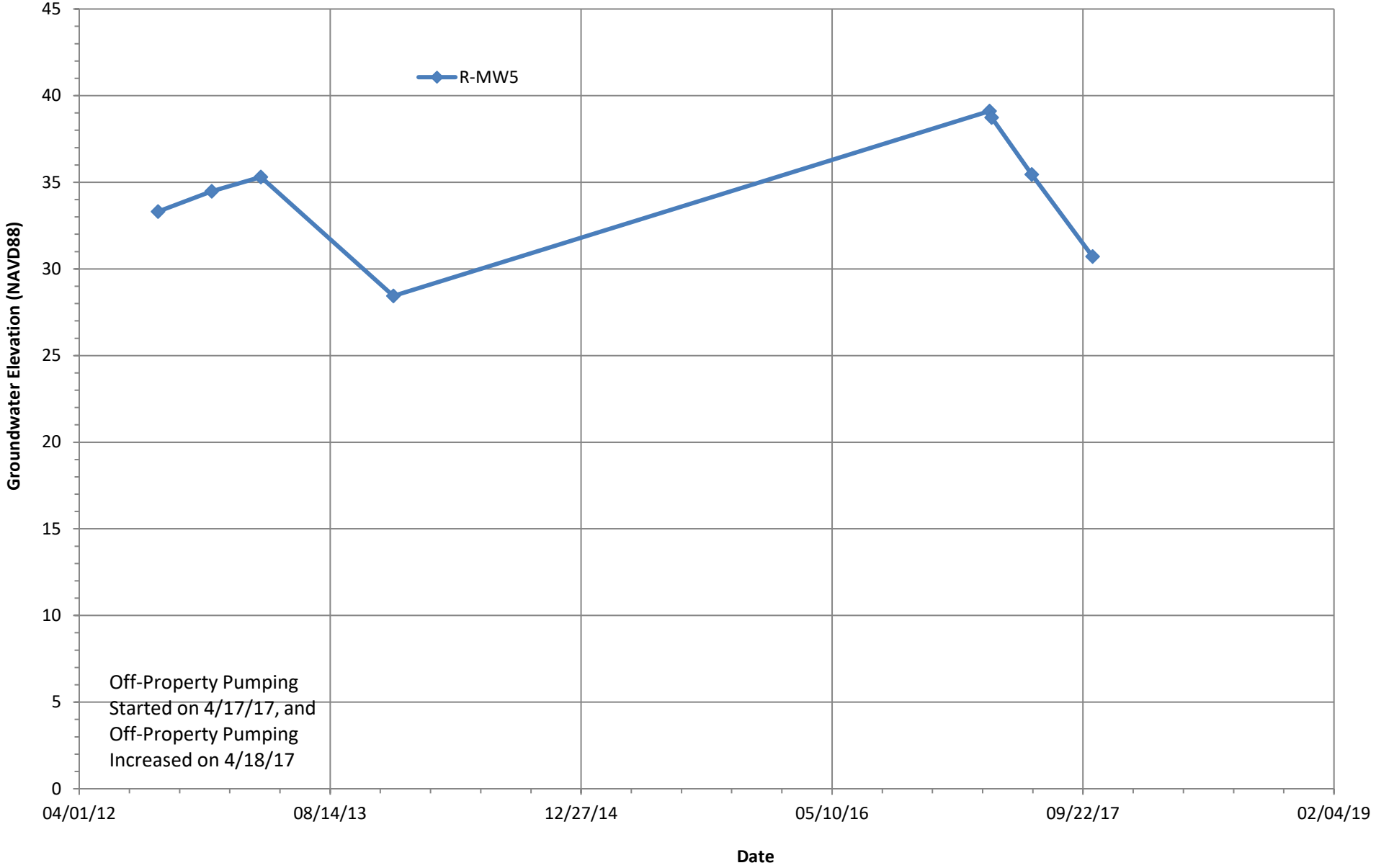

Hydrograph -- MW-125
American Linen, Seattle, Washington
MW125
Groundwater Elevation (NAVD88)
35
30
25
20
15
10
5
0
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

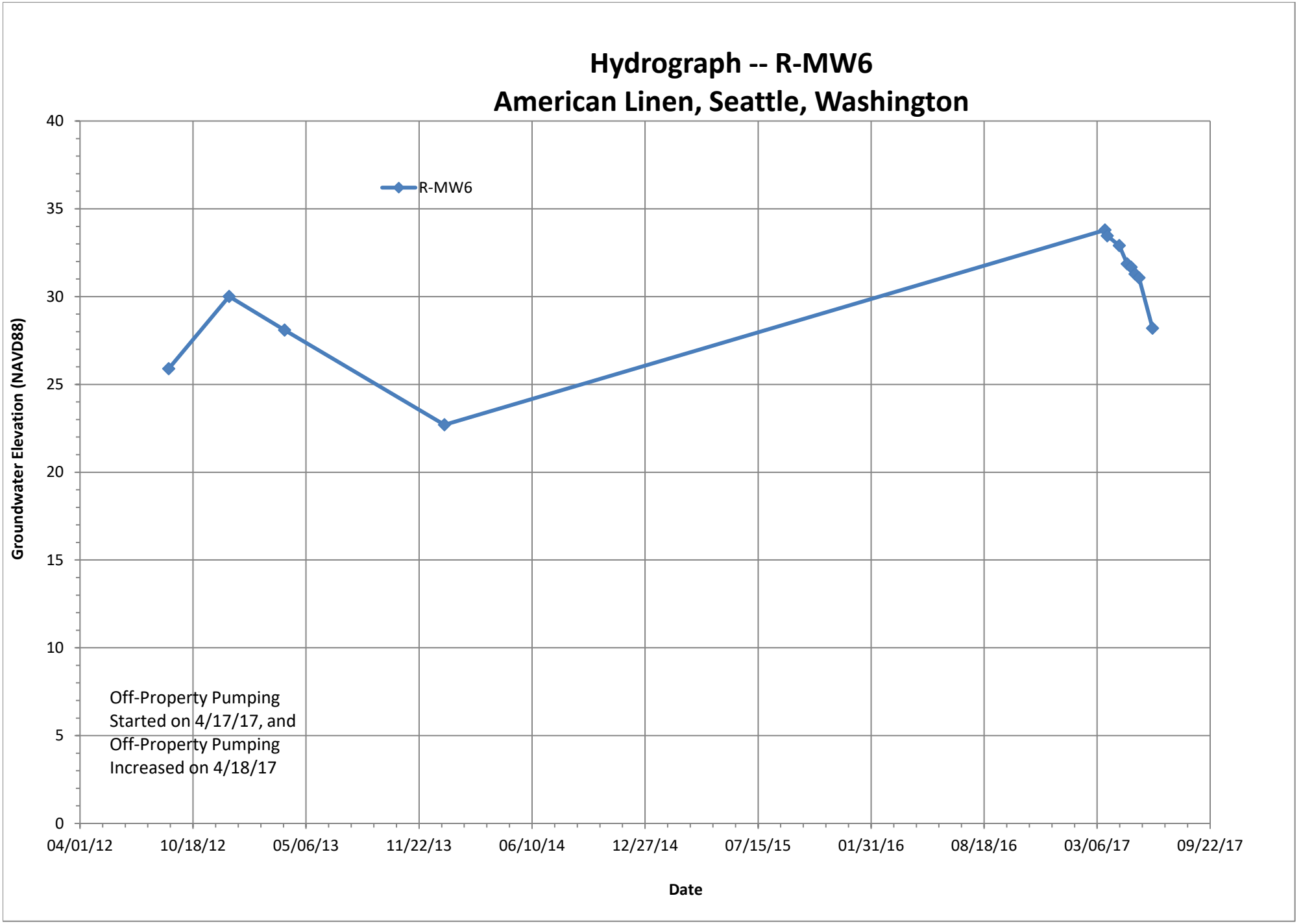
# Hydrograph -- R-MW2
# American Linen, Seattle, Washington

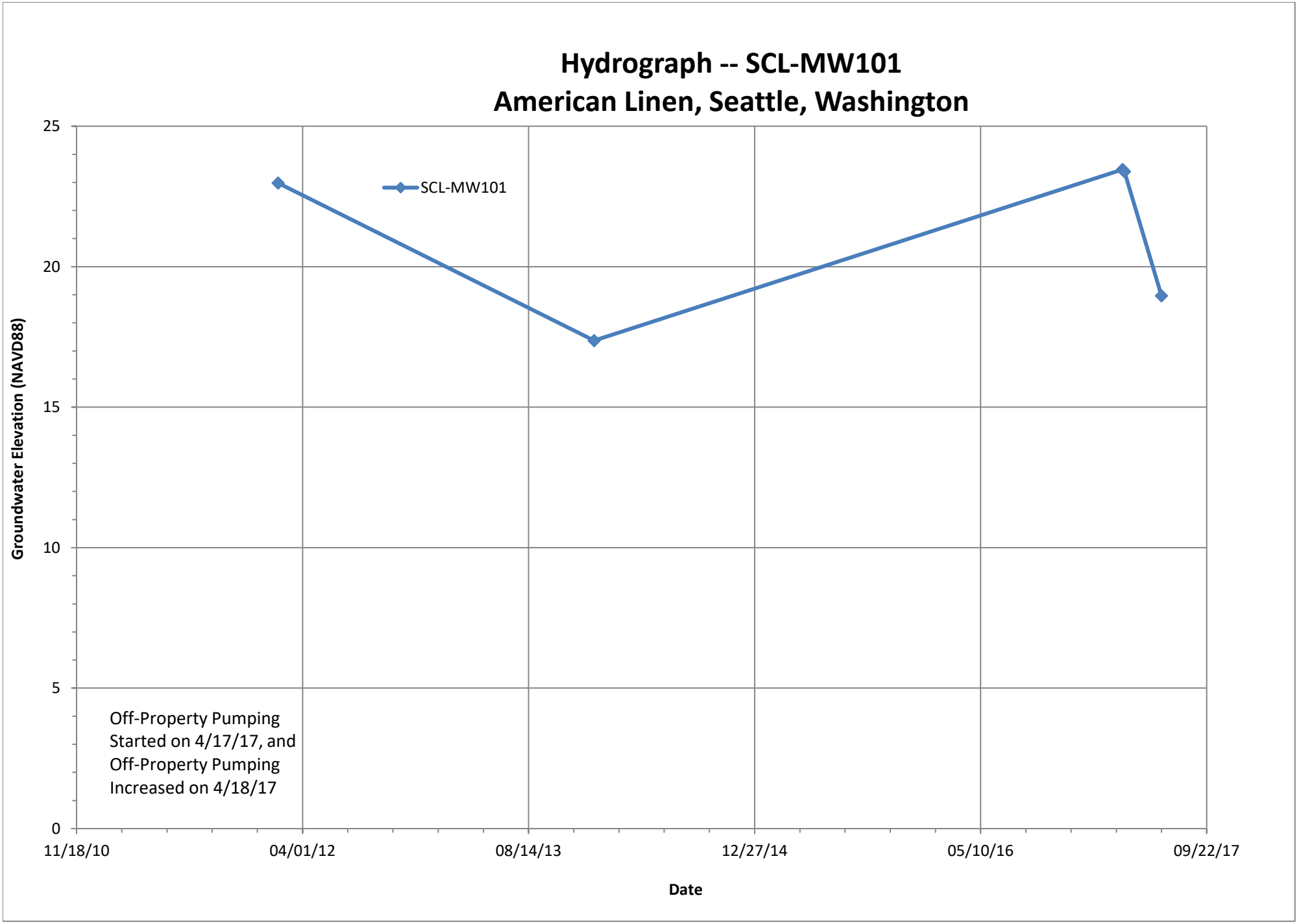


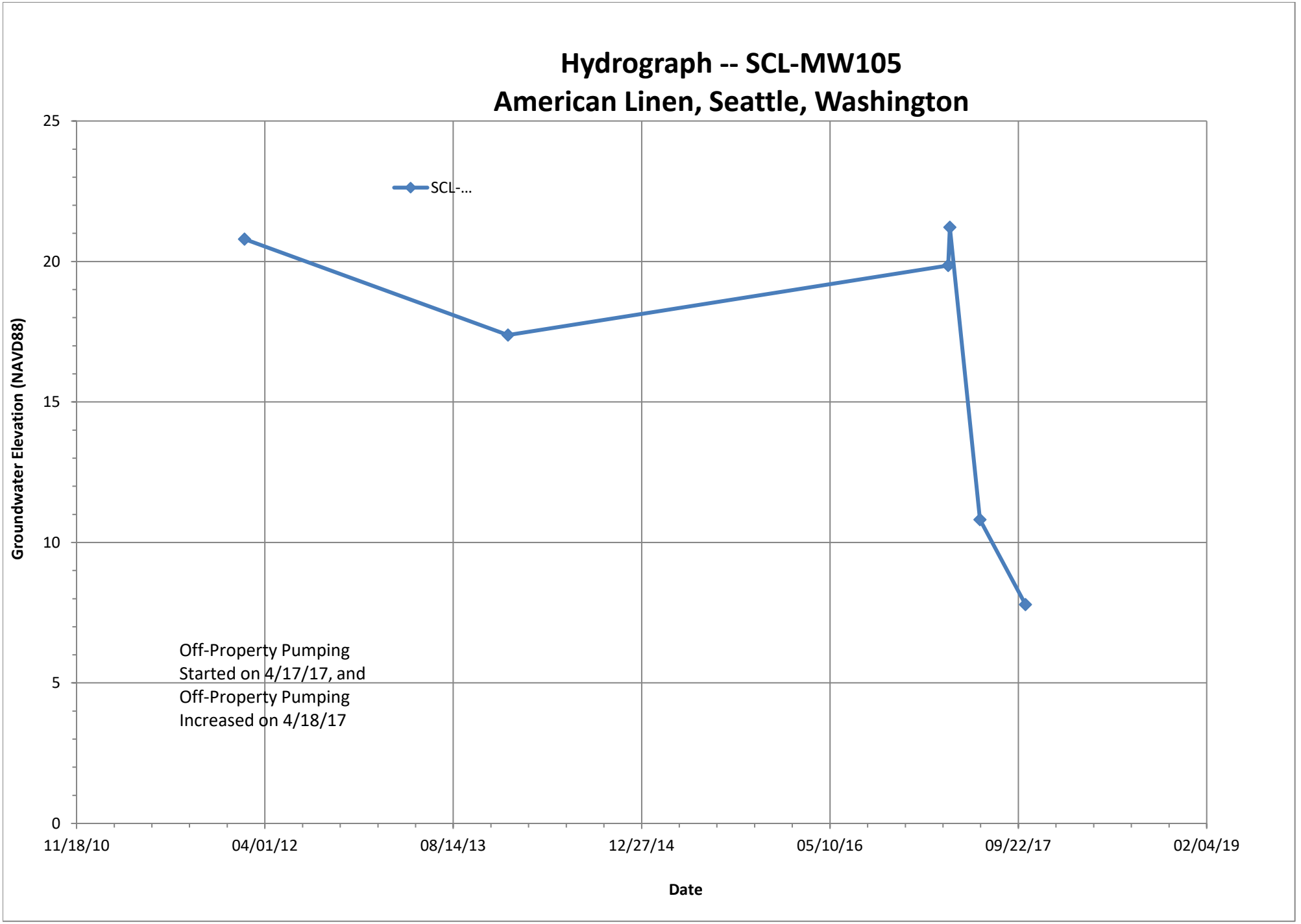

Hydrograph -- R-MW3
American Linen, Seattle, Washington
R-MW3
Groundwater Elevation (NAVD88)
40
35
30
25
20
15
10
5
0
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

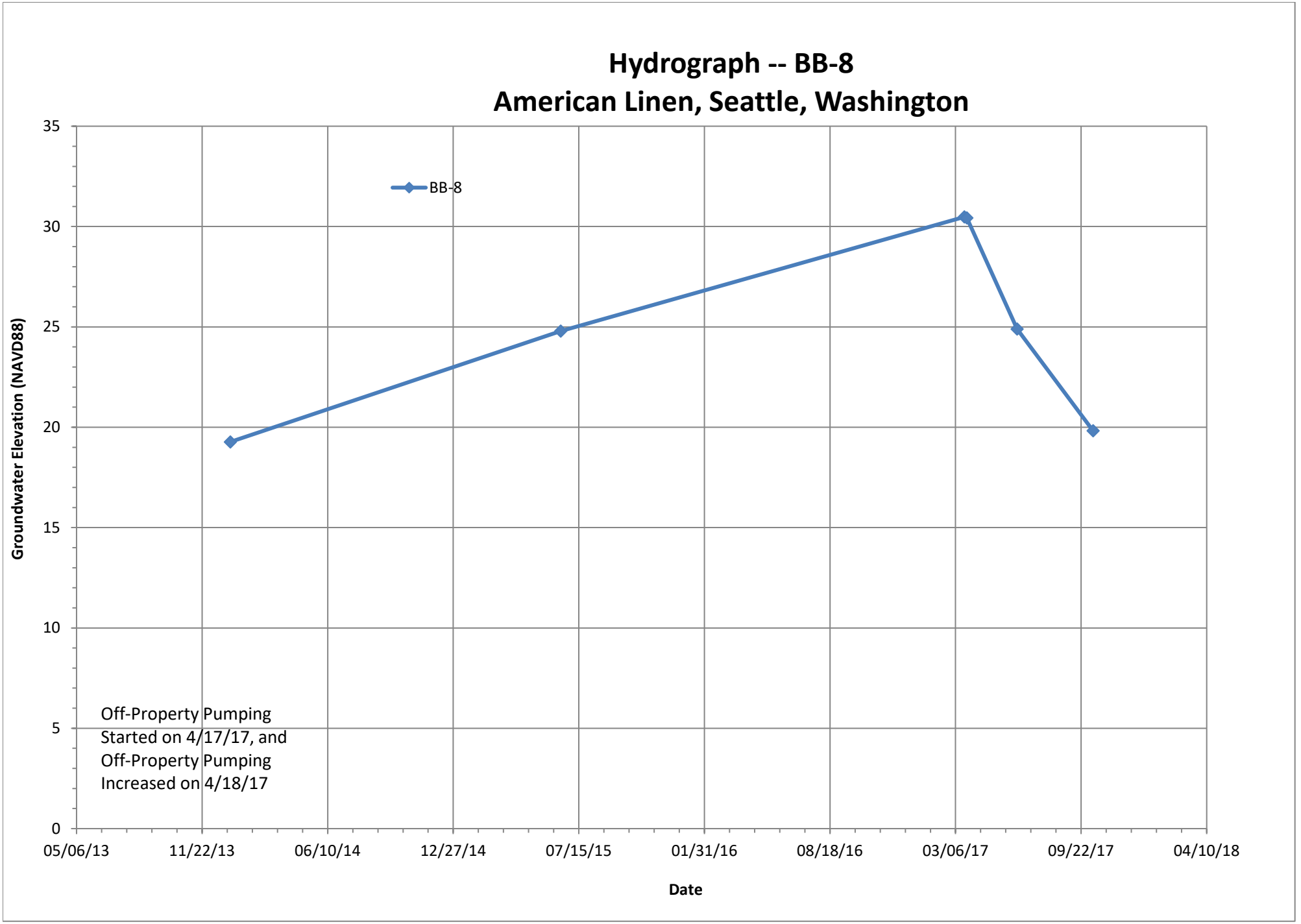
# Hydrograph -- R-MW5
# American Linen, Seattle, Washington

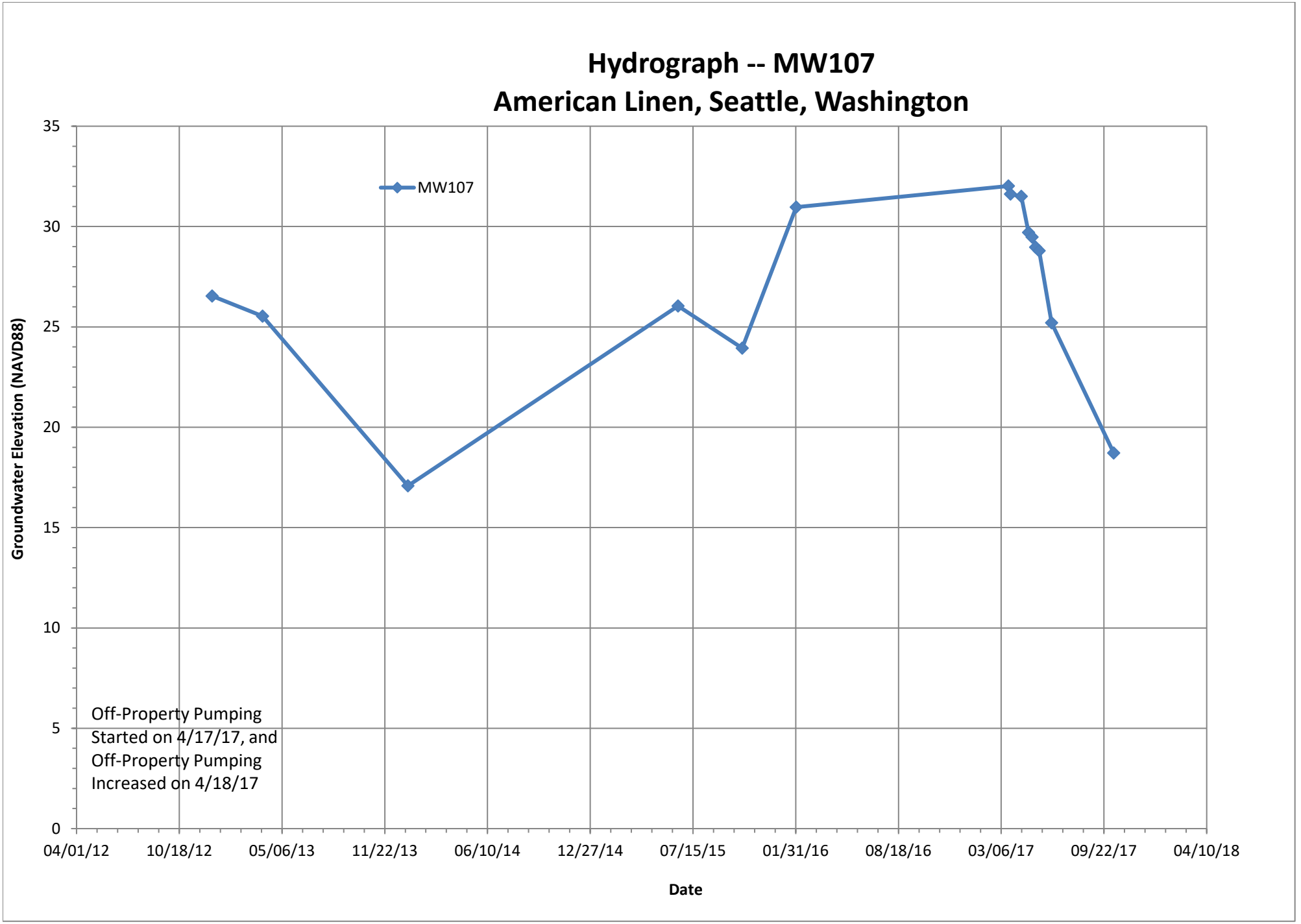


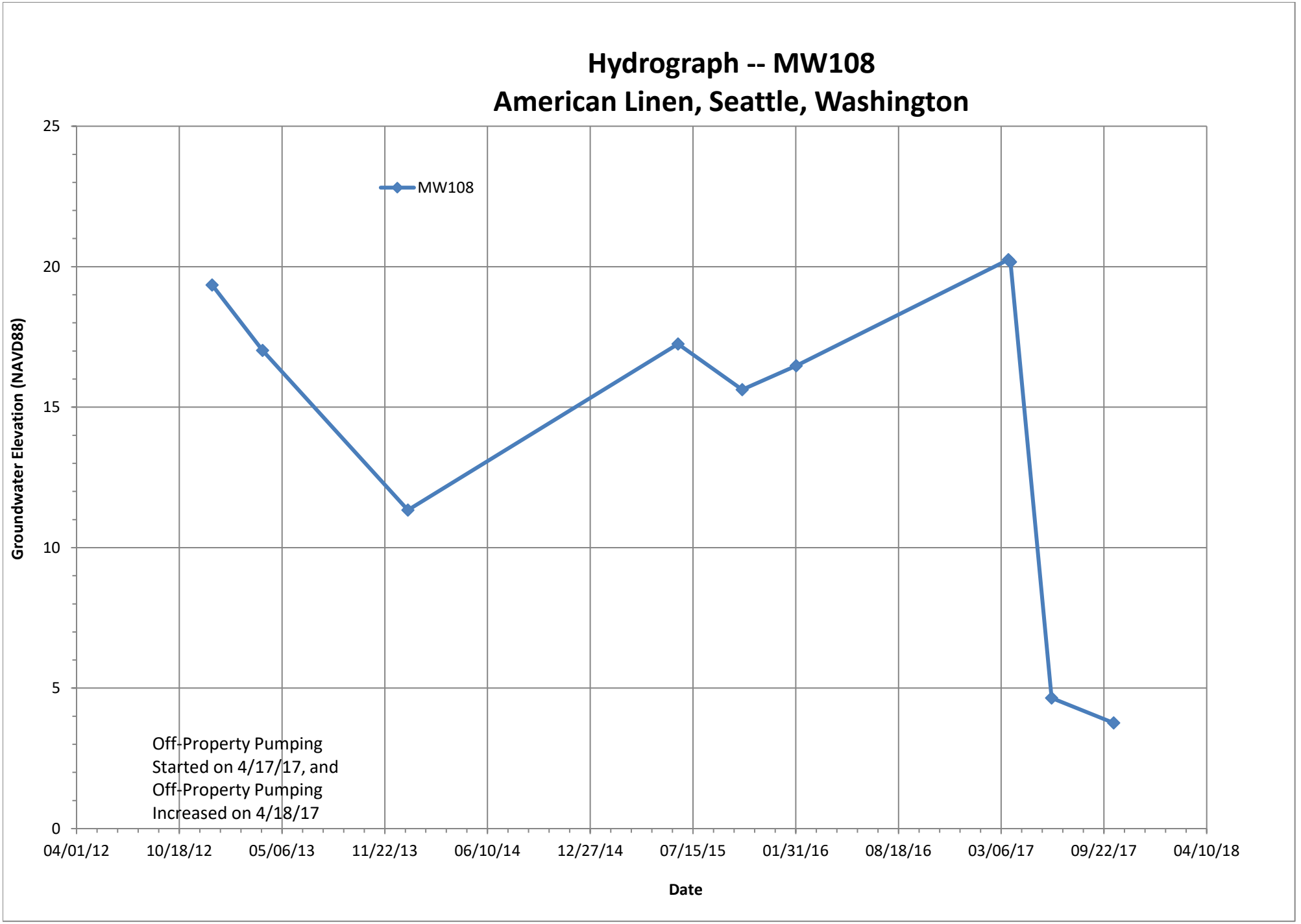

Hydrograph -- R-MW6
American Linen, Seattle, Washington
R-MW6
Groundwater Elevation (NAVD88)
40
35
30
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17


Hydrograph -- SCL-MW101
American Linen, Seattle, Washington
SCL-MW101
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

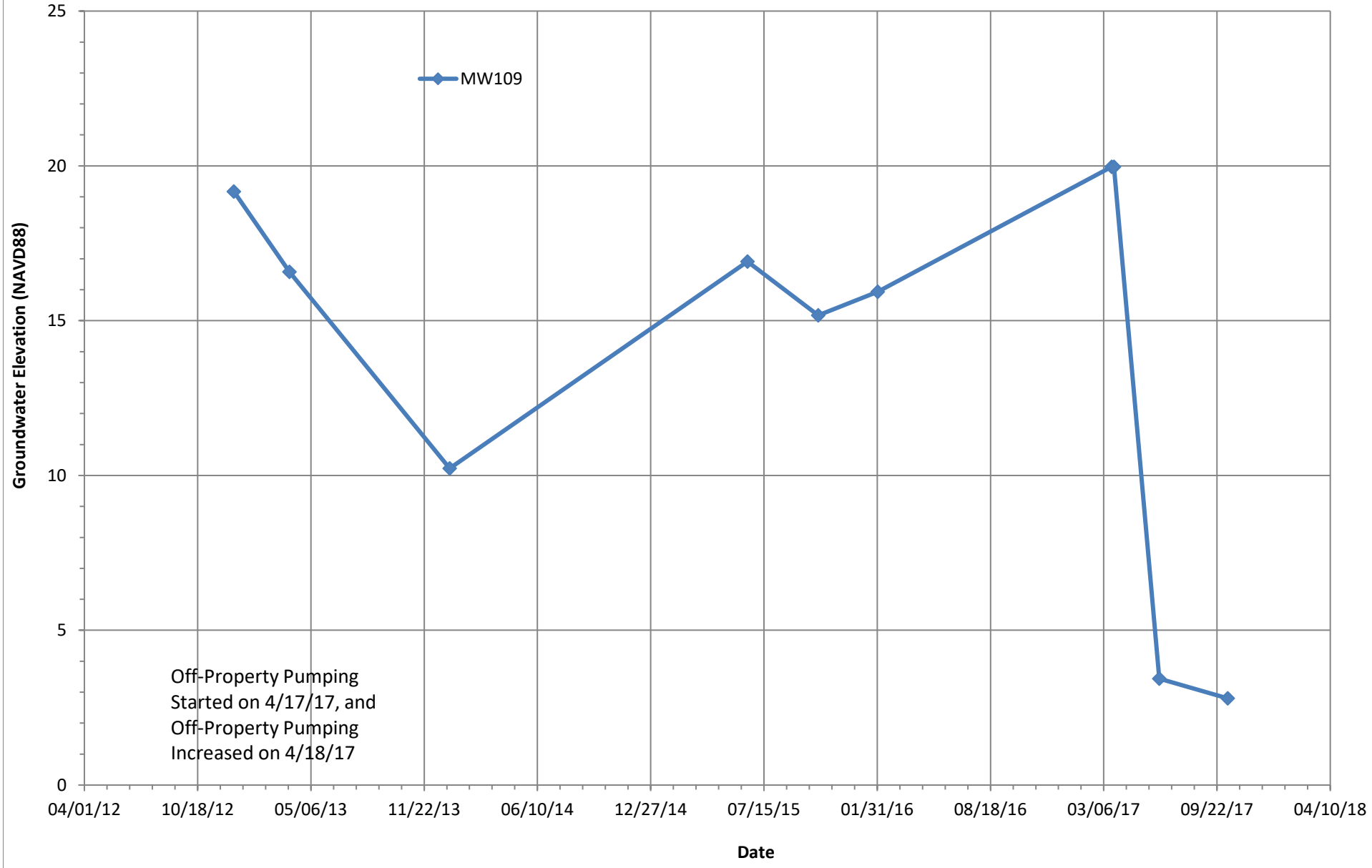

Hydrograph -- SCL-MW105
American Linen, Seattle, Washington
SCL-...
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

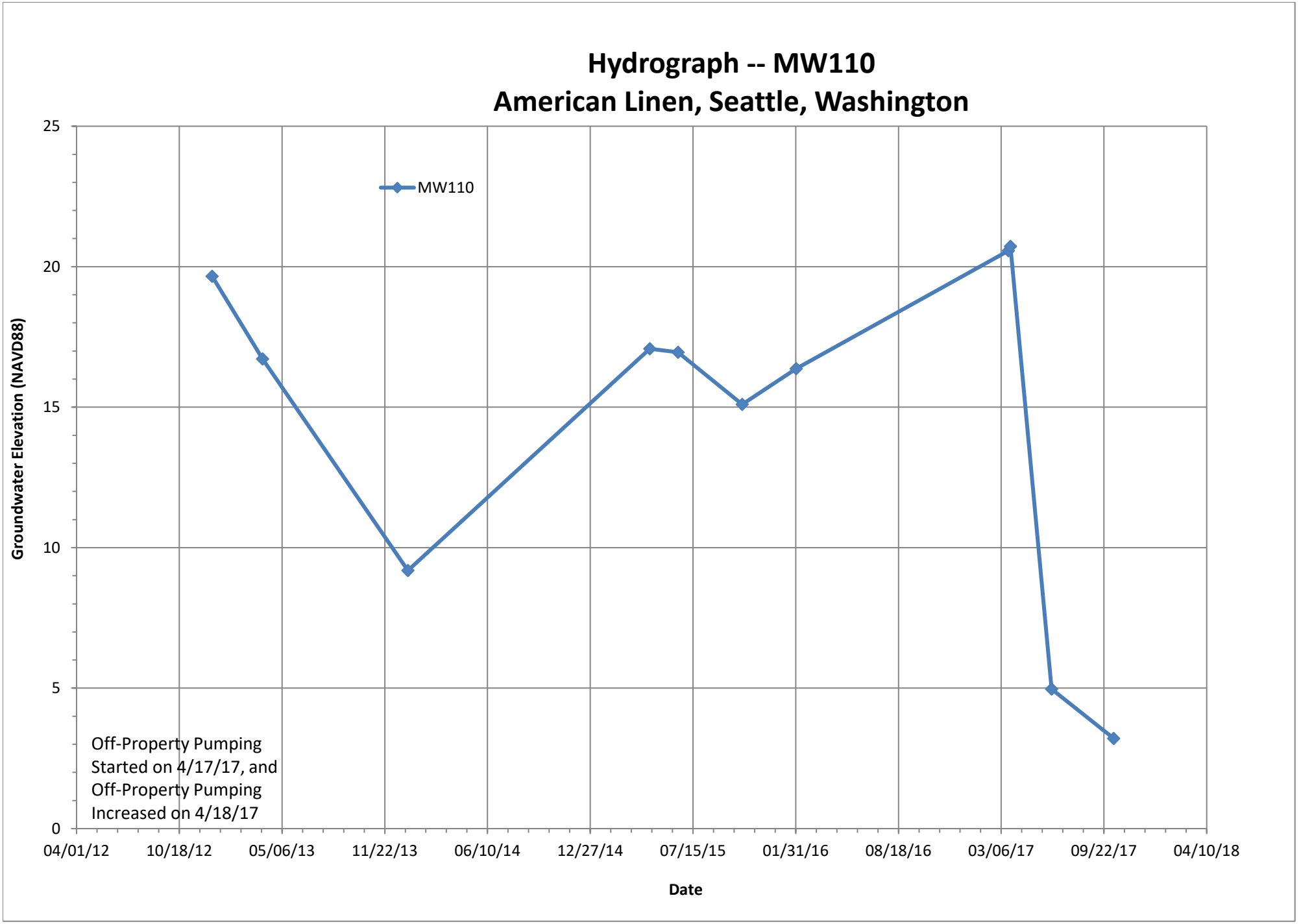

Hydrograph -- BB-8
American Linen, Seattle, Washington
BB-8
Groundwater Elevation (NAVD88)
35
30
25
20
15
10
5
0
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

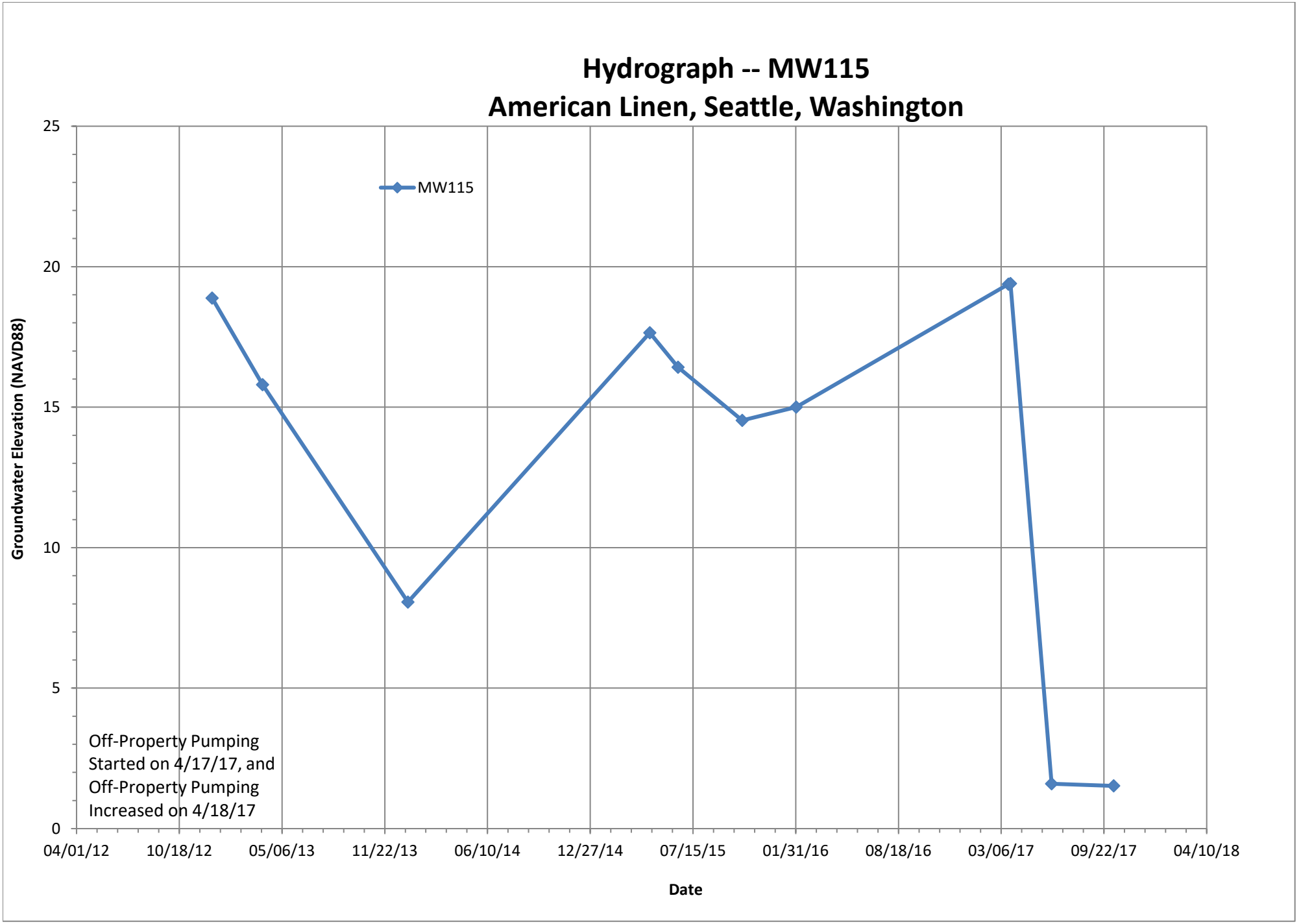

Hydrograph -- MW107
American Linen, Seattle, Washington
MW107
Groundwater Elevation (NAVD88)
35
30
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

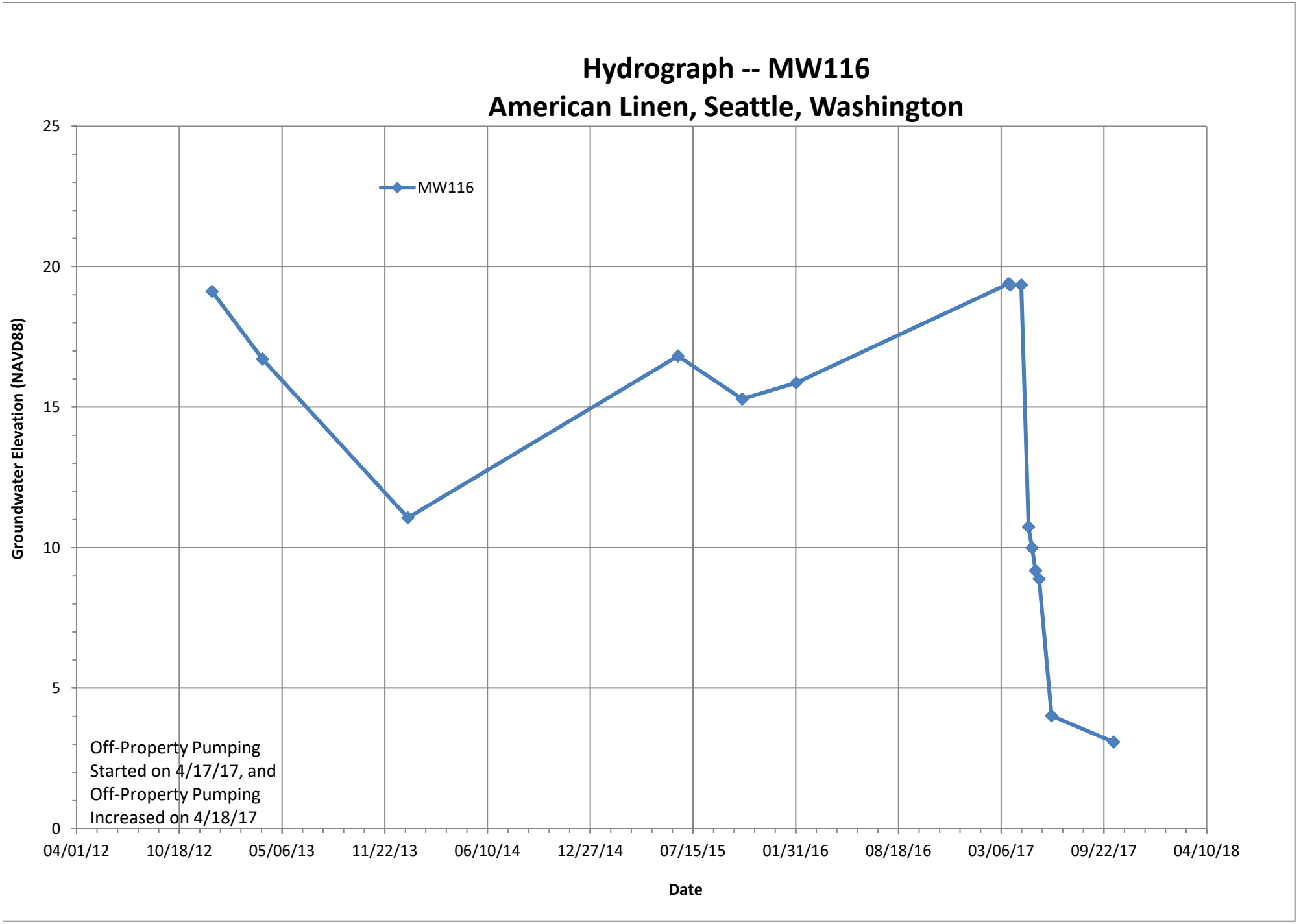

Hydrograph -- MW108
American Linen, Seattle, Washington
MW108
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

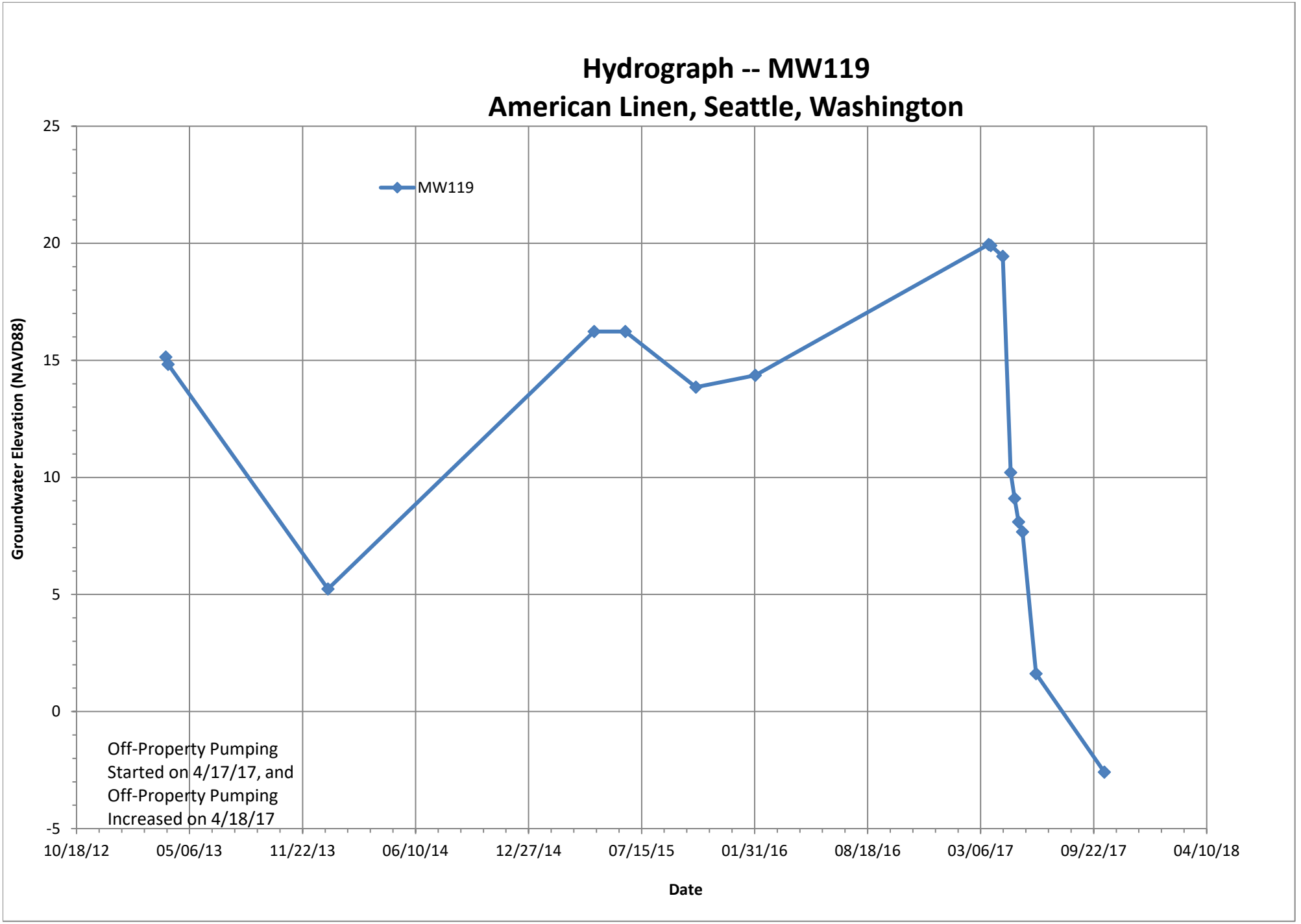
# Hydrograph -- MW109
# American Linen, Seattle, Washington



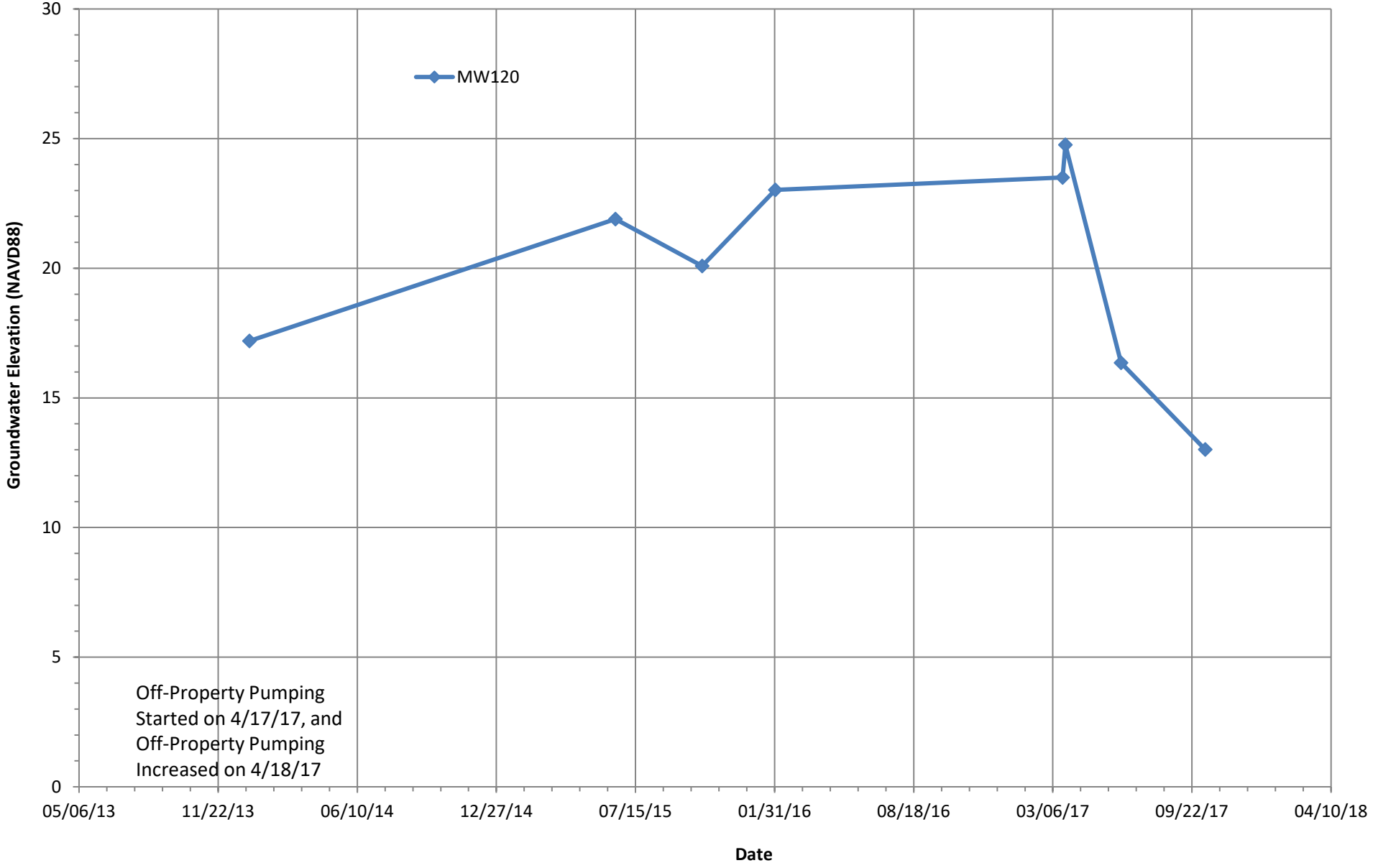

Hydrograph -- MW110
American Linen, Seattle, Washington
MW110
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17


Hydrograph -- MW115
American Linen, Seattle, Washington
MW115
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

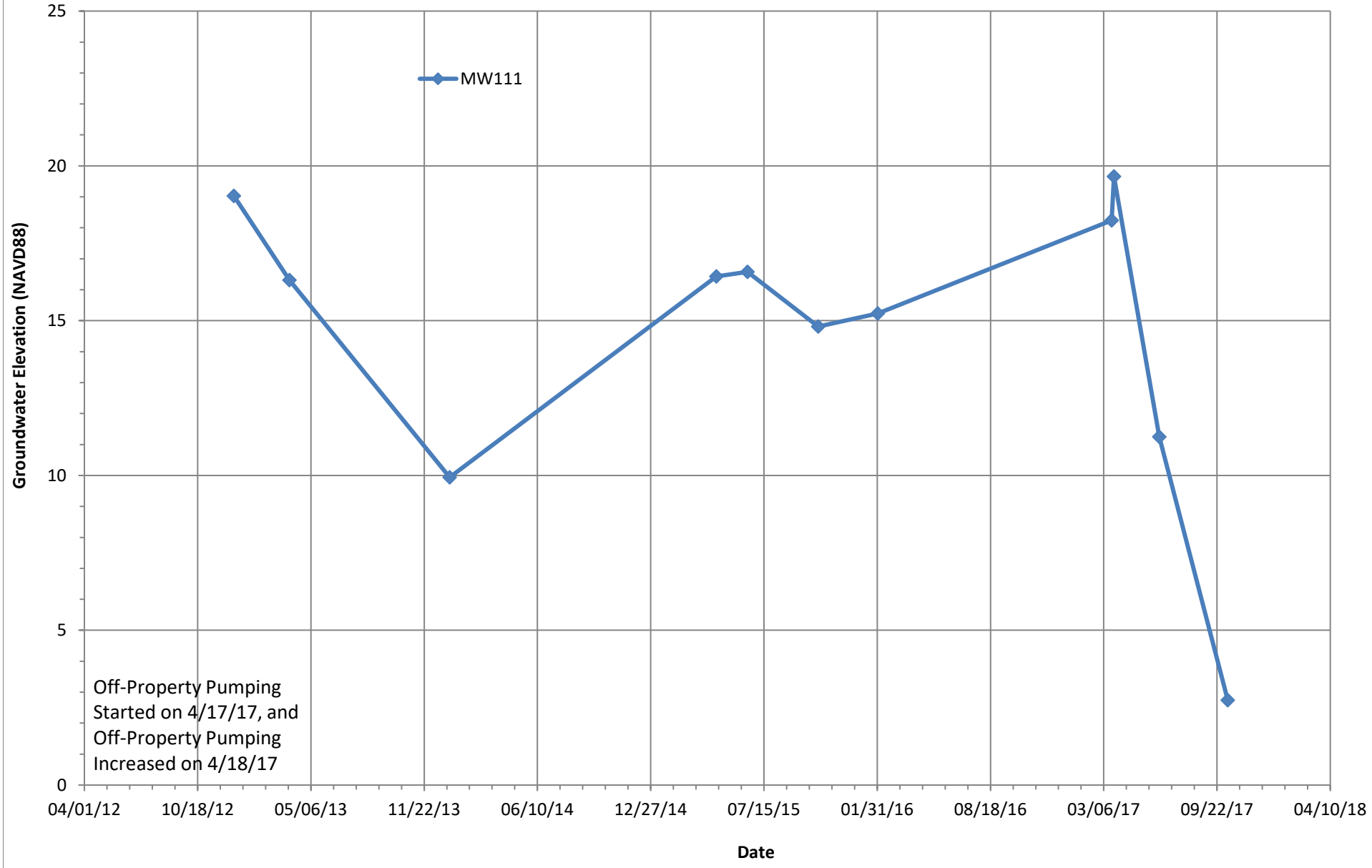

Hydrograph -- MW116
American Linen, Seattle, Washington
MW116
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17


Hydrograph -- MW119
American Linen, Seattle, Washington
MW119
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
-5
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

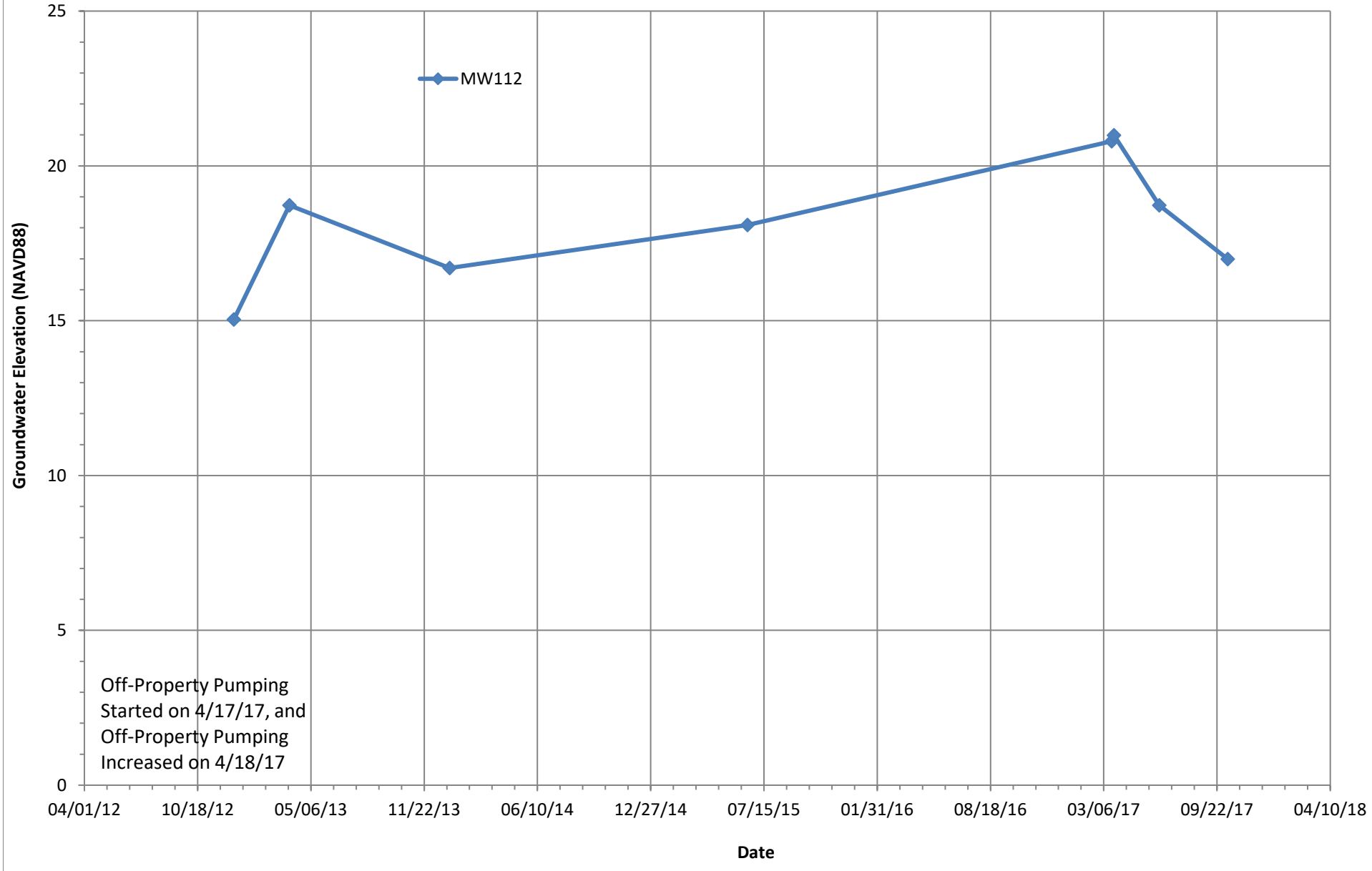
# Hydrograph -- MW120
# American Linen, Seattle, Washington



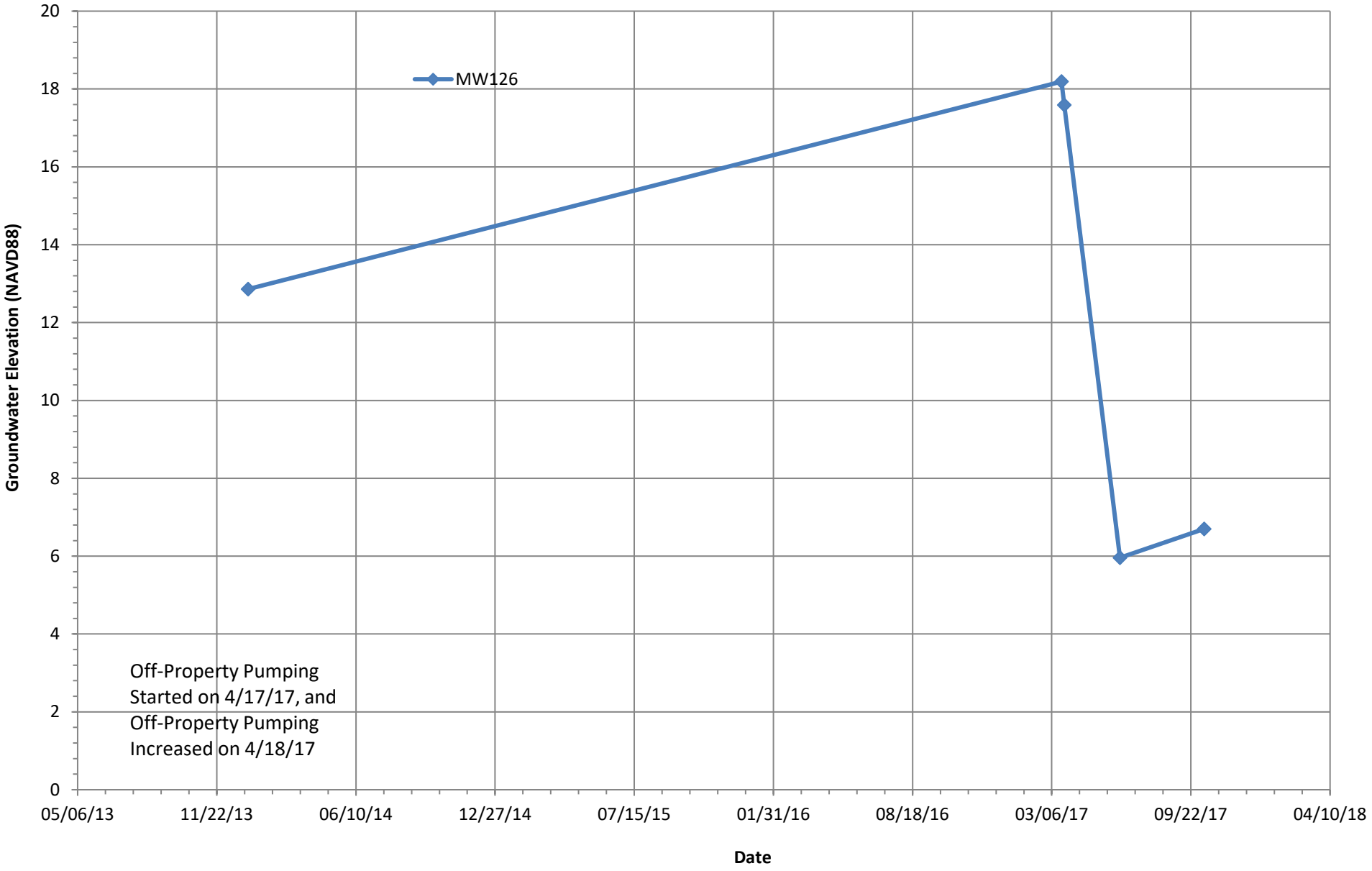
# Hydrograph -- MW111
## American Linen, Seattle, Washington



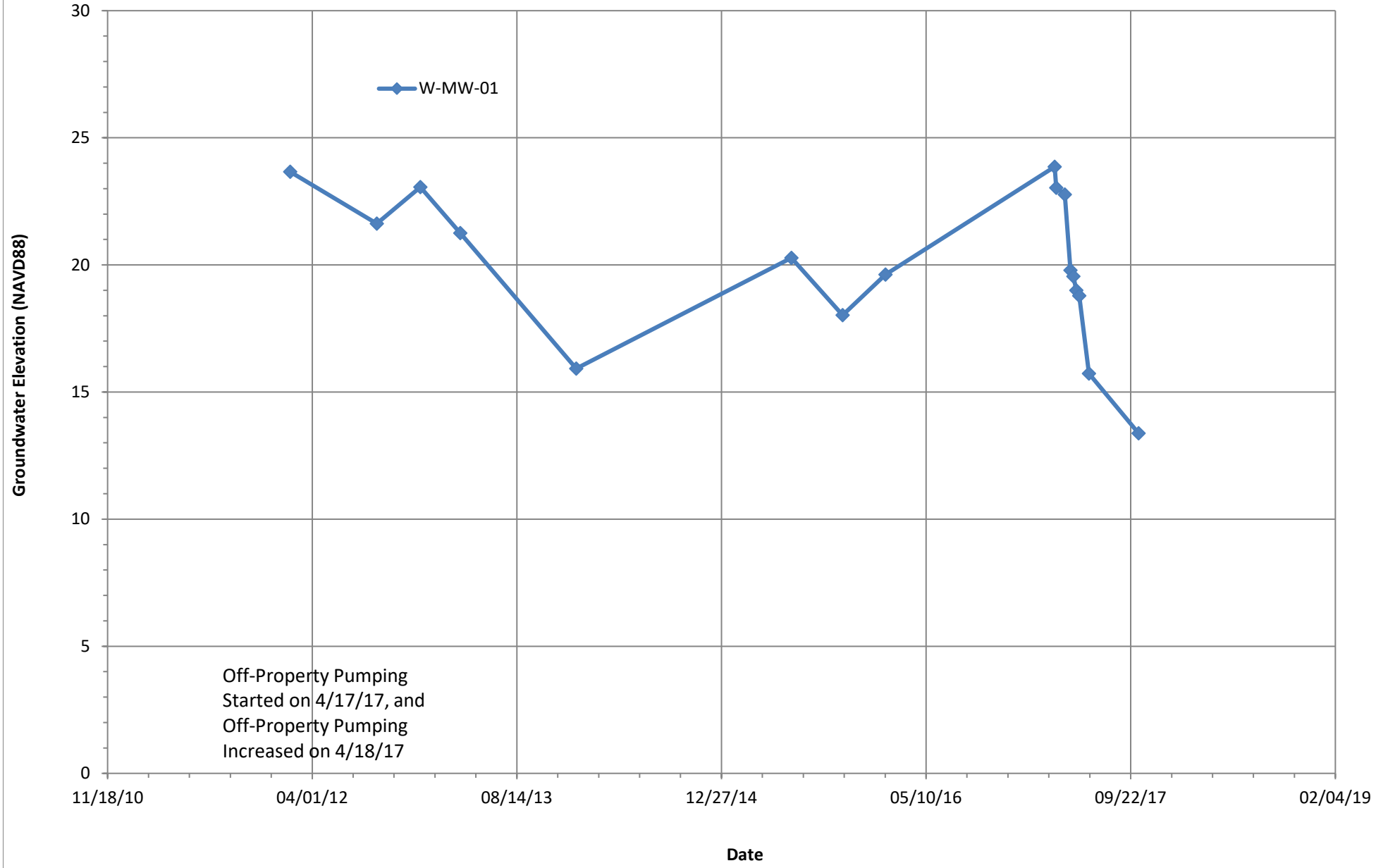
# Hydrograph -- MW112
# American Linen, Seattle, Washington

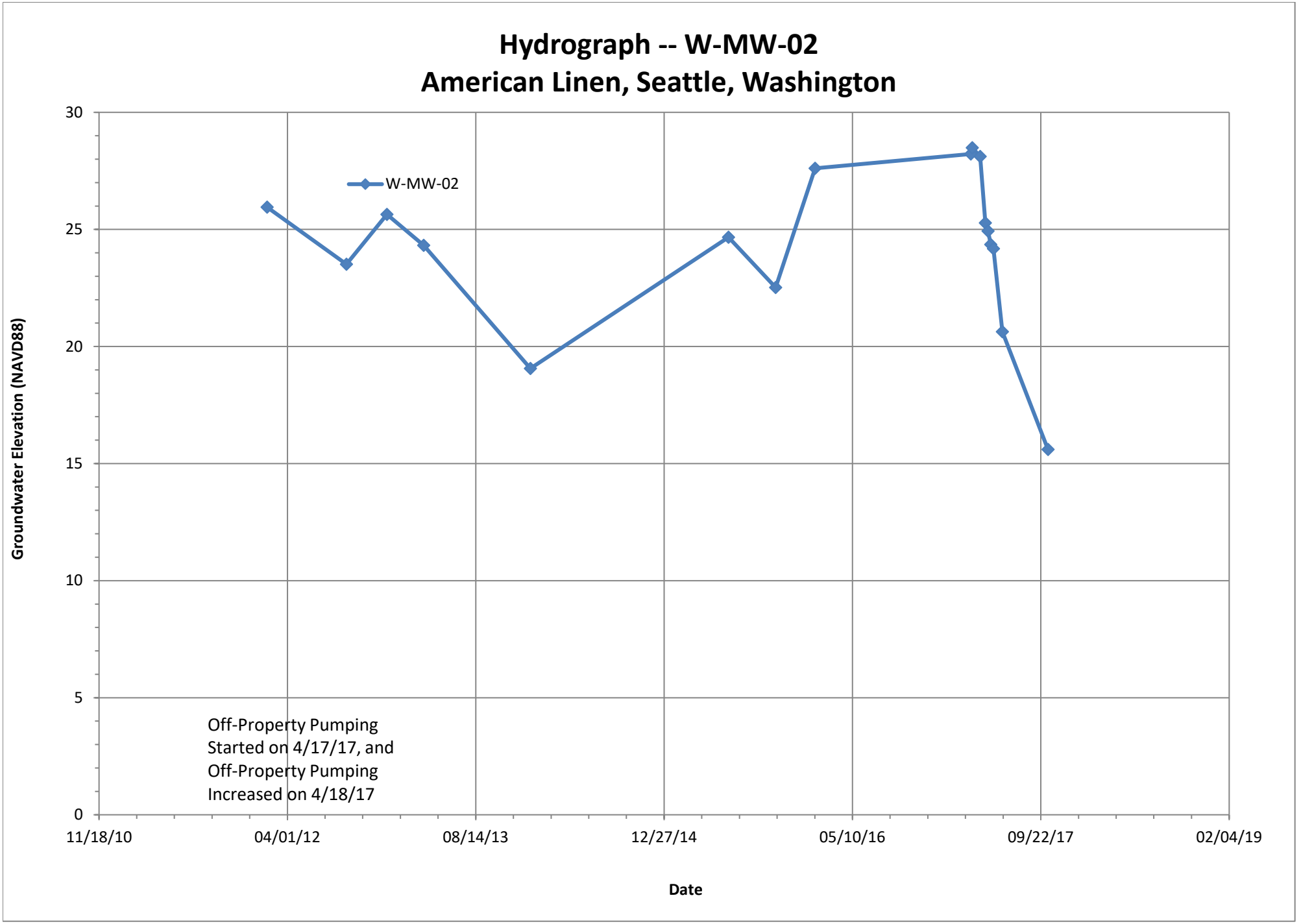


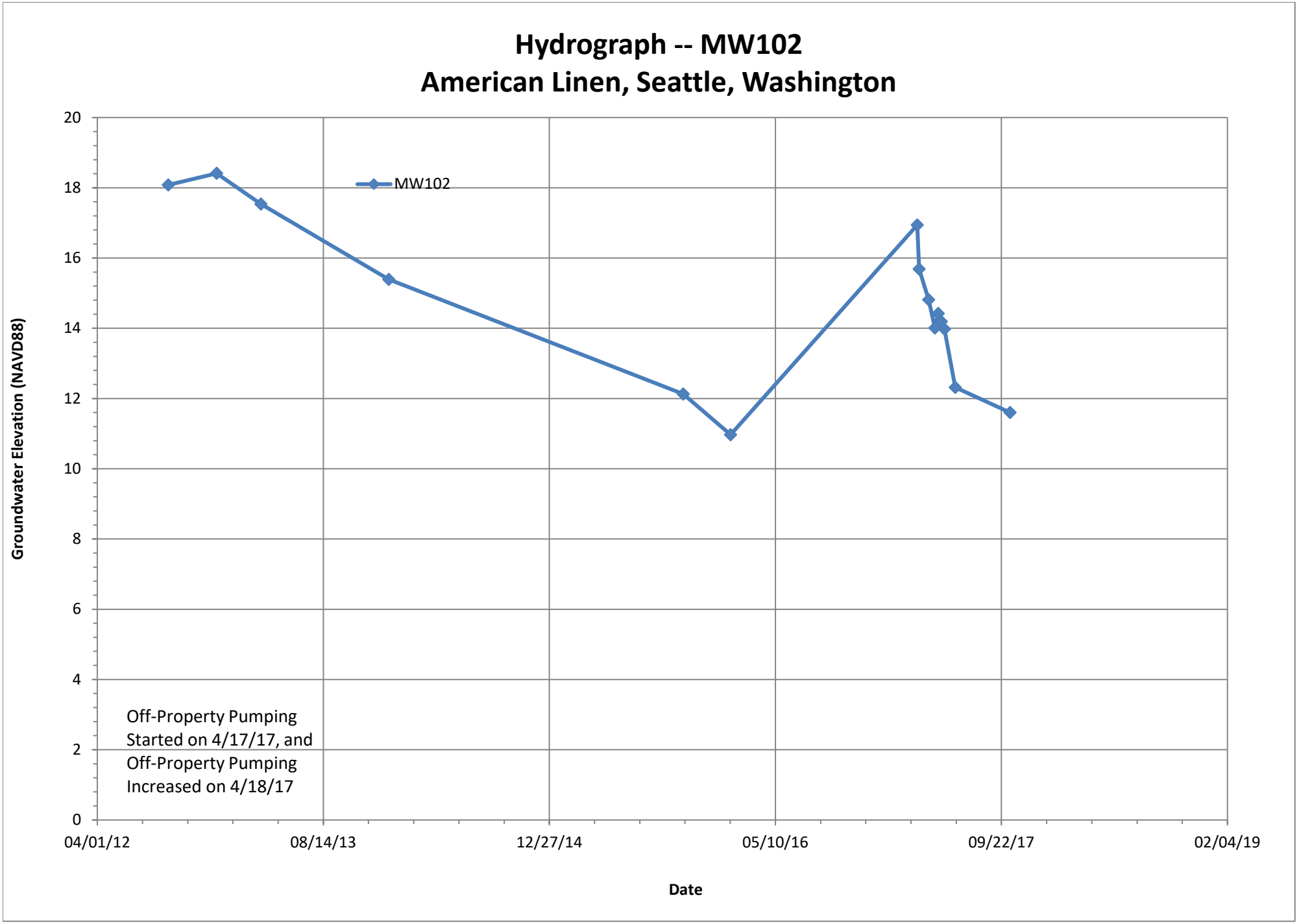
# Hydrograph -- MW126
# American Linen, Seattle, Washington

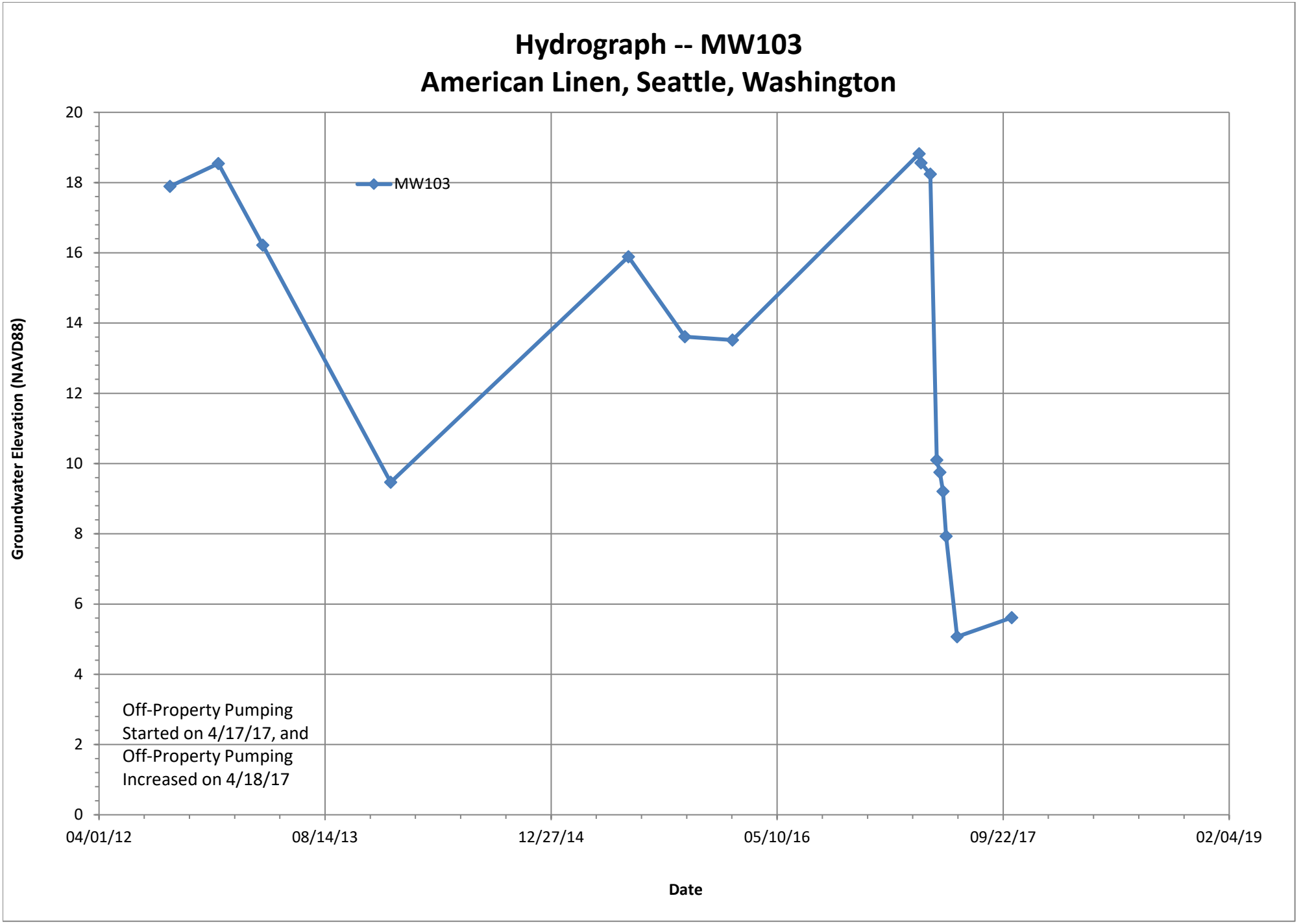


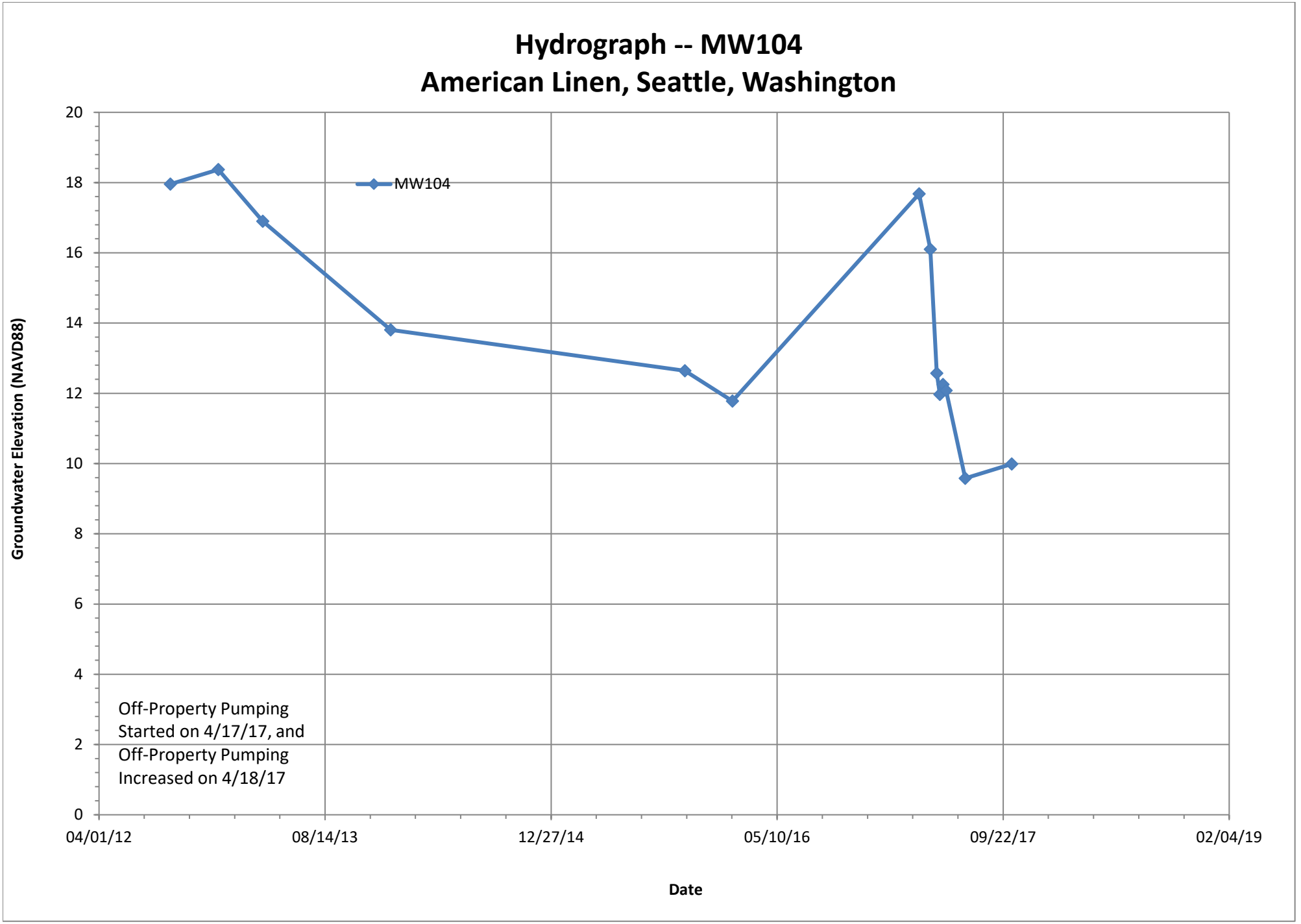
# Hydrograph -- W-MW-01
# American Linen, Seattle, Washington

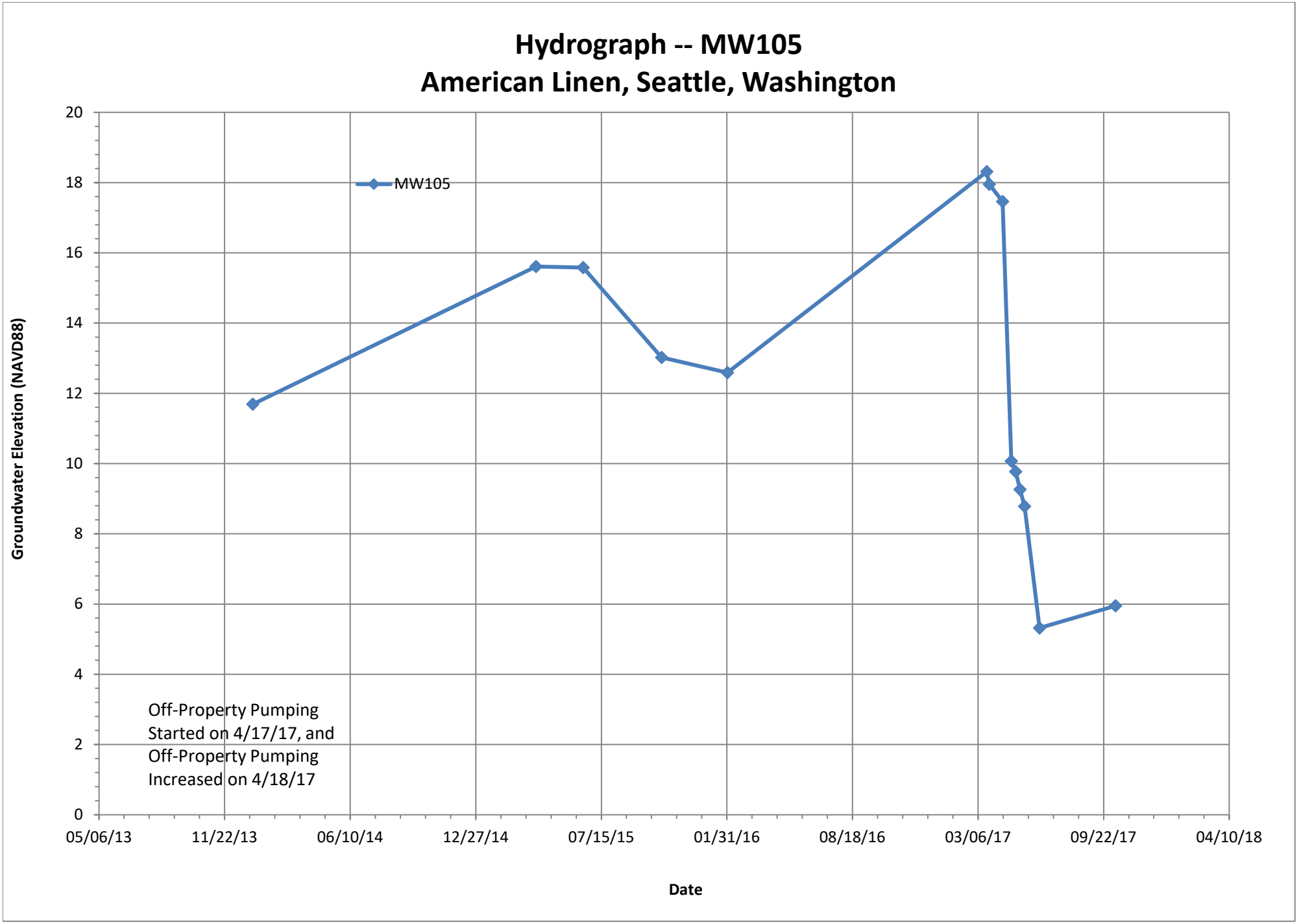



Hydrograph -- W-MW-02
American Linen, Seattle, Washington
Groundwater Elevation (NAVD88)
30
25
20
15
10
5
0
W-MW-02
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date

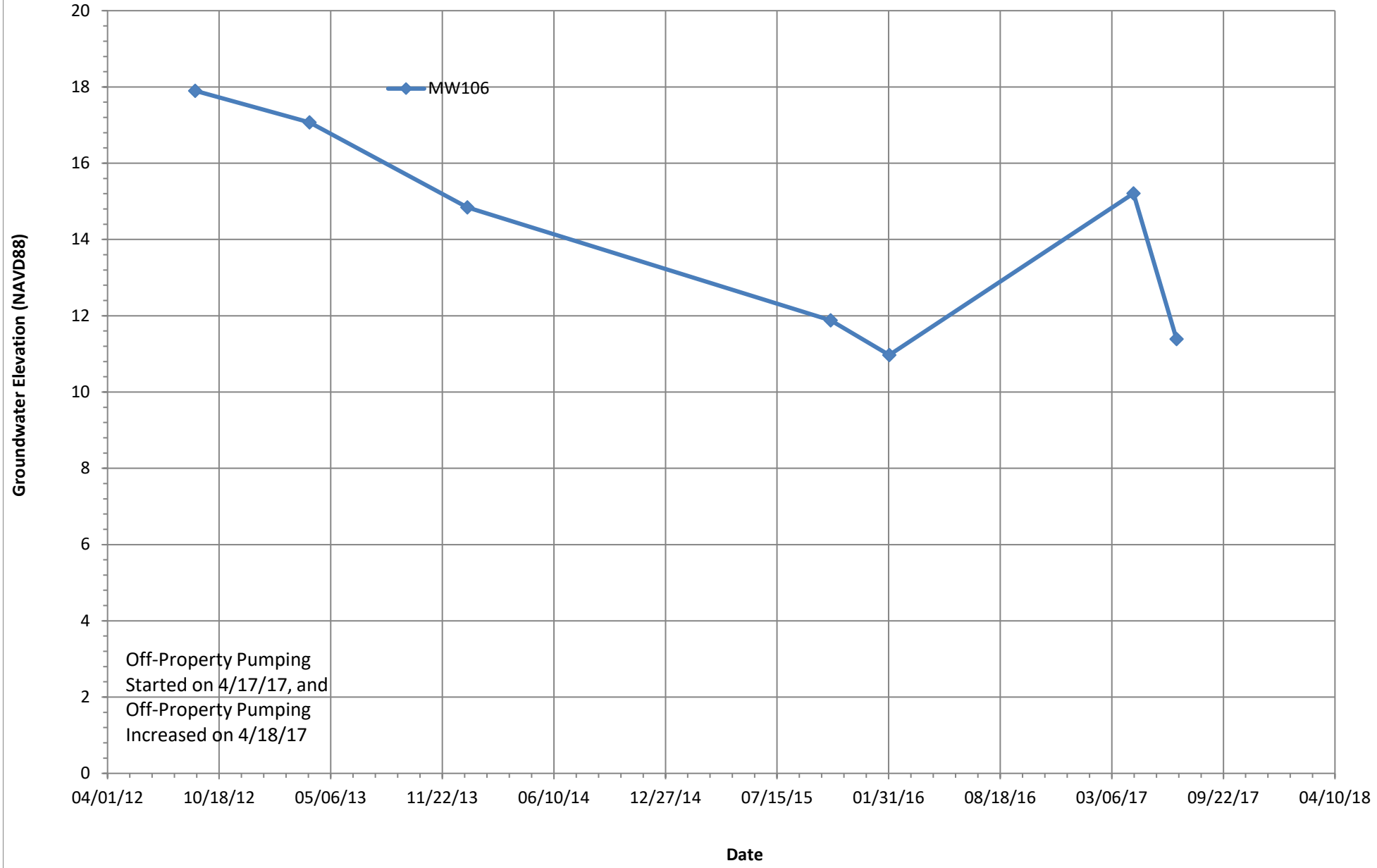

Hydrograph -- MW102
American Linen, Seattle, Washington
MW102
Groundwater Elevation (NAVD88)
20
18
16
14
12
10
8
6
4
2
0
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17

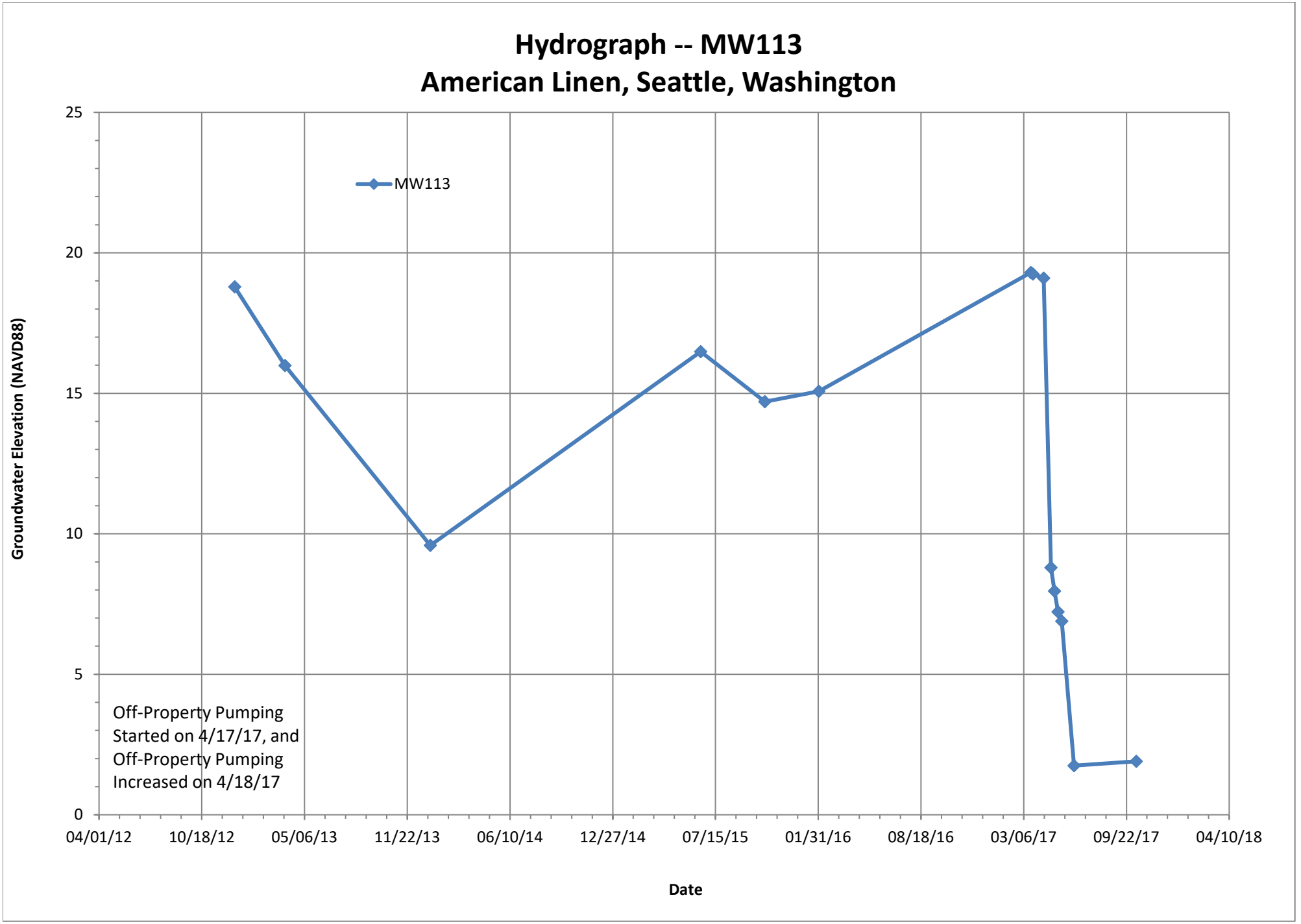

Hydrograph -- MW103
American Linen, Seattle, Washington
Groundwater Elevation (NAVD88)
20
18
16
14
12
10
8
6
4
2
0
MW103
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date

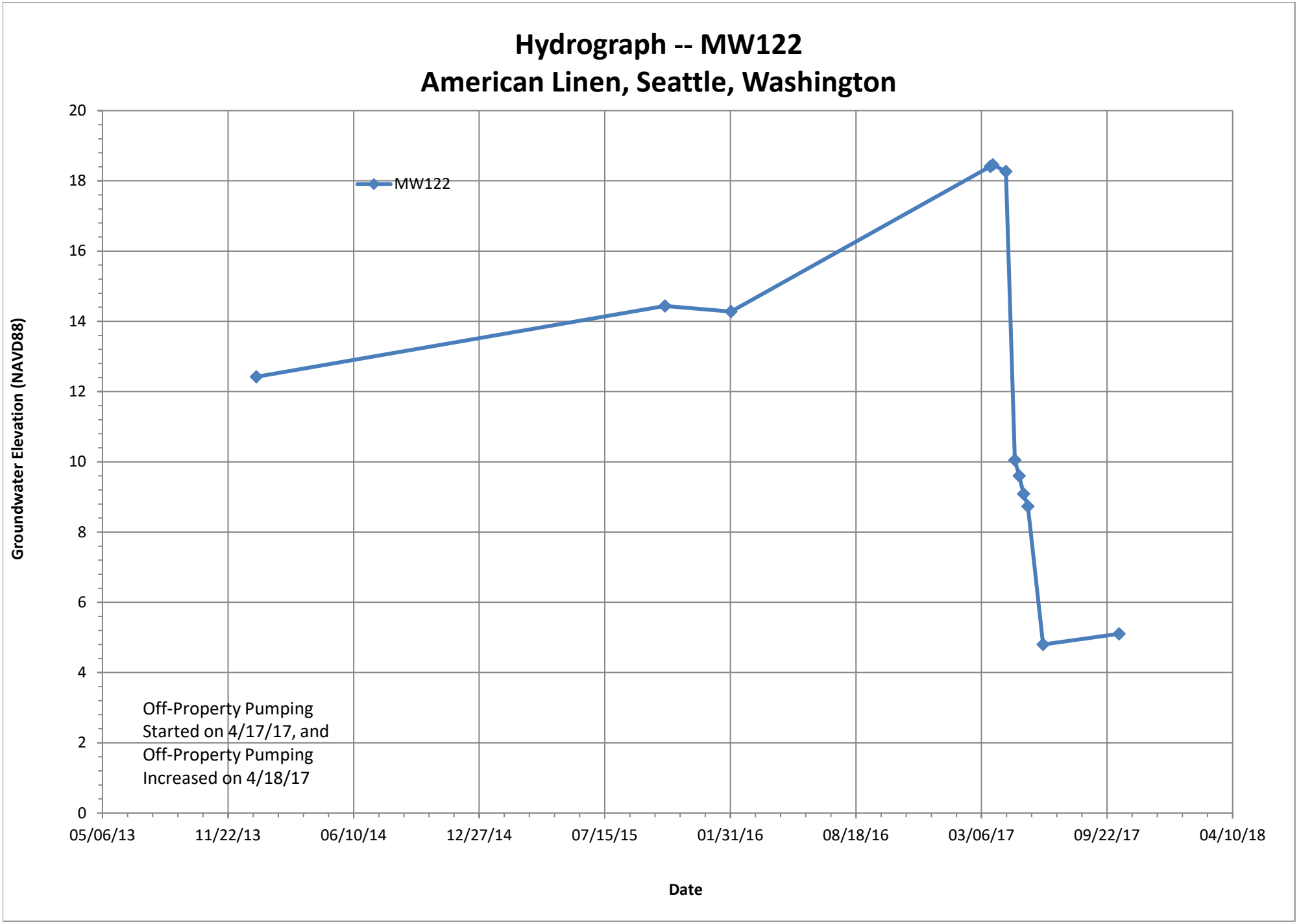

Hydrograph -- MW104
American Linen, Seattle, Washington
MW104
Groundwater Elevation (NAVD88)
20
18
16
14
12
10
8
6
4
2
0
04/01/12
08/14/13
12/27/14
05/10/16
09/22/17
02/04/19
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17


Hydrograph -- MW105
American Linen, Seattle, Washington
MW105
Groundwater Elevation (NAVD88)
20
18
16
14
12
10
8
6
4
2
0
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping
Started on 4/17/17, and
Off-Property Pumping
Increased on 4/18/17

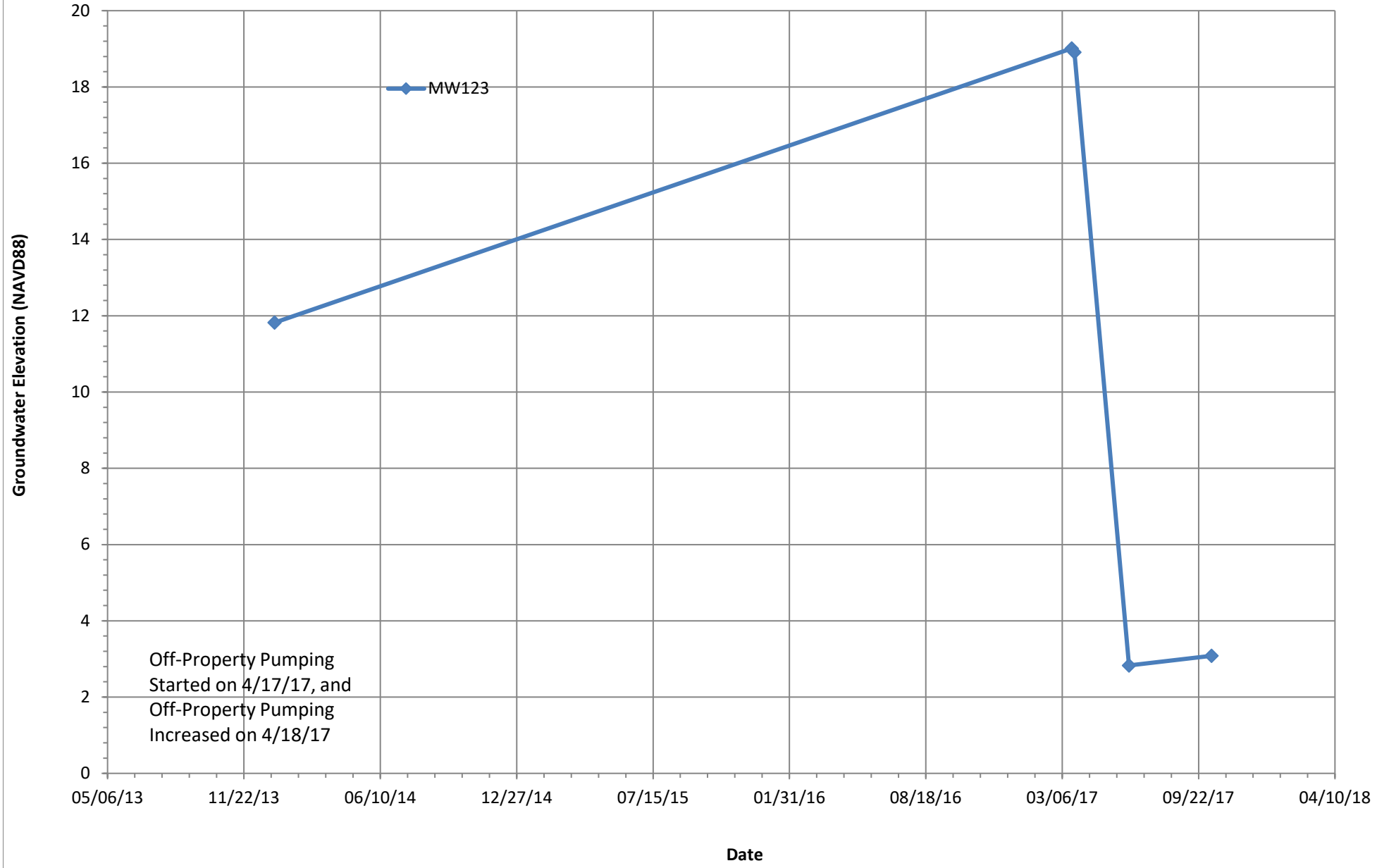
# Hydrograph -- MW106
# American Linen, Seattle, Washington



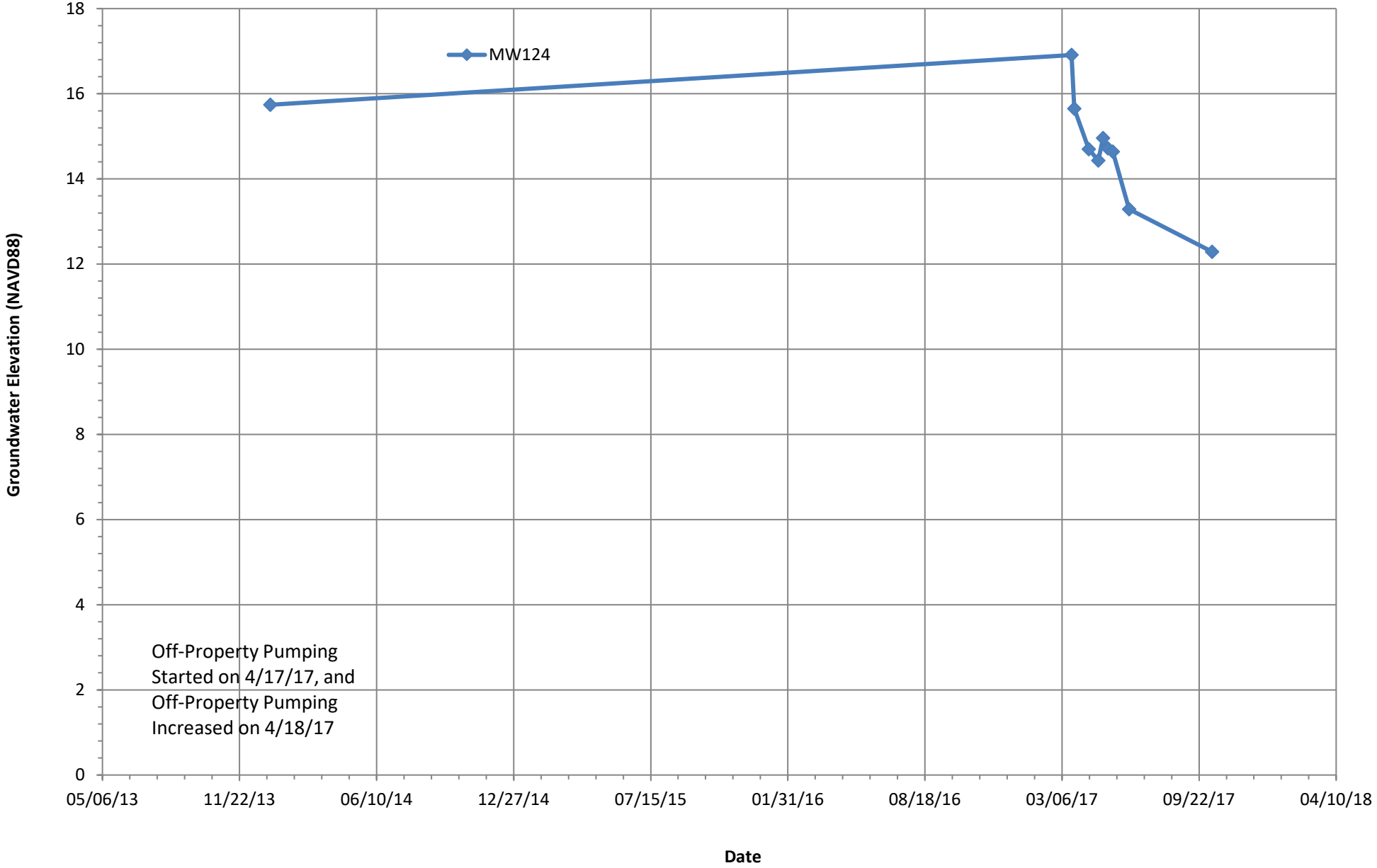

Hydrograph -- MW113
American Linen, Seattle, Washington
MW113
Groundwater Elevation (NAVD88)
25
20
15
10
5
0
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17


Hydrograph -- MW122
American Linen, Seattle, Washington
Groundwater Elevation (NAVD88)
20
18
16
14
12
10
8
6
4
2
0
MW122
Off-Property Pumping Started on 4/17/17, and Off-Property Pumping Increased on 4/18/17
05/06/13
11/22/13
06/10/14
12/27/14
07/15/15
01/31/16
08/18/16
03/06/17
09/22/17
04/10/18
Date

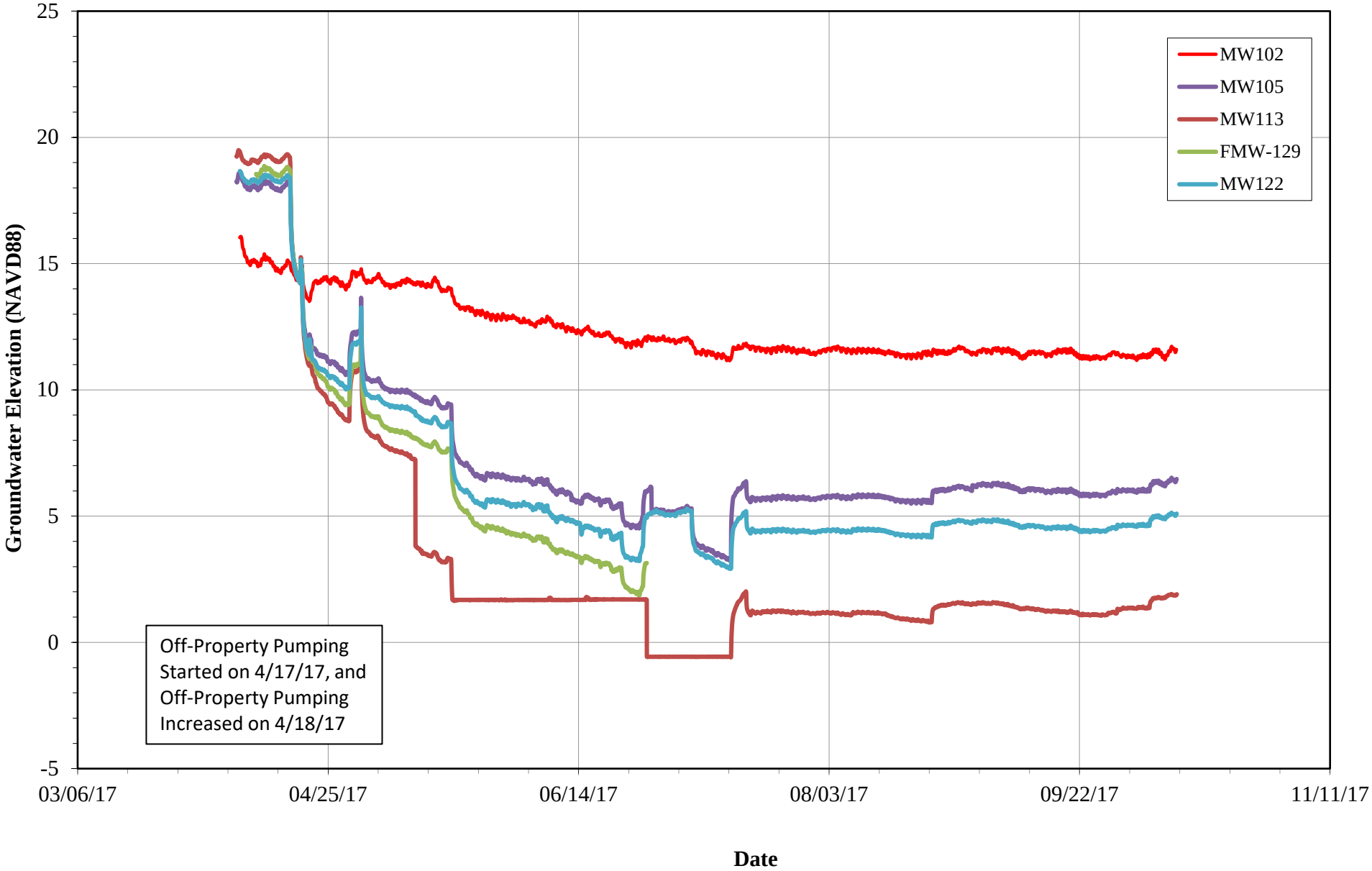
# Hydrograph -- MW123
## American Linen, Seattle, Washington



# Hydrograph -- MW124
## American Linen, Seattle, Washington

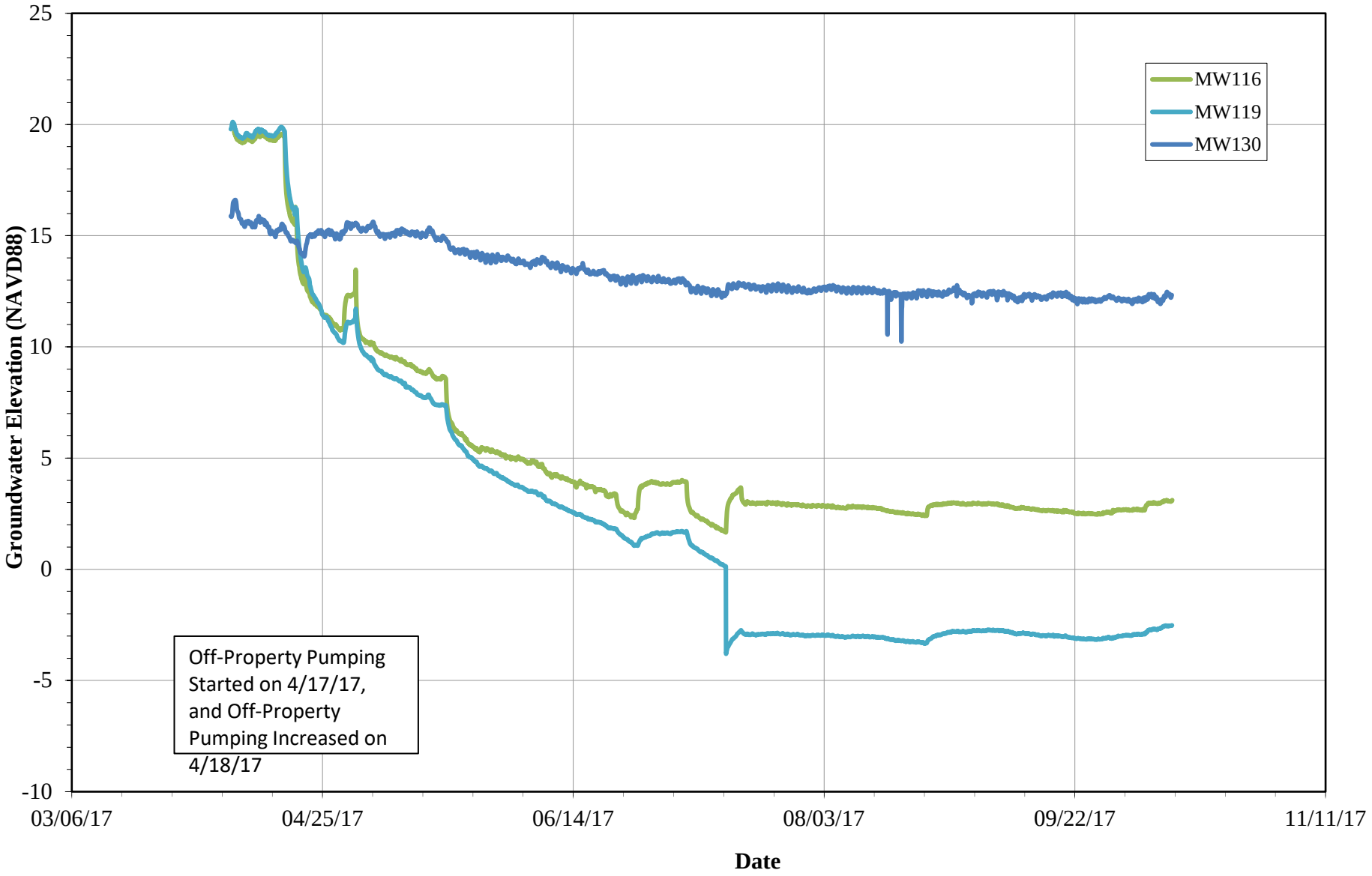


**Hydrograph -- Deep Water Bearing Zone**
**American Linen, Seattle, Washington**



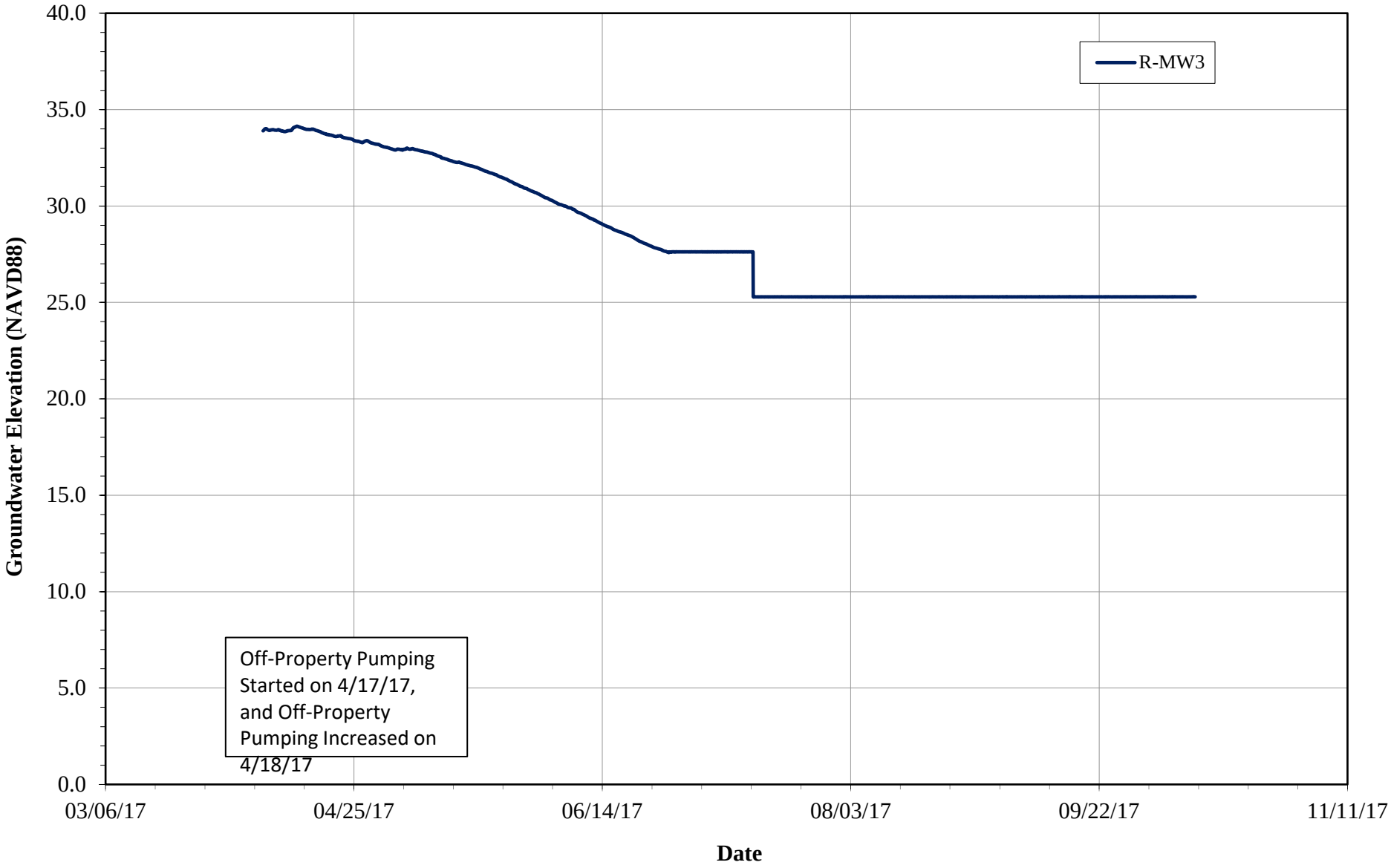

S141300102W_2410_AppH

**Hydrograph -- Intermediate Water Bearing Zone**
**American Linen, Seattle, Washington**

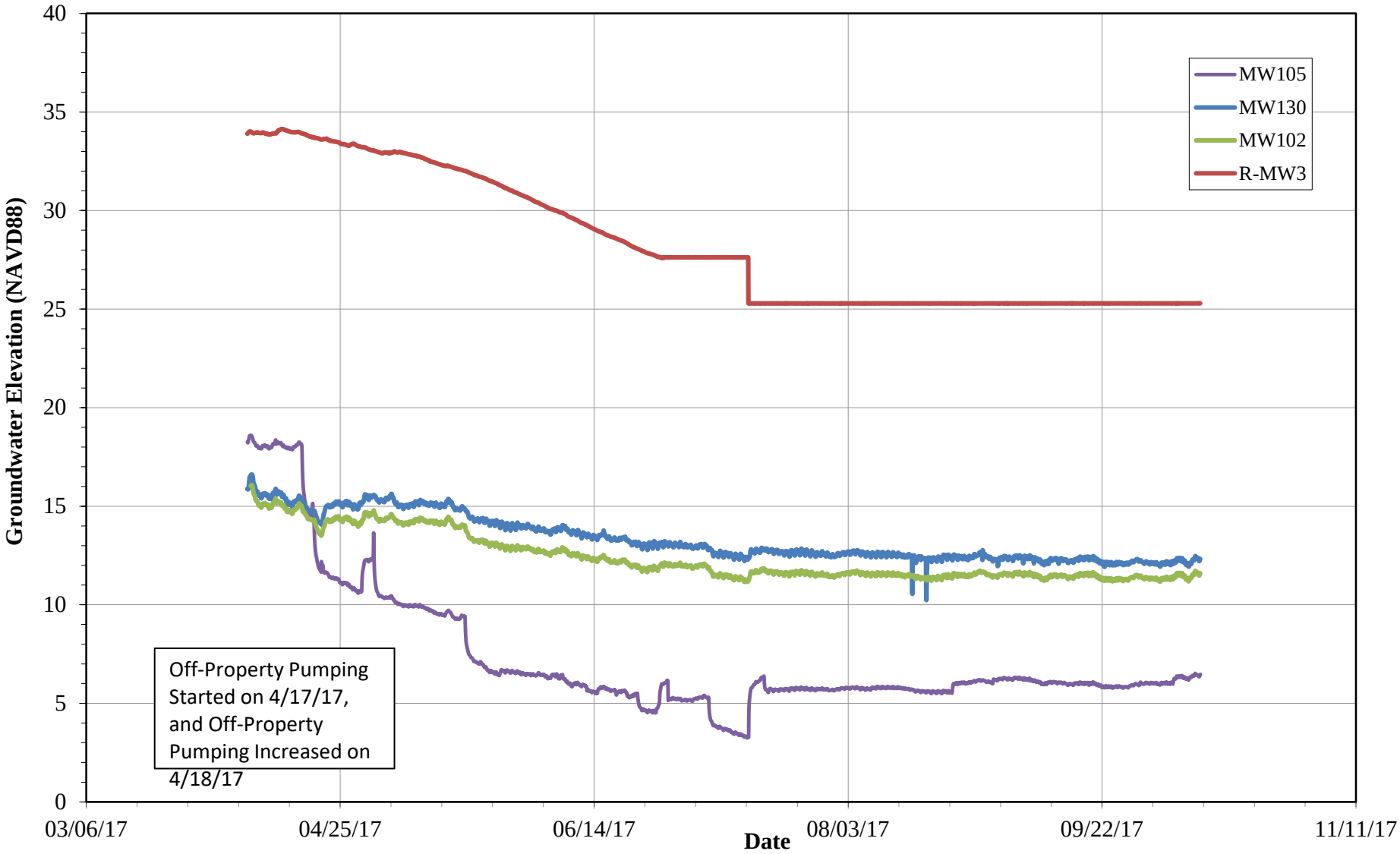



S141300102W_2410_AppH

**Hydrograph -- Shallow Water Bearing Zone**
**American Linen, Seattle, Washington**

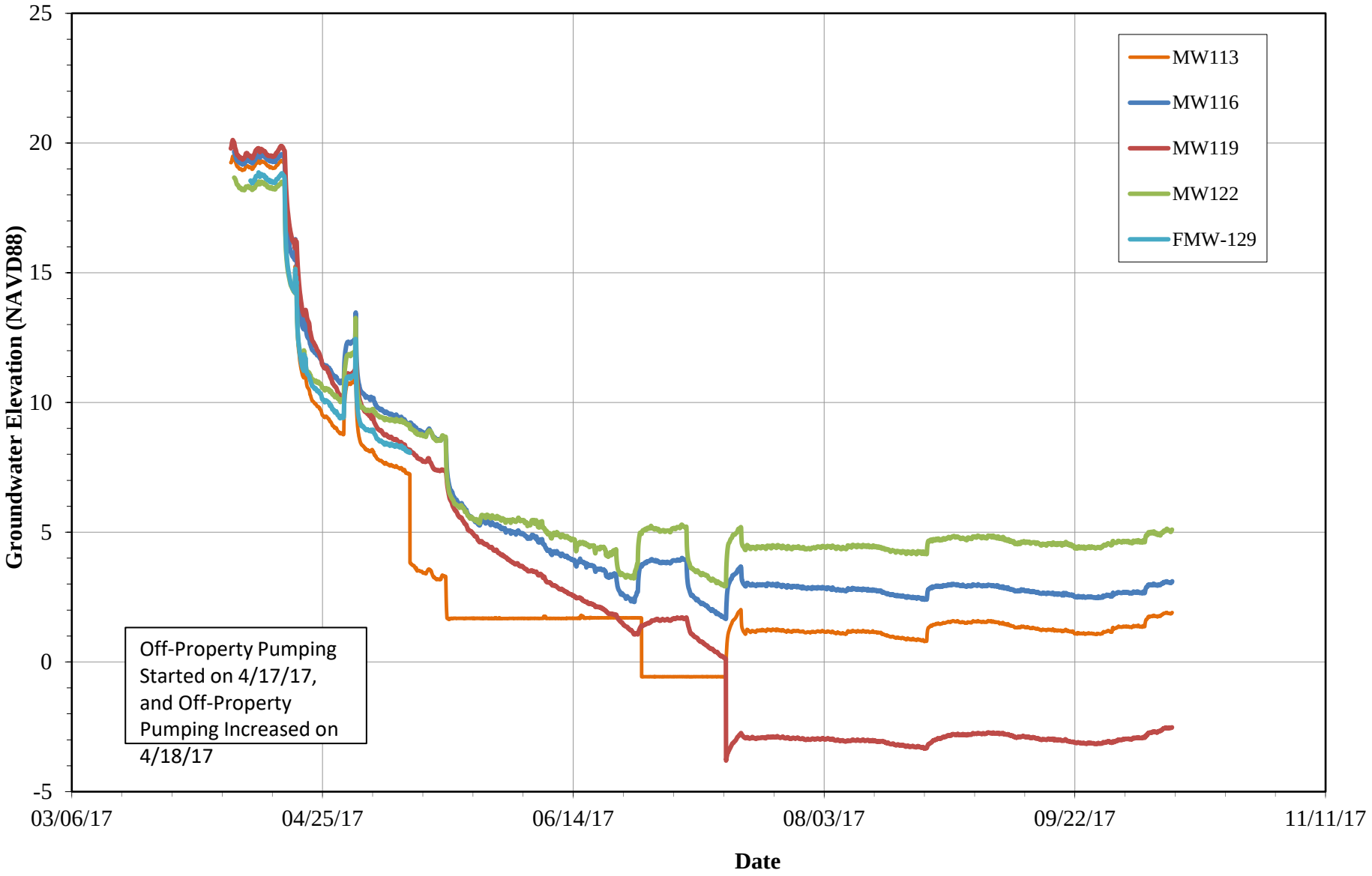


**Hydrograph -- Wells West of Alley Between 8th & 9th Avenue North**
**American Linen, Seattle, Washington**

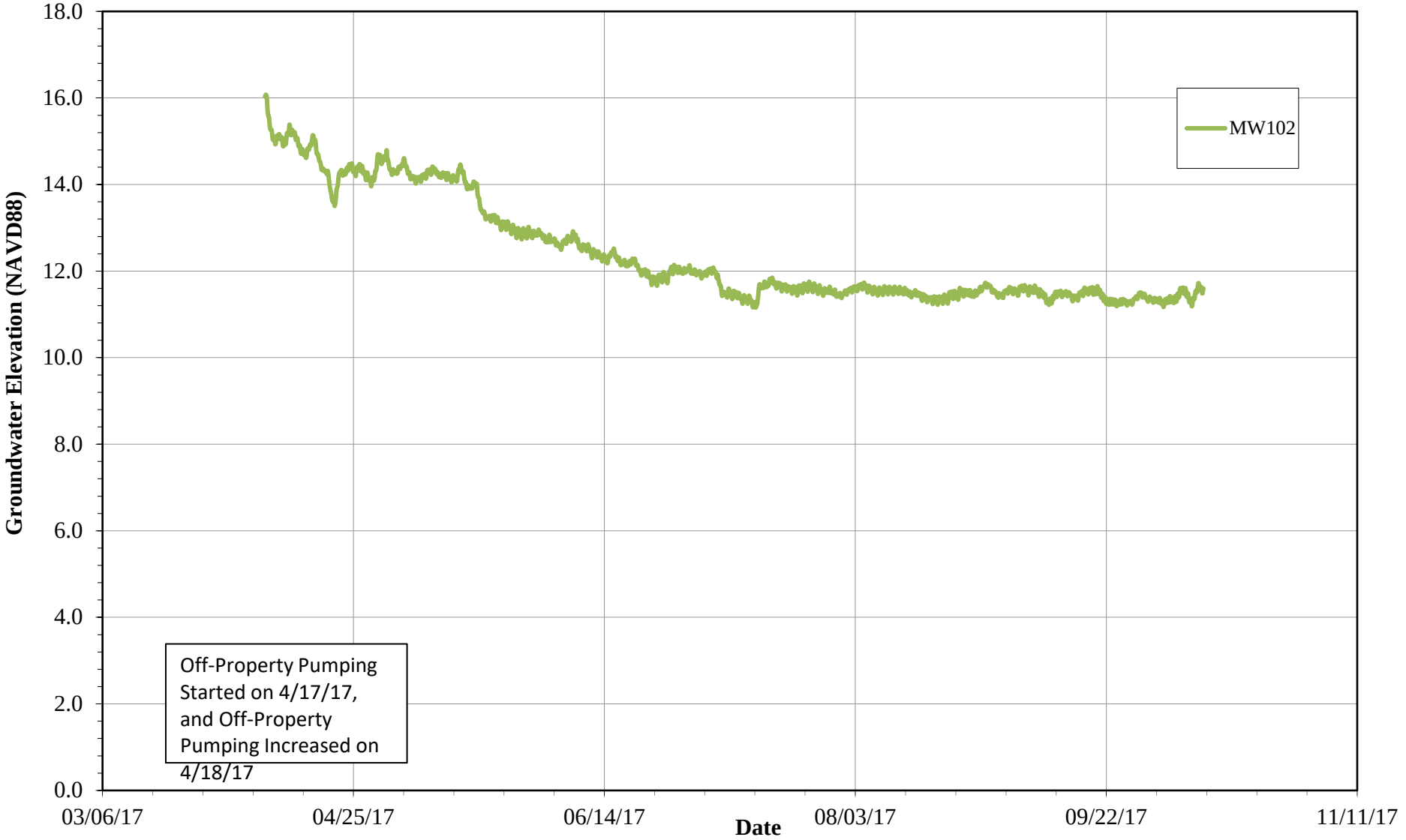



S141300102W_2410_AppH

**Hydrograph -- Wells East of Alley Between 8th & 9th Avenue North**
**American Linen, Seattle, Washington**

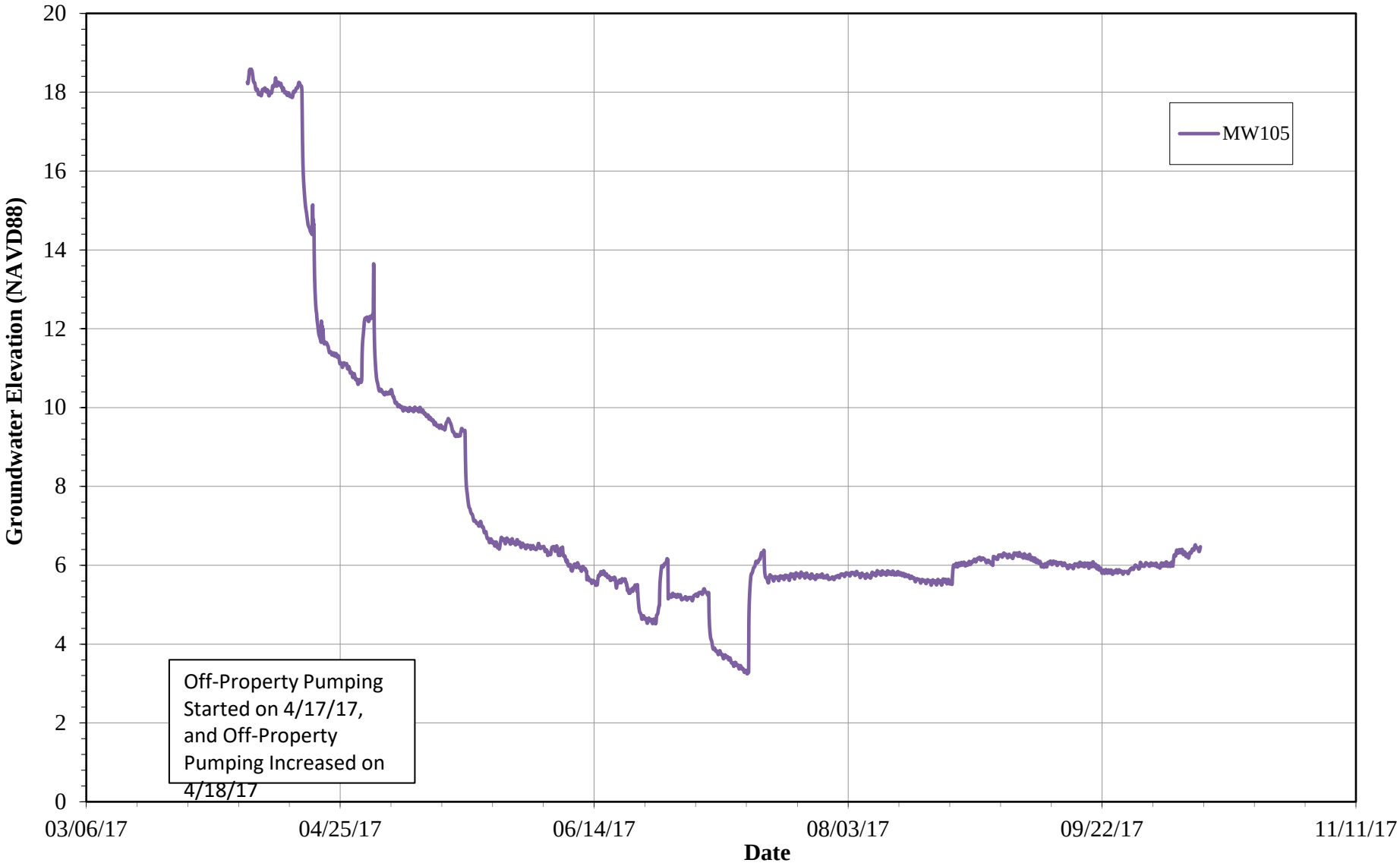


**Hydrograph -- MW102**
**American Linen, Seattle, Washington**

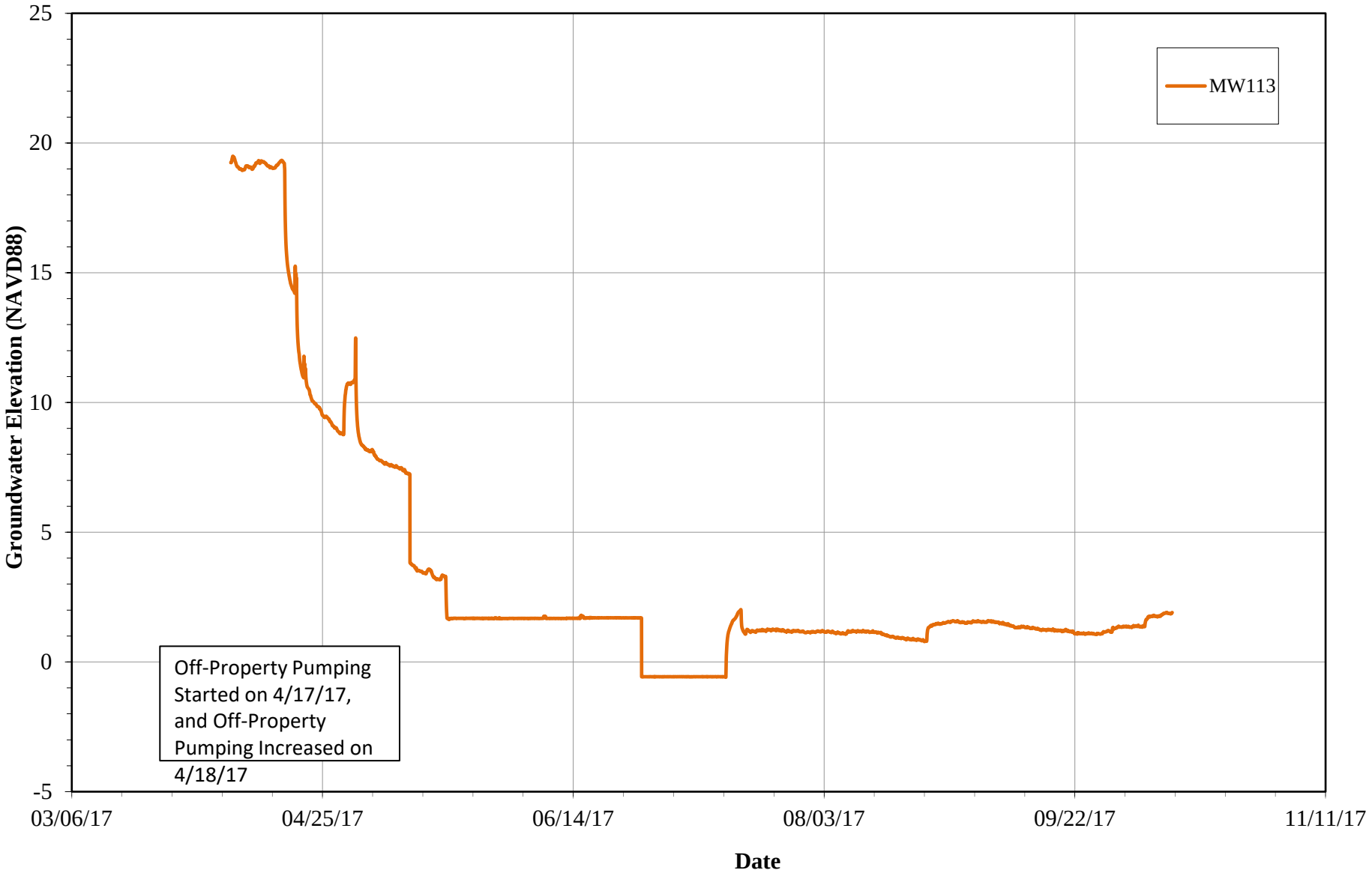



S141300102W_2410_AppH

**Hydrograph -- MW105**
**American Linen, Seattle, Washington**

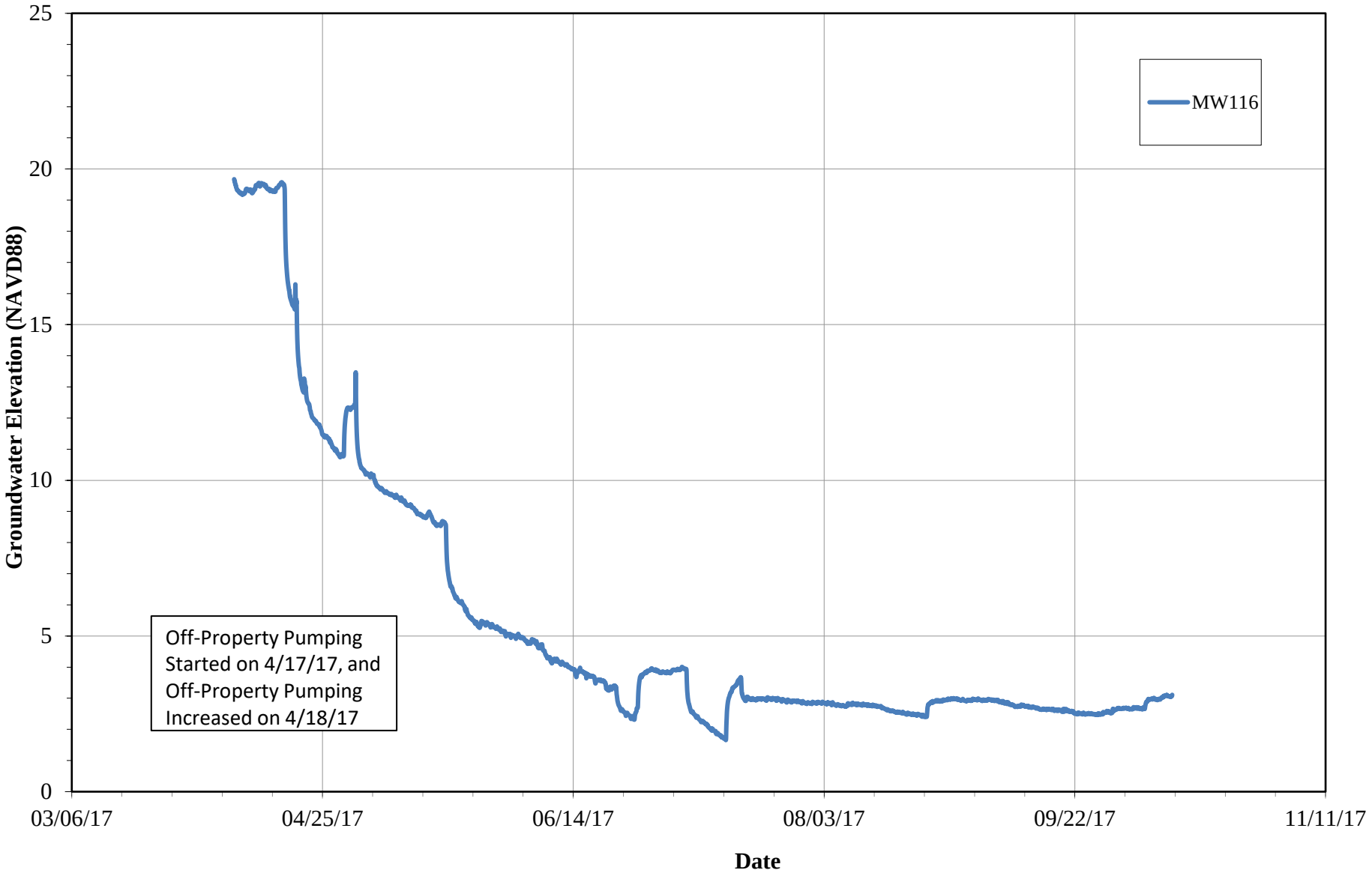


**Hydrograph -- MW113**
**American Linen, Seattle, Washington**



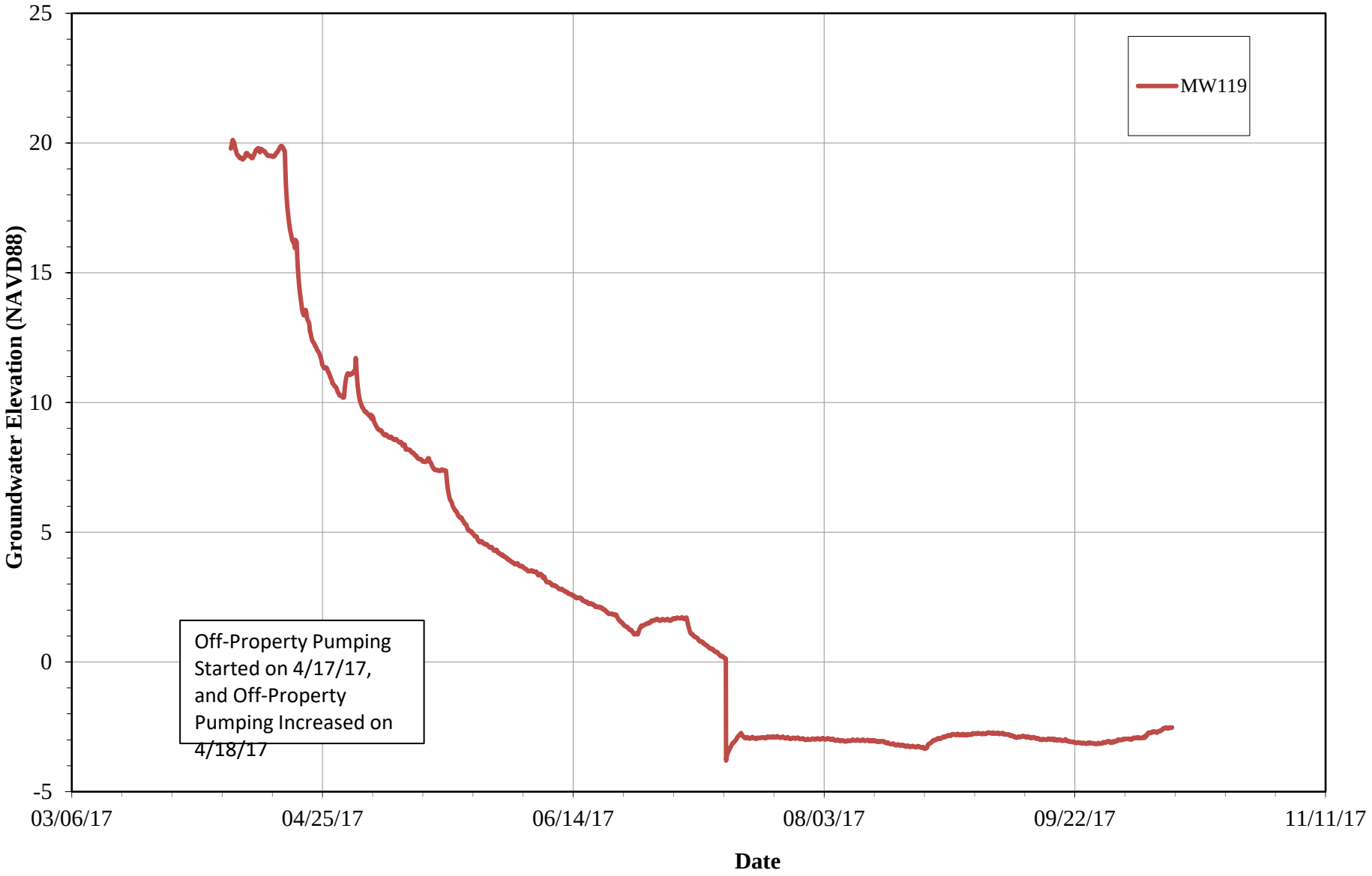

S141300102W_2410_AppH

**Hydrograph -- MW116**
**American Linen, Seattle, Washington**



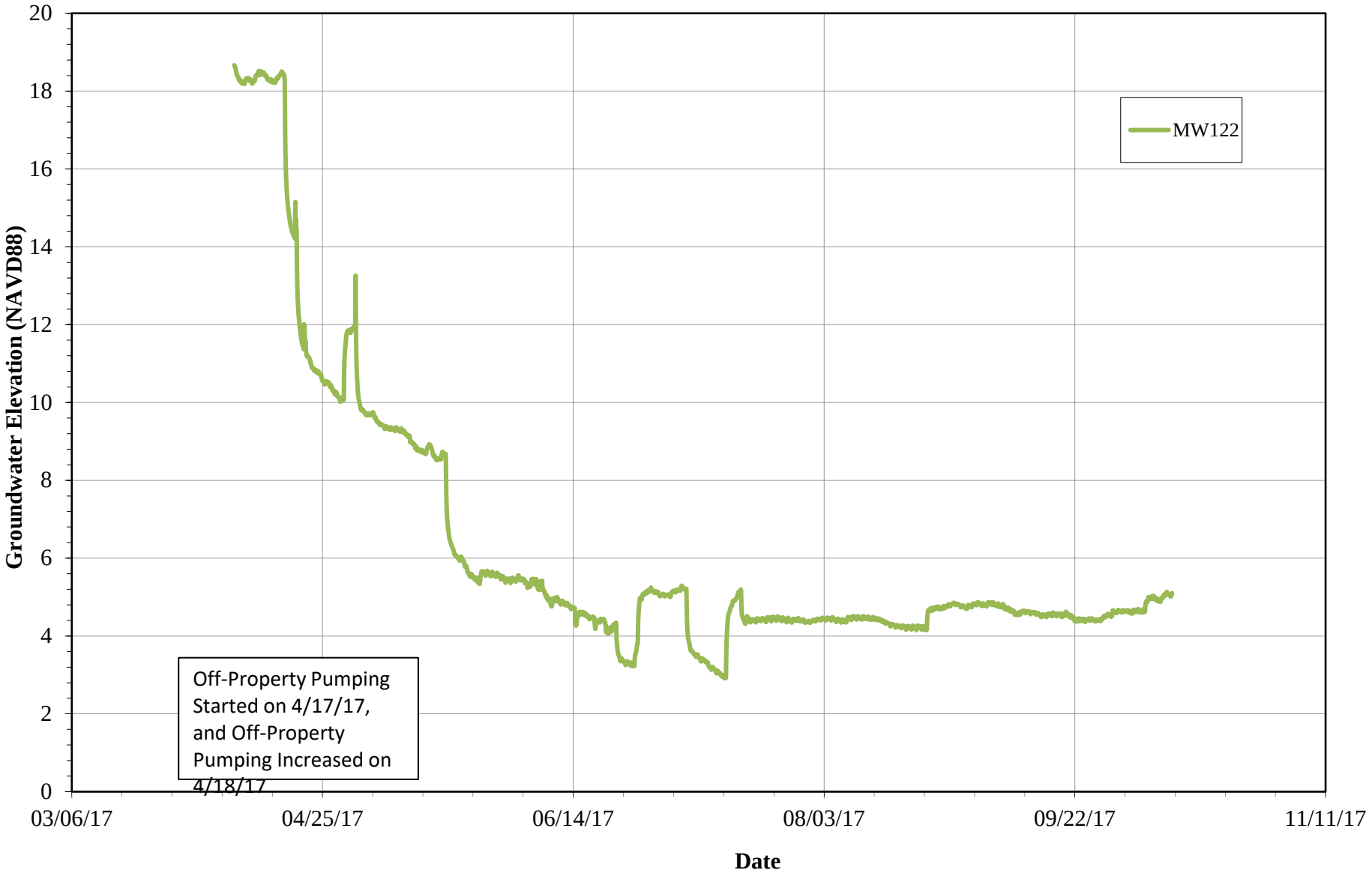

S141300102W_2410_AppH

**Hydrograph -- MW119**
**American Linen, Seattle, Washington**

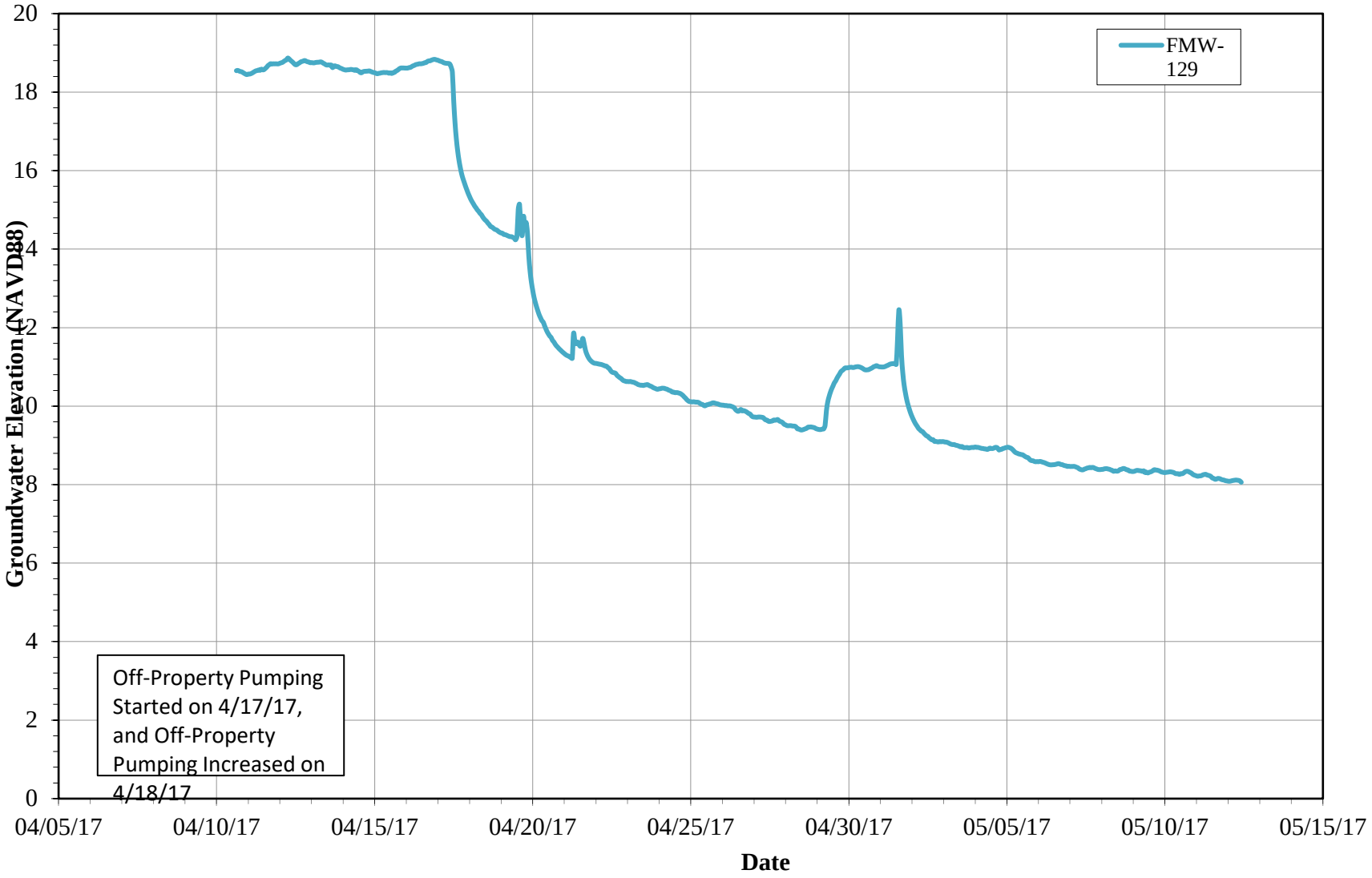



S141300102W_2410_AppH

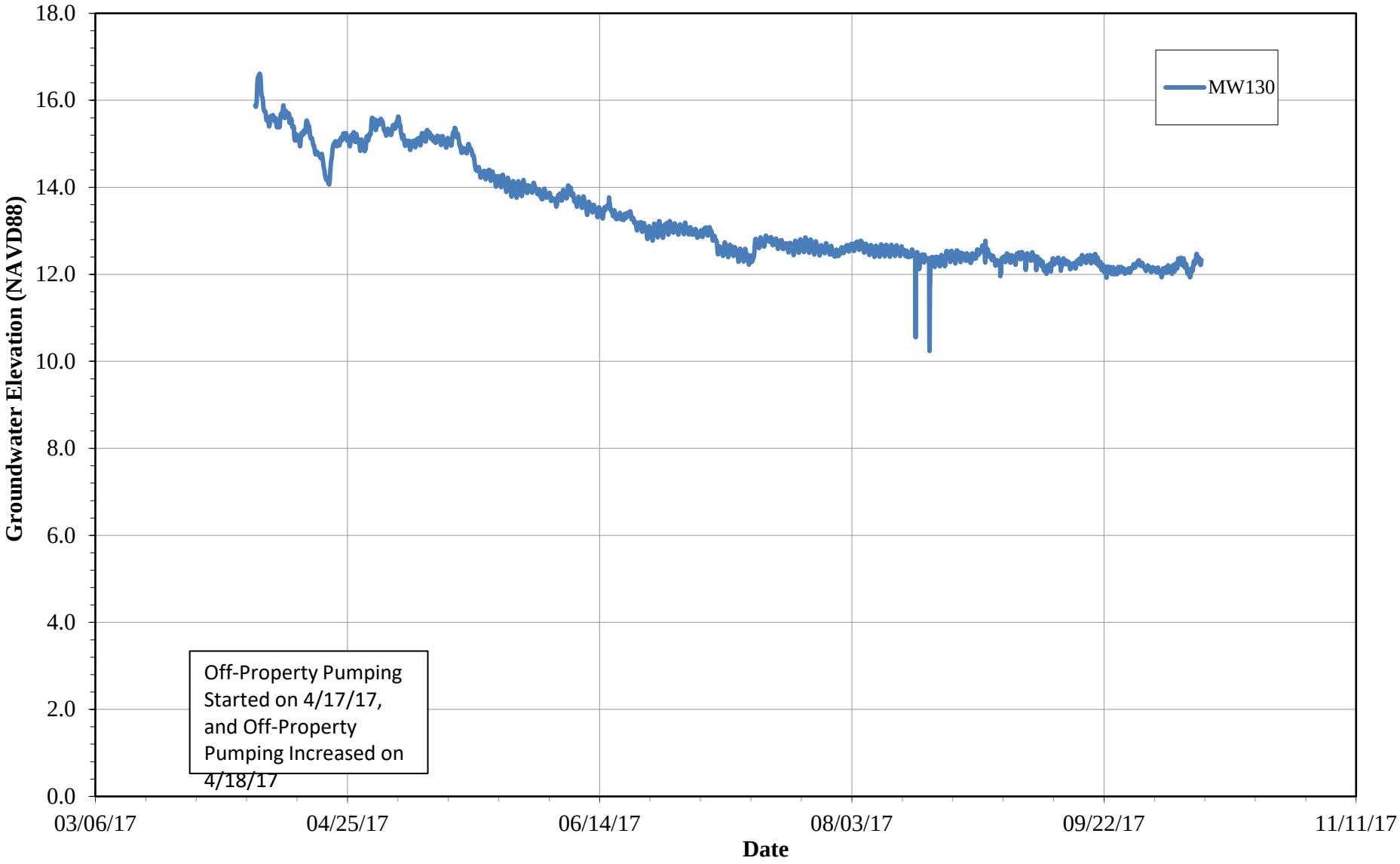
**Hydrograph -- MW122**
**American Linen, Seattle, Washington**



**Hydrograph -- FMW-129**
**American Linen, Seattle, Washington**



**Hydrograph -- MW130**
**American Linen, Seattle, Washington**




S141300102W_2410_AppH

# APPENDIX I

# ISOTEC BENCH SCALE TREATABILITY STUDY REPORT

# BENCH SCALE TREATABILITY STUDY REPORT

**FORMER AMERICAN LINEN SITE**
**SEATTLE, WASHINGTON**

**NOVEMBER 3, 2017**

***PREPARED FOR***

**PES ENVIRONMENTAL, INC.**
**1215 Fourth Ave., Suite 1350**
**Seattle, WA 98161**

**ISOTEC PROJECT NO. 901312**

**In-Situ Oxidative Technologies, Inc.**
**6452 Fig Street, Suite C**
**Arvada, Colorado 80004**
**Phone: (303) 843-9079, Fax: (303) 843-9094**
**www.insituoxidation.com**

*SBA Certified Small Business*

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5.0 RESULTS AND DISCUSSION ..... 3

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TABLE 2 ..... VOC RESULTS

## ATTACHMENTS

ATTACHMENT A..... BENCH STUDY ANALYTICAL DATA PACKAGES

# ACRONYMS

| | |
|---|---|
| Accutest | Accutest Laboratories |
| COCs | Constituents of concern |
| g | Gram |
| g/kg | Grams per kilogram |
| $H_2O_2$ | Hydrogen peroxide |
| GW | Groundwater |
| ISCO | In-situ chemical oxidation |
| ISOTEC | In-Situ Oxidative Technologies, Inc. |
| MFR | Modified Fenton's reagent |
| mg | Milligram |
| mg/kg | Milligrams per kilogram |
| mg/l | Milligrams per liter |
| ml | Milliliters |
| ND | Non-detect concentration |
| PCE | Perchloroethene |
| ppm | Parts per million |
| VOC | Volatile organic compound |
| TOC | Total organic carbon |
| µg | Microgram |
| µg/kg | Micrograms per kilogram |

## 1.0 INTRODUCTION

In-Situ Oxidative Technologies, Inc. (ISOTEC$^{SM}$) was retained by PES Environmental (PES) to conduct an in-situ chemical oxidation (ISCO) bench-scale laboratory treatability study (study) on soil samples collected from the Former American Linen site in Seattle Washington. The target constituent for the study was perchloroethene (PCE). The reagent evaluated during the study was modified Fenton's reagent (MFR). The objective of the bench scale study was to evaluate the potential effectiveness of MFR in the treatment of PCE impacted soil at the site.

## 2.0 BENCH SCALE STUDY OBJECTIVES

Since it is widely accepted, from both literature and ISOTEC experience, that MFR oxidizes PCE, the objectives of the study were twofold:

- To establish that there are no unknown soil characteristics at the site that would prevent MFR from being effective against PCE, and

- To determine the relative effectiveness of two dosage rates, low and high.

The tests were soil and reagent only tests, no additional water was added to the reactor to form a slurry. Slurry tests are industry standards for evaluating mass destruction ratios between oxidant and contaminant. This study was designed to primarily evaluate MFR reactions with the soil.

## 3.0 SAMPLE COLLECTION AND PREPARATION

PES collected two soil samples, B-211-60-65 and MW-135-46, from the site on Aug. 18$^{th}$ and 24$^{th}$, 2017, respectively and delivered them to ISOTEC for use in the test. Sample MW-135-46 was selected to perform the treatability experiment (COC-test) with consultation of PES. Prior to initiating the experiment, the soil sample was composited by removing rock fragments and pebbles, and turning/kneading within the ziploc$^{TM}$ bag until the color and texture of the contents appeared to be uniform. Then a portion of the composited soil was collected and submitted to SGS Accutest Laboratories (Accutest) of Dayton, NJ for VOCs, GRO, total organic carbon (TOC), iron and manganese analyses for initial characterization of the sample. The remaining composited soils were used to perform the treatability experiment.

## 4.0 EXPERIMENTAL PROCEDURES

A total of three reactors were set up in 240 milliliter (ml) VOC-tight glass containers sealed with screw top caps fitted with Teflon septa to facilitate reagent injections. One of the reactors served as "Control" and the other 2 as "treatment" reactors to evaluate 2 different (low and high) reagent doses. Exactly 100 grams (g) of composited soil was introduced into each container. MFR was injected into each treatment reactor without opening the container in 2 incremental volumes and mixed thoroughly with the sample contents after each injection. A time gap of 24 hours was maintained between each injection. Distilled (DI) water was used to compensate for volume differences between reactors. The “control” reactor received DI water instead of reagent. A multiple dosage approach (incremental approach) was used to increase treatment efficiency, minimize gas formation and the resulting pressure buildup. The final reagent concentrations achieved were 6 g/kg (grams of oxidant per kilogram of soil being tested) for the low dose and 24 g/kg for the high dose. The two treatment reactors were quenched after 24 hours following the 2nd injection. Soil samples were collected from each reactor (Control and 2 treatment reactors) and submitted to Accutest for VOCs and GRO analyses.

**Experiment Summary**

| Oxidant dose | **MFR-test** |
|---|---|
| Low dose | 6 g/kg |
| High dose | 24 g/kg |
| Test Duration | 2 days |
| | |

Note: Oxidant doses are presented as grams of oxidant per kilogram of soil being tested.

## 5.0 RESULTS AND DISCUSSION

Results indicate that the low dose application was the most effective in treating PCE. Summary results are presented below.

- Using Low dose MFR, PCE was treated from 12,287 micrograms per liter (µg/kg) to 5,960 µg/kg following the low dose treatment. A reduction of 57%. The high dose treatment achieved a reduction of 51%. This is most likely because the larger volume of reagent applied in each injection in the high dose compared to the low dose resulted in an inefficient reaction with significant oxidant wastage thus resulting in a lower COC reduction. Results are summarized in **Table 2** (attached).
- There does not appear to any soil characteristics that would prevent MFR from oxidizing PCE. MFR should be an effective oxidizing agent under the American Linen site conditions.

Based upon results from the study, MFR applications at the American Linen site should consist of multiple low dose applications as opposed to an attempt to use high doses and fewer applications. An additional study is underway to evaluate PCE mass reductions over multiple low dose applications. These tests will be slurry tests using site soil mixed with distilled water to achieve better contact between MFR and PCE; allowing for better mass ratio comparisons.

# TABLES

## Table 1. Initial Characterization
## American Linen Site, Seattle, Washington
## ISOTEC Project #901312

| **Sample ID**<br>**Matrix** | **MW-135-46**<br>**Soil** | |
|---|---|---|
| **VOCs (ug/kg)** | | |
| Acetone | ND (6.6) [a] | |
| Carbon disulfide | 1.00 | J |
| cis-1,2-Dichloroethene | 48.30 | |
| trans-1,2-Dichloroethene | 0.63 | J |
| Chloroform | ND (2.6) | |
| Tetrachloroethene (PCE) | 13,000 | |
| Trichloroethene | 88.00 | |
| **Total VOCs (ug/kg)** | **13,137.93** | |
| TPH-GRO (C6-C10) (mg/kg) | **ND (5.6)** | |
| Total Organic Carbon (mg/kg) | <1,200 | |
| **Other Parameters** | | |
| Iron (mg/kg) | 12,800 | |
| Manganese (mg/kg) | 203 | |
| Percent Solids (%) | 86.10 | |

Note:
mg/kg = milligrams per kilogram  ug/kg = micrograms per kilogram

## Table 2. COC Treatment Results
## American Linen Site, Seattle, Washington
## ISOTEC Project #901312

| Sample ID | MW-135-46 | R1 | R2 | R3 |
|---|---|---|---|---|
| Sample Description | Initial | Control | MFR-L | MFR-H |
| Catalyst Used | none | none | Cat-4260 | Cat-4260 |
| Oxidant Used | none | none | H2O2 | H2O2 |
| Oxidant Added (by weight) | 0 g/kg | 0 g/kg | 6 g/kg | 24 g/kg |
| Experiment Duration (days) | t = 0 day | t = 2 days | | |
| **VOCs (ug/kg)** | | | | |
| Acetone | ND (6.6) [a] | ND (7.6) [a] | ND (420) | 178 |
| Carbon disulfide | 1.00 J | 0.81 J | ND (40) | ND (0.71) |
| cis-1,2-Dichloroethene | 48.3 | 30.9 | 206.0 | 9.6 |
| trans-1,2-Dichloroethene | 0.63 J | ND (0.69) | ND (38) | ND (0.68) |
| Chloroform | ND (2.6) | ND (3.0) | ND (160) | 8.2 |
| Tetrachloroethene (PCE) | 13,000 | 12,200 | 5,290 | 6,070 |
| Trichloroethene | 88.0 | 55.3 | 464.0 | 20.4 |
| **Total Target VOCs (ug/kg)*** | **13,137.93** | **12,287.01** | **5,960.00** | **6,108.20** |
| **TPH-GRO (C6-C10) (mg/kg)** | ND (5.6) | ND (6.5) | ND (6.5) | ND (6.9) |
| **Target VOC reduction** | **-** | **-** | **51.5%** | **50.3%** |
| **PCE reduction** | **-** | **-** | **56.6%** | **50.2%** |
| **Other Parameters** | | | | |
| Final pH value (SU) | - | **7.35** | **6.51** | **6.67** |
| Final ORP value (mV) | - | **79** | **130** | **140** |

Note:

MFR = Modified Fenton's Reagent

ug/kg = micrograms per kilogram, g/kg = grams per kilogram,

ND = Compound was analyzed for but not detected at the method detection limit (MDL) indicated by the number in ().

J = The result is less than the quantitation limit but greater than MDL.

* Target VOCs = All VOCs detected excluding acetone.

[a] Associated CCV outside of control limits high, sample was ND.

# ATTACHMENT A

LABORATORY ANALYTICAL DATA PACKAGES

**In-Situ Oxidative Technologies, Inc.**

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

*e-Hardcopy 2.0*
*Automated Report*

# Technical Report for

## Isotec

American Linen Site, WA

901312

SGS Accutest Job Number: JC52095

Sampling Date: 09/29/17

Report to:

Isotec
11 Princess Road Suite A
Lawrenceville, NJ 08648
YChin@insituoxidation.com

ATTN: Yan Chin

Total number of pages in report: **23**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Rocus Peters 732-329-0200

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# Sample Summary

Isotec

**Job No:** JC52095

American Linen Site, WA
Project No: 901312

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| JC52095-1 | 09/29/17 | 10:00 | | 09/29/17 | SO | Soil | R1 |
| JC52095-2 | 09/29/17 | 10:00 | | 09/29/17 | SO | Soil | R2 |
| JC52095-3 | 09/29/17 | 10:00 | | 09/29/17 | SO | Soil | R3 |
| JC52095-4 | 09/29/17 | 10:00 | | 09/29/17 | SO | Soil | MW-135-46 |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

# Summary of Hits

**Job Number:** JC52095
**Account:** Isotec
**Project:** American Linen Site, WA
**Collected:** 09/29/17

| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **JC52095-1** | **R1** | | | | | |
| Carbon disulfide | | 0.81 J | 2.4 | 0.72 | ug/kg | SW846 8260C |
| cis-1,2-Dichloroethene | | 30.9 | 1.2 | 0.48 | ug/kg | SW846 8260C |
| Tetrachloroethene | | 12200 | 130 | 41 | ug/kg | SW846 8260C |
| Trichloroethene | | 55.3 | 1.2 | 0.65 | ug/kg | SW846 8260C |
| **JC52095-2** | **R2** | | | | | |
| cis-1,2-Dichloroethene [a] | | 206 | 65 | 26 | ug/kg | SW846 8260C |
| Tetrachloroethene [a] | | 5290 | 130 | 41 | ug/kg | SW846 8260C |
| Trichloroethene [a] | | 464 | 65 | 36 | ug/kg | SW846 8260C |
| **JC52095-3** | **R3** | | | | | |
| Acetone | | 178 | 12 | 7.4 | ug/kg | SW846 8260C |
| cis-1,2-Dichloroethene | | 9.6 | 1.2 | 0.47 | ug/kg | SW846 8260C |
| Methylene chloride | | 8.2 | 5.8 | 2.9 | ug/kg | SW846 8260C |
| Tetrachloroethene | | 6070 | 140 | 44 | ug/kg | SW846 8260C |
| Trichloroethene | | 20.4 | 1.2 | 0.64 | ug/kg | SW846 8260C |
| **JC52095-4** | **MW-135-46** | | | | | |
| Carbon disulfide | | 1.0 J | 2.1 | 0.63 | ug/kg | SW846 8260C |
| cis-1,2-Dichloroethene | | 48.3 | 1.0 | 0.42 | ug/kg | SW846 8260C |
| trans-1,2-Dichloroethene | | 0.63 J | 1.0 | 0.61 | ug/kg | SW846 8260C |
| Tetrachloroethene | | 13000 | 1100 | 350 | ug/kg | SW846 8260C |
| Trichloroethene | | 88.0 | 1.0 | 0.57 | ug/kg | SW846 8260C |
| Iron | | 12800 | 59 | | mg/kg | SW846 6010C |
| Manganese | | 203 | 1.8 | | mg/kg | SW846 6010C |

(a) Diluted due to high concentration of non-target compound.

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R1 | | |
| **Lab Sample ID:** | JC52095-1 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | C220280.D | 1 | 10/10/17 16:16 | RS | 09/30/17 11:00 | n/a | VC8135 |
| Run #2 | 3V38072.D | 1 | 10/12/17 11:51 | TDN | 09/30/17 11:00 | n/a | V3V1524 |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 4.9 g | | |
| Run #2 | 5.1 g | 5.0 ml | 100 ul |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 12 | 7.6 | ug/kg | |
| 71-43-2 | Benzene | ND | 0.59 | 0.13 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.9 | 0.52 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 2.4 | 0.29 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.9 | 0.37 | ug/kg | |
| 74-83-9 | Bromomethane | ND | 5.9 | 0.83 | ug/kg | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 12 | 6.2 | ug/kg | |
| 75-15-0 | Carbon disulfide | 0.81 | 2.4 | 0.72 | ug/kg | J |
| 56-23-5 | Carbon tetrachloride | ND | 2.4 | 0.77 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 2.4 | 0.34 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.9 | 1.1 | ug/kg | |
| 67-66-3 | Chloroform | ND | 2.4 | 0.38 | ug/kg | |
| 74-87-3 | Chloromethane | ND | 5.9 | 1.2 | ug/kg | |
| 110-82-7 | Cyclohexane | ND | 2.4 | 0.41 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.4 | 0.80 | ug/kg | |
| 124-48-1 | Dibromochloromethane | ND | 2.4 | 0.45 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.2 | 0.29 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.2 | 0.61 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.2 | 0.34 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.2 | 0.57 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.9 | 0.72 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.2 | 0.31 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.2 | 0.21 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.2 | 0.84 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethene | 30.9 | 1.2 | 0.48 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.2 | 0.69 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.4 | 0.47 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 2.4 | 0.46 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 2.4 | 0.28 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 1.2 | 0.34 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 5.9 | 0.80 | ug/kg | |
| 591-78-6 | 2-Hexanone [a] | ND | 5.9 | 3.3 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R1 | | |
| **Lab Sample ID:** | JC52095-1 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | 2.4 | 0.29 | ug/kg | |
| 79-20-9 | Methyl Acetate | ND | 5.9 | 3.0 | ug/kg | |
| 108-87-2 | Methylcyclohexane | ND | 2.4 | 0.65 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.2 | 0.51 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.9 | 2.1 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 5.9 | 3.0 | ug/kg | |
| 100-42-5 | Styrene | ND | 2.4 | 0.59 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 2.4 | 0.30 | ug/kg | |
| 127-18-4 | Tetrachloroethene | 12200 [b] | 130 | 41 | ug/kg | |
| 108-88-3 | Toluene | ND | 1.2 | 0.65 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.9 | 1.2 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.9 | 1.2 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 2.4 | 0.69 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 2.4 | 0.50 | ug/kg | |
| 79-01-6 | Trichloroethene | 55.3 | 1.2 | 0.65 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.9 | 0.57 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 2.4 | 0.91 | ug/kg | |
| | m,p-Xylene | ND | 1.2 | 0.65 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 1.2 | 0.30 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 1.2 | 0.30 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | 95% | 72-129% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93% | 93% | 73-132% |
| 2037-26-5 | Toluene-D8 | 98% | 102% | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 102% | 77-125% |

(a) Associated CCV outside of control limits high, sample was ND.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R1 | | |
| **Lab Sample ID:** | JC52095-1 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8015C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV140556.D | 1 | 10/10/17 00:04 | KC | 09/30/17 11:00 | n/a | GUV5751 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 5.1 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 13 | 6.5 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 100% | | 70-116% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R2 | | |
| **Lab Sample ID:** | JC52095-2 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | 3V38073.D | 1 | 10/12/17 12:17 | TDN | 09/30/17 11:00 | n/a | V3V1524 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 5.1 g | 5.0 ml | 100 ul |
| Run #2 | | | |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 650 | 420 | ug/kg | |
| 71-43-2 | Benzene | ND | 33 | 7.0 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 330 | 28 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 130 | 16 | ug/kg | |
| 75-25-2 | Bromoform | ND | 330 | 20 | ug/kg | |
| 74-83-9 | Bromomethane [b] | ND | 330 | 46 | ug/kg | |
| 78-93-3 | 2-Butanone (MEK) | ND | 650 | 340 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 130 | 40 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 130 | 42 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 130 | 19 | ug/kg | |
| 75-00-3 | Chloroethane [b] | ND | 330 | 59 | ug/kg | |
| 67-66-3 | Chloroform | ND | 130 | 21 | ug/kg | |
| 74-87-3 | Chloromethane | ND | 330 | 64 | ug/kg | |
| 110-82-7 | Cyclohexane | ND | 130 | 22 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 130 | 44 | ug/kg | |
| 124-48-1 | Dibromochloromethane | ND | 130 | 25 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 65 | 16 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 65 | 34 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 65 | 19 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 65 | 31 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane [b] | ND | 330 | 40 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 65 | 17 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 65 | 12 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethene | ND | 65 | 46 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethene | 206 | 65 | 26 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 65 | 38 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 130 | 26 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 130 | 25 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene [c] | ND | 130 | 15 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 65 | 19 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 330 | 44 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 330 | 180 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R2 | | |
| **Lab Sample ID:** | JC52095-2 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | 130 | 16 | ug/kg | |
| 79-20-9 | Methyl Acetate | ND | 330 | 160 | ug/kg | |
| 108-87-2 | Methylcyclohexane | ND | 130 | 35 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 65 | 28 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 330 | 120 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 330 | 160 | ug/kg | |
| 100-42-5 | Styrene | ND | 130 | 32 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 130 | 17 | ug/kg | |
| 127-18-4 | Tetrachloroethene | 5290 | 130 | 41 | ug/kg | |
| 108-88-3 | Toluene | ND | 65 | 36 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 330 | 65 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 330 | 65 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 130 | 38 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 130 | 27 | ug/kg | |
| 79-01-6 | Trichloroethene | 464 | 65 | 36 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane [b] | ND | 330 | 31 | ug/kg | |
| 75-01-4 | Vinyl chloride [b] | ND | 130 | 50 | ug/kg | |
| | m,p-Xylene | ND | 65 | 36 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 65 | 16 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 65 | 16 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 72-129% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | | 73-132% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | | 77-125% |

(a) Diluted due to high concentration of non-target compound.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R2 | | |
| **Lab Sample ID:** | JC52095-2 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8015C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV140557.D | 1 | 10/10/17 00:33 | KC | 09/30/17 11:00 | n/a | GUV5751 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 5.1 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 13 | 6.5 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 99% | | 70-116% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R3 | | |
| **Lab Sample ID:** | JC52095-3 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V170697.D | 1 | 10/11/17 20:02 | RS | 09/30/17 11:00 | n/a | VV7186 |
| Run #2 | 3V38074.D | 1 | 10/12/17 12:43 | TDN | 09/30/17 11:00 | n/a | V3V1524 |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 5.0 g | | |
| Run #2 | 4.8 g | 5.0 ml | 100 ul |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 178 | 12 | 7.4 | ug/kg | |
| 71-43-2 | Benzene | ND | 0.58 | 0.12 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.8 | 0.51 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 2.3 | 0.28 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.8 | 0.36 | ug/kg | |
| 74-83-9 | Bromomethane | ND | 5.8 | 0.82 | ug/kg | |
| 78-93-3 | 2-Butanone (MEK) | ND | 12 | 6.1 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 2.3 | 0.71 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 2.3 | 0.75 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 2.3 | 0.33 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.8 | 1.0 | ug/kg | |
| 67-66-3 | Chloroform | ND | 2.3 | 0.38 | ug/kg | |
| 74-87-3 | Chloromethane | ND | 5.8 | 1.1 | ug/kg | |
| 110-82-7 | Cyclohexane | ND | 2.3 | 0.40 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.3 | 0.78 | ug/kg | |
| 124-48-1 | Dibromochloromethane | ND | 2.3 | 0.44 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.2 | 0.28 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.2 | 0.60 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.2 | 0.33 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.2 | 0.56 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.8 | 0.71 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.2 | 0.30 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.2 | 0.21 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.2 | 0.82 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethene | 9.6 | 1.2 | 0.47 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.2 | 0.68 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.3 | 0.46 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 2.3 | 0.45 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 2.3 | 0.28 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 1.2 | 0.34 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 5.8 | 0.78 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 5.8 | 3.2 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R3 | | |
| **Lab Sample ID:** | JC52095-3 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | 2.3 | 0.29 | ug/kg | |
| 79-20-9 | Methyl Acetate | ND | 5.8 | 2.9 | ug/kg | |
| 108-87-2 | Methylcyclohexane | ND | 2.3 | 0.63 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.2 | 0.50 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.8 | 2.1 | ug/kg | |
| 75-09-2 | Methylene chloride | 8.2 | 5.8 | 2.9 | ug/kg | |
| 100-42-5 | Styrene | ND | 2.3 | 0.58 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 2.3 | 0.30 | ug/kg | |
| 127-18-4 | Tetrachloroethene | 6070 [a] | 140 | 44 | ug/kg | |
| 108-88-3 | Toluene | ND | 1.2 | 0.64 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.8 | 1.2 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.8 | 1.2 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 2.3 | 0.67 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 2.3 | 0.49 | ug/kg | |
| 79-01-6 | Trichloroethene | 20.4 | 1.2 | 0.64 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.8 | 0.56 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 2.3 | 0.89 | ug/kg | |
| | m,p-Xylene | ND | 1.2 | 0.64 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 1.2 | 0.29 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 1.2 | 0.29 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 93% | 72-129% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% | 92% | 73-132% |
| 2037-26-5 | Toluene-D8 | 98% | 104% | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | 98% | 77-125% |

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | R3 | | |
| **Lab Sample ID:** | JC52095-3 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8015C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV140558.D | 1 | 10/10/17 01:02 | KC | 09/30/17 11:00 | n/a | GUV5751 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 4.8 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 14 | 6.9 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 99% | | 70-116% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-135-46 | | |
| **Lab Sample ID:** | JC52095-4 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | C220283.D | 1 | 10/10/17 17:42 | RS | 09/30/17 11:00 | n/a | VC8135 |
| Run #2 | 3V38081.D | 1 | 10/12/17 15:45 | TDN | 09/30/17 11:00 | n/a | V3V1524 |
| Run #3 | 3V38075.D | 1 | 10/12/17 13:09 | TDN | 09/30/17 11:00 | n/a | V3V1524 |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 5.6 g | | |
| Run #2 | 6.1 g | 5.0 ml | 10.0 ul |
| Run #3 | 6.1 g | 5.0 ml | 100 ul |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.6 | ug/kg | |
| 71-43-2 | Benzene | ND | 0.52 | 0.11 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.2 | 0.45 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 2.1 | 0.25 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.2 | 0.32 | ug/kg | |
| 74-83-9 | Bromomethane | ND | 5.2 | 0.73 | ug/kg | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 10 | 5.4 | ug/kg | |
| 75-15-0 | Carbon disulfide | 1.0 | 2.1 | 0.63 | ug/kg | J |
| 56-23-5 | Carbon tetrachloride | ND | 2.1 | 0.67 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 2.1 | 0.30 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.2 | 0.94 | ug/kg | |
| 67-66-3 | Chloroform | ND | 2.1 | 0.33 | ug/kg | |
| 74-87-3 | Chloromethane | ND | 5.2 | 1.0 | ug/kg | |
| 110-82-7 | Cyclohexane | ND | 2.1 | 0.36 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.1 | 0.70 | ug/kg | |
| 124-48-1 | Dibromochloromethane | ND | 2.1 | 0.40 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.25 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.54 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.30 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.2 | 0.63 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.27 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.19 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.73 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethene | 48.3 | 1.0 | 0.42 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.63 | 1.0 | 0.61 | ug/kg | J |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.1 | 0.41 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 2.1 | 0.40 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 2.1 | 0.25 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.30 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-135-46 | | |
| **Lab Sample ID:** | JC52095-4 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8260C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**VOA TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 76-13-1 | Freon 113 | ND | 5.2 | 0.70 | ug/kg | |
| 591-78-6 | 2-Hexanone [a] | ND | 5.2 | 2.9 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 2.1 | 0.26 | ug/kg | |
| 79-20-9 | Methyl Acetate | ND | 5.2 | 2.6 | ug/kg | |
| 108-87-2 | Methylcyclohexane | ND | 2.1 | 0.57 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.44 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.2 | 1.9 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 5.2 | 2.6 | ug/kg | |
| 100-42-5 | Styrene | ND | 2.1 | 0.51 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 2.1 | 0.26 | ug/kg | |
| 127-18-4 | Tetrachloroethene | 13000 [b] | 1100 | 350 | ug/kg | |
| 108-88-3 | Toluene | ND | 1.0 | 0.57 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.2 | 1.0 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.2 | 1.0 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 2.1 | 0.60 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 2.1 | 0.44 | ug/kg | |
| 79-01-6 | Trichloroethene | 88.0 | 1.0 | 0.57 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.2 | 0.50 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 2.1 | 0.79 | ug/kg | |
| | m,p-Xylene | ND | 1.0 | 0.57 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.26 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.26 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | 92% | 93% | 72-129% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | 94% | 91% | 73-132% |
| 2037-26-5 | Toluene-D8 | 99% | 102% | 102% | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 102% | 99% | 77-125% |

(a) Associated CCV outside of control limits high, sample was ND.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-135-46 | | |
| **Lab Sample ID:** | JC52095-4 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| **Method:** | SW846 8015C SW846 5035 | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV140559.D | 1 | 10/10/17 01:38 | KC | 09/30/17 11:00 | n/a | GUV5751 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 6.1 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 11 | 5.6 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 99% | | 70-116% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-135-46 | | |
| **Lab Sample ID:** | JC52095-4 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| | | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 12800 | 59 | mg/kg | 1 | 10/03/17 | 10/04/17 | AB | SW846 6010C [2] | SW846 3050B [3] |
| Manganese | 203 | 1.8 | mg/kg | 1 | 10/03/17 | 10/04/17 | AB | SW846 6010C [1] | SW846 3050B [3] |

(1) Instrument QC Batch: MA42932
(2) Instrument QC Batch: MA42935
(3) Prep QC Batch: MP3256

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-135-46 | | |
| **Lab Sample ID:** | JC52095-4 | **Date Sampled:** | 09/29/17 |
| **Matrix:** | SO - Soil | **Date Received:** | 09/29/17 |
| | | **Percent Solids:** | 86.1 |
| **Project:** | American Linen Site, WA | | |

**General Chemistry**

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|
| Solids, Percent | 86.1 | | % | 1 | 10/06/17 22:45 | LV | SM2540 G-97 |
| Total Organic Carbon | < 1200 | 1200 | mg/kg | 1 | 10/04/17 21:22 | CD | SW846 9060A |

RL = Reporting Limit

## Misc. Forms

### Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

SLL
SME

# CHAIN OF CUSTODY



2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: JC52095

## Client / Reporting Information

Company Name: ISOTEC
Street Address: 11 Princell Road, Suite A
City: Lawrenceville State: NJ Zip: 08648
Project Contact: Yan Chin E-mail: ychin@insituoxidation.com
Phone #: 609-843-0485 Fax #: 609-275-9608
Sampler(s) Name(s): Yan Chin Phone #: 609-843-0485

## Project Information

Project Name: American Linen Site
Street:
City: State: WA
Project #: 901312
Client Purchase Order #: 5346
Project Manager:

Billing Information ( if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

## Requested Analysis ( see TEST CODE sheet)

## Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

| Accutest Sample # | Field ID / Point of Collection | MEOH/DI Vial # | Collection Date | Collection Time | Sampled by | Matrix | # of bottles | Number of preserved Bottles: HCl | NaOH | HNO3 | H2SO4 | NONE | DI Water | MEOH | ENCORE | VOCs | TPH-GRO | TOC | Fe | Mn | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | R1 | | 9/29/17 | 10am | YC | SO | | | | | | | | | 4 | X | X | | | | |
| 2 | R2 | | 9/29/17 | 10am | YC | SO | | | | | | | | | 4 | X | X | | | | C2473 |
| 3 | R3 | | 9/29/17 | 10am | YC | SO | | | | | | | | | 4 | X | X | | | | 14J2 |
| 4 | MW-135-46 | | 9/29/17 | 10am | YC | SO | 1 | | | | | 1 | | | 4 | X | X | X | X | X | 4025 |

## Turnaround Time ( Business days)

Approved By (Accutest PM): / Date:

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] other

Emergency & Rush T/A data available VIA Lablink

## Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" ( Level 2)
- [ ] FULLT1 ( Level 3+4 )
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [x] Other Results only

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

## Comments / Special Instructions

~~INITIAL ASESSMENT~~ 3B Dom
LABEL VERIFICATION GC
~~4~~ 5g Encores

**Sample Custody must be documented below each time samples change possession, including courier delivery.**

| Relinquished by Sampler: | Date Time: | Received By: | Relinquished By: | Date Time: | Received By: |
|---|---|---|---|---|---|
| 1 Yan Chin | 9/29/2017 10am | 1 | 2 | 9/29/17 | 2 |
| 3 | | 3 | 4 | | 4 |
| 5 | | 5 | Custody Seal # | Intact / Not intact | Preserved where applicable: On Ice: X Cooler Temp: 2.1 IP. |

# SGS Accutest Sample Receipt Summary

**Job Number:** JC52095 **Client:** ISOTEC **Project:** American Linen Site

**Date / Time Received:** 9/29/2017 3:15:00 PM **Delivery Method:** Accutest Courier **Airbill #'s:**

**Cooler Temps (Raw Measured) °C:** Cooler 1: (2.1);

**Cooler Temps (Corrected) °C:** Cooler 1: (0.5);

| Cooler Security | Y | or | N | | Y | or | N |
|---|---|---|---|---|---|---|---|
| 1. Custody Seals Present: | ☑ | | ☐ | 3. COC Present: | ☑ | | ☐ |
| 2. Custody Seals Intact: | ☑ | | ☐ | 4. Smpl Dates/Time OK | ☑ | | ☐ |

| Cooler Temperature | Y | or | N |
|---|---|---|---|
| 1. Temp criteria achieved: | ☑ | | ☐ |
| 2. Cooler temp verification: | IR Gun | | |
| 3. Cooler media: | Ice (Bag) | | |
| 4. No. Coolers: | 1 | | |

| Quality Control Preservation | Y | or | N | N/A |
|---|---|---|---|---|
| 1. Trip Blank present / cooler: | ☐ | | ☑ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | | ☑ | ☐ |
| 3. Samples preserved properly: | ☐ | | ☐ | |
| 4. VOCs headspace free: | ☐ | | ☐ | ☐ |

| Sample Integrity - Documentation | Y | or | N |
|---|---|---|---|
| 1. Sample labels present on bottles: | ☑ | | ☐ |
| 2. Container labeling complete: | ☑ | | ☐ |
| 3. Sample container label / COC agree: | ☑ | | ☐ |

| Sample Integrity - Condition | Y | or | N |
|---|---|---|---|
| 1. Sample recvd within HT: | ☐ | | ☐ |
| 2. All containers accounted for: | ☑ | | ☐ |
| 3. Condition of sample: | Intact | | |

| Sample Integrity - Instructions | Y | or | N | N/A |
|---|---|---|---|---|
| 1. Analysis requested is clear: | ☑ | | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | | ☑ | |
| 3. Sufficient volume recvd for analysis: | ☑ | | ☐ | |
| 4. Compositing instructions clear: | ☐ | | ☐ | ☐ |
| 5. Filtering instructions clear: | ☐ | | ☐ | ☐ |

Comments -1 thru -3 Did not receive % Solids volume. Only rec'd 4x 5gr encores.

SM089-02
Rev. Date 12/1/16

Responded to by: rocus peters Response Date: 10/3

Take solids from the TOC sample 4.

All samples 1,2,3 are the same source please apply solids from sample 4 to all samples.

per Yan



**JC52095: Chain of Custody**
**Page 3 of 3**

# APPENDIX J-1

# 2017 ANALYTICAL DATA REPORTS AND DATA VALIDATION REVIEW MEMOS

# ANALYTICAL REPORT

March 30, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L897427 |
| Samples Received: | 03/22/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## SCS-2-032017 L897427-01 GW

Collected by: Karsten Springstead
Collected date/time: 03/20/17 13:45
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963440 | 1 | 03/23/17 15:57 | 03/23/17 15:57 | DWR |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 13:29 | 03/28/17 13:29 | JHH |

## MW-8-032017 L897427-02 GW

Collected by: Karsten Springstead
Collected date/time: 03/20/17 14:20
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 13:49 | 03/28/17 13:49 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 14:54 | 03/29/17 14:54 | BMB |

## MW-9-032017 L897427-03 GW

Collected by: Karsten Springstead
Collected date/time: 03/20/17 15:20
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963440 | 1 | 03/23/17 16:20 | 03/23/17 16:20 | DWR |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 14:09 | 03/28/17 14:09 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 15:14 | 03/29/17 15:14 | BMB |

## R-MW-2-032117 L897427-04 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 09:05
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 14:29 | 03/28/17 14:29 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 15:35 | 03/29/17 15:35 | BMB |

## R-MW-3-032117 L897427-05 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 09:50
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963440 | 1 | 03/23/17 16:42 | 03/23/17 16:42 | DWR |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 14:49 | 03/28/17 14:49 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 15:55 | 03/29/17 15:55 | BMB |

## R-MW-6-032117 L897427-06 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 11:30
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963291 | 1 | 03/23/17 10:36 | 03/23/17 10:36 | AMC |
| Wet Chemistry by Method 9056A | WG963216 | 1 | 03/22/17 22:20 | 03/22/17 22:20 | SAM |
| Wet Chemistry by Method 9056A | WG964054 | 5 | 03/27/17 16:29 | 03/27/17 16:29 | KCF |
| Wet Chemistry by Method 9060A | WG963248 | 1 | 03/25/17 00:57 | 03/25/17 00:57 | SJM |
| Metals (ICPMS) by Method 6020 | WG963750 | 1 | 03/24/17 09:22 | 03/24/17 12:21 | LAT |
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963440 | 1 | 03/23/17 17:04 | 03/23/17 17:04 | DWR |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963229 | 1 | 03/22/17 21:24 | 03/22/17 21:24 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963506 | 20 | 03/23/17 11:23 | 03/23/17 11:23 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 15:09 | 03/28/17 15:09 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 16:15 | 03/29/17 16:15 | BMB |

## MW116-032117 L897427-07 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 12:36
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963291 | 1 | 03/23/17 10:51 | 03/23/17 10:51 | AMC |
| Wet Chemistry by Method 9056A | WG963216 | 1 | 03/22/17 22:51 | 03/22/17 22:51 | SAM |
| Wet Chemistry by Method 9060A | WG963248 | 1 | 03/25/17 01:10 | 03/25/17 01:10 | SJM |
| Metals (ICPMS) by Method 6020 | WG963750 | 1 | 03/24/17 09:22 | 03/24/17 13:16 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963229 | 1 | 03/22/17 21:58 | 03/22/17 21:58 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963506 | 40 | 03/23/17 11:40 | 03/23/17 11:40 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 15:29 | 03/28/17 15:29 | JHH |

## J5-032117 L897427-08 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 14:00
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963291 | 1 | 03/23/17 09:26 | 03/23/17 09:26 | AMC |
| Wet Chemistry by Method 9056A | WG963216 | 1 | 03/22/17 23:06 | 03/22/17 23:06 | SAM |
| Wet Chemistry by Method 9060A | WG963248 | 1 | 03/25/17 01:37 | 03/25/17 01:37 | SJM |
| Metals (ICPMS) by Method 6020 | WG963750 | 1 | 03/24/17 09:22 | 03/24/17 13:20 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963229 | 1 | 03/22/17 22:31 | 03/22/17 22:31 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963578 | 20 | 03/23/17 13:20 | 03/23/17 13:20 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 15:49 | 03/28/17 15:49 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 10 | 03/29/17 16:35 | 03/29/17 16:35 | BMB |

## K8-032117 L897427-09 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 15:00
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963291 | 1 | 03/23/17 08:52 | 03/23/17 08:52 | AMC |
| Wet Chemistry by Method 9056A | WG963216 | 1 | 03/22/17 23:22 | 03/22/17 23:22 | SAM |
| Wet Chemistry by Method 9060A | WG963248 | 1 | 03/25/17 01:51 | 03/25/17 01:51 | SJM |
| Metals (ICPMS) by Method 6020 | WG963750 | 1 | 03/24/17 09:22 | 03/24/17 13:23 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963229 | 1 | 03/22/17 22:48 | 03/22/17 22:48 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 16:09 | 03/28/17 16:09 | JHH |

## TRIP BLANK L897427-10 GW

Collected by: Karsten Springstead
Collected date/time: 03/21/17 00:00
Received date/time: 03/22/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963440 | 1 | 03/23/17 14:06 | 03/23/17 14:06 | DWR |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 12:49 | 03/28/17 12:49 | JHH |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 1660 | | 31.6 | 100 | 1 | 03/23/2017 15:57 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *94.2* | | | *77.0-122* | | *03/23/2017 15:57* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 78.8 | | 1.05 | 25.0 | 1 | 03/28/2017 13:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Benzene | 51.8 | | 0.0896 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Butylbenzene | 2.49 | | 0.143 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| sec-Butylbenzene | 2.02 | | 0.134 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Di-isopropyl ether | 1.41 | | 0.0924 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Ethylbenzene | 155 | J4 | 0.158 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Hexane | 3.96 | | 0.305 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Isopropylbenzene | 19.0 | | 0.126 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| p-Isopropyltoluene | 0.379 | J | 0.138 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Naphthalene | 61.8 | J0 | 0.174 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Propylbenzene | 43.9 | | 0.162 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Toluene | 9.54 | | 0.412 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,4-Trimethylbenzene | 60.3 | | 0.123 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trimethylbenzene | 59.3 | | 0.0739 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3,5-Trimethylbenzene | 5.36 | | 0.124 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Xylenes, Total | 181 | J4 | 0.316 | 1.50 | 1 | 03/28/2017 13:29 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 13:29* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/28/2017 13:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *98.7* | | | *80.0-120* | | *03/28/2017 13:29* | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.68 | B J | 1.05 | 25.0 | 1 | 03/28/2017 13:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Benzene | 0.145 | J | 0.0896 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Ethylbenzene | 0.175 | J J4 | 0.158 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Naphthalene | 0.195 | B J | 0.174 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/29/2017 14:54 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 13:49* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/29/2017 14:54* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 13:49* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 14:54* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *03/28/2017 13:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/29/2017 14:54* | WG964116 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 52.8 | J | 31.6 | 100 | 1 | 03/23/2017 16:20 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.3* | | | *77.0-122* | | *03/23/2017 16:20* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 4.08 | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| cis-1,2-Dichloroethene | 0.140 | J | 0.0933 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| n-Hexane | 0.311 | J | 0.305 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:14 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Vinyl chloride | 0.324 | J | 0.118 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:09 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 14:09* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/29/2017 15:14* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 14:09* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 15:14* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *96.5* | | | *80.0-120* | | *03/28/2017 14:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 15:14* | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 3.29 | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Benzene | 0.272 | J | 0.0896 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.341 | J | 0.0933 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:35 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Vinyl chloride | 0.522 | | 0.118 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:29 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 14:29* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 15:35* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 15:35* | WG964116 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *03/28/2017 14:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 14:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/29/2017 15:35* | WG964116 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/23/2017 16:42 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.5* | | | *77.0-122* | | *03/23/2017 16:42* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 14.3 | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| cis-1,2-Dichloroethene | 0.575 | | 0.0933 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:55 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Tetrachloroethene | 1.38 | | 0.199 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Trichloroethene | 0.714 | | 0.153 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 15:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 14:49* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 14:49* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 15:55* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 14:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/29/2017 15:55* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 586000 | | 2710 | 20000 | 1 | 03/23/2017 10:36 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 5720 | | 51.9 | 1000 | 1 | 03/22/2017 22:20 | WG963216 |
| Nitrate | 191 | | 22.7 | 100 | 1 | 03/22/2017 22:20 | WG963216 |
| Sulfate | 119000 | | 387 | 25000 | 5 | 03/27/2017 16:29 | WG964054 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 6280 | | 102 | 1000 | 1 | 03/25/2017 00:57 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5020 | | 15.0 | 100 | 1 | 03/24/2017 12:21 | WG963750 |
| Manganese | 6240 | V | 0.250 | 5.00 | 1 | 03/24/2017 12:21 | WG963750 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 42.8 | J | 31.6 | 100 | 1 | 03/23/2017 17:04 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.7* | | | *77.0-122* | | *03/23/2017 17:04* | WG963440 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 9410 | | 5.74 | 13.6 | 20 | 03/23/2017 11:23 | WG963506 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 21:24 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 21:24 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.14 | B J | 1.05 | 25.0 | 1 | 03/28/2017 15:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloroethane | 0.977 | | 0.141 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| cis-1,2-Dichloroethene | 20.0 | | 0.0933 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,2-Dichloroethene | 0.242 | J | 0.152 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 16:15 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Tetrachloroethene | 1.08 | | 0.199 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Trichloroethene | 3.17 | | 0.153 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Vinyl chloride | 8.65 | | 0.118 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:09 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 15:09* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 16:15* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 15:09* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 16:15* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.6* | | | *80.0-120* | | *03/28/2017 15:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 16:15* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 432000 | | 2710 | 20000 | 1 | 03/23/2017 10:51 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22000 | | 51.9 | 1000 | 1 | 03/22/2017 22:51 | WG963216 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/22/2017 22:51 | WG963216 |
| Sulfate | 25700 | | 77.4 | 5000 | 1 | 03/22/2017 22:51 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7340 | | 102 | 1000 | 1 | 03/25/2017 01:10 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 6010 | | 15.0 | 100 | 1 | 03/24/2017 13:16 | WG963750 |
| Manganese | 869 | | 0.250 | 5.00 | 1 | 03/24/2017 13:16 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 8590 | | 11.5 | 27.1 | 40 | 03/23/2017 11:40 | WG963506 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 21:58 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 21:58 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.32 | B J | 1.05 | 25.0 | 1 | 03/28/2017 15:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:29 | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/28/2017 15:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 15:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.2* | | | *80.0-120* | | *03/28/2017 15:29* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 53400 | | 2710 | 20000 | 1 | 03/23/2017 09:26 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 28000 | | 51.9 | 1000 | 1 | 03/22/2017 23:06 | WG963216 |
| Nitrate | 58.4 | J P1 | 22.7 | 100 | 1 | 03/22/2017 23:06 | WG963216 |
| Sulfate | 16300 | | 77.4 | 5000 | 1 | 03/22/2017 23:06 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 4100 | | 102 | 1000 | 1 | 03/25/2017 01:37 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 1090 | | 15.0 | 100 | 1 | 03/24/2017 13:20 | WG963750 |
| Manganese | 474 | | 0.250 | 5.00 | 1 | 03/24/2017 13:20 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 2370 | | 5.74 | 13.6 | 20 | 03/23/2017 13:20 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 22:31 | WG963229 |
| Ethene | 29.4 | | 0.422 | 1.27 | 1 | 03/22/2017 22:31 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.24 | B J | 1.05 | 25.0 | 1 | 03/28/2017 15:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Benzene | 0.580 | | 0.0896 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloroethene | 0.453 | J | 0.188 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| cis-1,2-Dichloroethene | 253 | | 0.933 | 5.00 | 10 | 03/29/2017 16:35 | WG964116 |
| trans-1,2-Dichloroethene | 1.73 | | 0.152 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Tetrachloroethene | 285 | | 1.99 | 5.00 | 10 | 03/29/2017 16:35 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Trichloroethene | 78.5 | | 0.153 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Vinyl chloride | 29.6 | | 0.118 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/28/2017 15:49* | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 16:35* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/29/2017 16:35* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 15:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.0* | | | *80.0-120* | | *03/28/2017 15:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 16:35* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 70300 | | 2710 | 20000 | 1 | 03/23/2017 08:52 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 10100 | | 51.9 | 1000 | 1 | 03/22/2017 23:22 | WG963216 |
| Nitrate | 103 | | 22.7 | 100 | 1 | 03/22/2017 23:22 | WG963216 |
| Sulfate | 27200 | | 77.4 | 5000 | 1 | 03/22/2017 23:22 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 5930 | | 102 | 1000 | 1 | 03/25/2017 01:51 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 62.2 | J | 15.0 | 100 | 1 | 03/24/2017 13:23 | WG963750 |
| Manganese | 242 | | 0.250 | 5.00 | 1 | 03/24/2017 13:23 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 41.4 | | 0.287 | 0.678 | 1 | 03/22/2017 22:48 | WG963229 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 22:48 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 22:48 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.26 | B J | 1.05 | 25.0 | 1 | 03/28/2017 16:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Benzene | 0.239 | J | 0.0896 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloroethene | 1.47 | | 0.188 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| cis-1,2-Dichloroethene | 123 | | 0.0933 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,2-Dichloroethene | 0.680 | | 0.152 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Tetrachloroethene | 82.5 | | 0.199 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Trichloroethene | 22.0 | | 0.153 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Vinyl chloride | 0.461 | J | 0.118 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 16:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 16:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/28/2017 16:09* | WG964116 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/23/2017 14:06 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.4* | | | *77.0-122* | | *03/23/2017 14:06* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.70 | B J | 1.05 | 25.0 | 1 | 03/28/2017 12:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 12:49 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 12:49* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 12:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 12:49* | WG964116 |

## Method Blank (MB)

(MB) R3205313-2 03/23/17 07:45

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 2760 | J | 2710 | 20000 |

## L897450-09 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-09 03/23/17 10:12 • (DUP) R3205313-9 03/23/17 10:19

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 510000 | 510000 | 1 | 0.000 | | 20 |

## L897427-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-06 03/23/17 10:36 • (DUP) R3205313-12 03/23/17 10:45

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 586000 | 597000 | 1 | 2.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205313-4 03/23/17 09:00 • (LCSD) R3205313-11 03/23/17 10:26

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 97900 | 105000 | 98.0 | 105 | 85.0-115 | | | 7.00 | 20 |

## Method Blank (MB)

(MB) R3205611-1 03/22/17 19:15

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L897427-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-06 03/22/17 22:20 • (DUP) R3205611-4 03/22/17 22:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 5720 | 5770 | 1 | 1 | | 15 |
| Nitrate | 191 | 195 | 1 | 2 | | 15 |

## L897427-08 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-08 03/22/17 23:06 • (DUP) R3205611-6 03/23/17 10:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 28000 | 28100 | 1 | 0 | | 15 |
| Nitrate | 58.4 | 0.000 | 1 | 200 | P1 | 15 |
| Sulfate | 16300 | 17300 | 1 | 6 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205611-2 03/22/17 19:30 • (LCSD) R3205611-3 03/22/17 19:46

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Chloride | 40000 | 39100 | 39000 | 98 | 97 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8080 | 8070 | 101 | 101 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 38500 | 38300 | 96 | 96 | 80-120 | | | 0 | 15 |

## L897427-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L897427-09 03/22/17 23:22 • (MS) R3205611-5 03/22/17 23:37

| Analyte | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | | % | |
| Chloride | 50000 | 10100 | 60500 | 101 | 1 | 80-120 | |
| Nitrate | 5000 | 103 | 5080 | 100 | 1 | 80-120 | |
| Sulfate | 50000 | 27200 | 76800 | 99 | 1 | 80-120 | |

## L897590-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897590-03 03/23/17 12:23 • (MS) R3205611-7 03/23/17 15:59 • (MSD) R3205611-8 03/23/17 16:14

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate | 5000 | ND | 4740 | 4850 | 95 | 97 | 1 | 80-120 | | | 2 | 15 |

## Method Blank (MB)

(MB) R3206307-1 03/27/17 15:12

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Sulfate | U | | 77.4 | 5000 |

## L897835-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897835-02 03/27/17 16:40 • (DUP) R3206307-4 03/27/17 16:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Sulfate | 76400 | 77000 | 1 | 1 | | 15 |

## L897900-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897900-03 03/27/17 18:31 • (DUP) R3206307-6 03/27/17 18:41

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Sulfate | ND | 2500 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206307-2 03/27/17 15:22 • (LCSD) R3206307-3 03/27/17 15:32

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Sulfate | 40000 | 40100 | 40400 | 100 | 101 | 80-120 | | | 1 | 15 |

## L897835-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897835-03 03/27/17 17:00 • (MS) R3206307-5 03/27/17 17:30

| Analyte | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | | % | |
| Sulfate | 50000 | 84800 | 133000 | 97 | 1 | 80-120 | E |

## L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/27/17 20:23 • (MS) R3206307-7 03/27/17 20:33 • (MSD) R3206307-8 03/27/17 20:43

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Sulfate | 50000 | 12700 | 67800 | 67600 | 110 | 110 | 1 | 80-120 | | | 0 | 15 |

## Method Blank (MB)

(MB) R3206005-1 03/24/17 16:14

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L897328-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897328-01 03/24/17 18:05 • (DUP) R3206005-3 03/24/17 18:23

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 271 | 189 | 1 | 36 | J P1 | 20 |

## L897427-07 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-07 03/25/17 01:10 • (DUP) R3206005-7 03/25/17 01:24

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 7340 | 7450 | 1 | 1 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206005-2 03/24/17 17:30 • (LCSD) R3206005-4 03/24/17 19:52

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 75000 | 74000 | 74700 | 99 | 100 | 85-115 | | | 1 | 20 |

## L897389-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897389-02 03/24/17 19:33 • (MS) R3206005-5 03/24/17 20:52 • (MSD) R3206005-6 03/24/17 21:10

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 50000 | 3700 | 51400 | 52100 | 95 | 97 | 1 | 80-120 | | | 1 | 20 |

## Method Blank (MB)

(MB) R3205761-1 03/24/17 12:11

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | 0.286 | J | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205761-2 03/24/17 12:14 • (LCSD) R3205761-3 03/24/17 12:18

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 4970 | 4840 | 99 | 97 | 80-120 | | | 3 | 20 |
| Manganese | 50.0 | 47.7 | 47.8 | 95 | 96 | 80-120 | | | 0 | 20 |

## L897427-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897427-06 03/24/17 12:21 • (MS) R3205761-5 03/24/17 12:28 • (MSD) R3205761-6 03/24/17 12:32

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 5020 | 9780 | 9770 | 95 | 95 | 1 | 75-125 | | | 0 | 20 |
| Manganese | 50.0 | 6240 | 6260 | 6230 | 47 | 0 | 1 | 75-125 | V | V | 1 | 20 |

## Method Blank (MB)

(MB) R3205642-3 03/23/17 13:33

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *94.7* | | | *77.0-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205642-1 03/23/17 12:26 • (LCSD) R3205642-2 03/23/17 12:49

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | 5450 | 5570 | 99.1 | 101 | 72.0-134 | | | 2.18 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | *106* | *106* | *77.0-122* | | | | |

## Method Blank (MB)

(MB) R3205283-1 03/22/17 18:55

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L897450-09 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-09 03/22/17 23:54 • (DUP) R3205283-2 03/23/17 00:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 34.6 | 34.8 | 1 | 0.690 | | 20 |
| Ethane | U | 0.000 | 1 | 0.000 | | 20 |
| Ethene | U | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205283-3 03/23/17 00:44 • (LCSD) R3205283-4 03/23/17 01:01

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 62.8 | 63.8 | 92.7 | 94.2 | 70.0-130 | | | 1.60 | 20 |
| Ethane | 129 | 112 | 115 | 86.5 | 89.2 | 70.0-130 | | | 3.08 | 20 |
| Ethene | 127 | 110 | 113 | 86.8 | 88.7 | 70.0-130 | | | 2.17 | 20 |

## Method Blank (MB)

(MB) R3205374-1 03/23/17 10:17

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L897427-07 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-07 03/23/17 11:40 • (DUP) R3205374-2 03/23/17 11:57

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 8590 | 8760 | 40 | 1.90 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205374-3 03/23/17 12:13 • (LCSD) R3205374-4 03/23/17 12:30

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 64.7 | 63.6 | 95.4 | 93.8 | 70.0-130 | | | 1.75 | 20 |

## Method Blank (MB)

(MB) R3205647-1 03/23/17 12:47

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L897590-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-02 03/23/17 13:36 • (DUP) R3205647-2 03/23/17 16:48

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |

## L897590-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-05 03/23/17 17:04 • (DUP) R3205647-3 03/23/17 18:44

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 2090 | 238 | 1 | 159 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205647-4 03/23/17 19:51 • (LCSD) R3205647-5 03/24/17 09:52

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 63.7 | 66.4 | 94.0 | 97.9 | 70.0-130 | | | 4.03 | 20 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | 2.11 | J | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.204 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | 0.255 | J | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 153 | 165 | 123 | 132 | 10.0-160 | | | 7.11 | 23 |
| Acrylonitrile | 125 | 123 | 131 | 98.5 | 105 | 60.0-142 | | | 6.50 | 20 |
| Benzene | 25.0 | 20.2 | 21.6 | 81.0 | 86.4 | 69.0-123 | | | 6.50 | 20 |
| Bromobenzene | 25.0 | 20.3 | 22.5 | 81.4 | 90.2 | 79.0-120 | | | 10.3 | 20 |
| Bromodichloromethane | 25.0 | 22.6 | 24.1 | 90.6 | 96.2 | 76.0-120 | | | 6.03 | 20 |
| Bromochloromethane | 25.0 | 20.2 | 21.3 | 80.7 | 85.3 | 76.0-122 | | | 5.62 | 20 |
| Bromoform | 25.0 | 19.9 | 21.6 | 79.5 | 86.4 | 67.0-132 | | | 8.22 | 20 |
| Bromomethane | 25.0 | 24.0 | 24.1 | 95.8 | 96.5 | 18.0-160 | | | 0.760 | 20 |
| n-Butylbenzene | 25.0 | 22.0 | 23.5 | 87.9 | 94.0 | 72.0-126 | | | 6.66 | 20 |
| sec-Butylbenzene | 25.0 | 20.0 | 21.7 | 80.0 | 86.7 | 74.0-121 | | | 8.07 | 20 |
| tert-Butylbenzene | 25.0 | 20.0 | 21.9 | 80.1 | 87.7 | 75.0-122 | | | 9.10 | 20 |
| Carbon disulfide | 25.0 | 17.9 | 18.8 | 71.8 | 75.1 | 55.0-127 | | | 4.53 | 20 |
| Carbon tetrachloride | 25.0 | 21.0 | 22.6 | 84.0 | 90.4 | 63.0-122 | | | 7.38 | 20 |
| Chlorobenzene | 25.0 | 19.7 | 21.5 | 78.7 | 86.1 | 79.0-121 | J4 | | 9.01 | 20 |
| Chlorodibromomethane | 25.0 | 21.1 | 23.0 | 84.3 | 92.2 | 75.0-125 | | | 8.84 | 20 |
| Chloroethane | 25.0 | 24.6 | 25.8 | 98.5 | 103 | 47.0-152 | | | 4.82 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 137 | 147 | 109 | 118 | 10.0-160 | | | 7.24 | 22 |
| Chloroform | 25.0 | 21.7 | 23.0 | 86.9 | 92.2 | 72.0-121 | | | 5.95 | 20 |
| Chloromethane | 25.0 | 24.6 | 24.4 | 98.2 | 97.7 | 48.0-139 | | | 0.560 | 20 |
| 2-Chlorotoluene | 25.0 | 20.2 | 22.4 | 80.9 | 89.5 | 74.0-122 | | | 10.1 | 20 |
| 4-Chlorotoluene | 25.0 | 20.5 | 22.6 | 81.8 | 90.4 | 79.0-120 | | | 9.96 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 18.2 | 19.3 | 73.0 | 77.4 | 64.0-127 | | | 5.86 | 20 |
| 1,2-Dibromoethane | 25.0 | 20.1 | 21.8 | 80.5 | 87.2 | 77.0-123 | | | 7.94 | 20 |
| Dibromomethane | 25.0 | 22.3 | 23.4 | 89.3 | 93.6 | 78.0-120 | | | 4.76 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 20.6 | 22.1 | 82.3 | 88.2 | 80.0-120 | | | 6.90 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 19.3 | 20.9 | 77.1 | 83.5 | 72.0-123 | | | 7.88 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 20.1 | 22.0 | 80.3 | 88.1 | 77.0-120 | | | 9.24 | 20 |
| Dichlorodifluoromethane | 25.0 | 27.2 | 24.6 | 109 | 98.2 | 49.0-155 | | | 10.2 | 20 |
| 1,1-Dichloroethane | 25.0 | 22.4 | 23.7 | 89.4 | 94.8 | 70.0-126 | | | 5.84 | 20 |
| 1,2-Dichloroethane | 25.0 | 23.9 | 25.1 | 95.7 | 100 | 67.0-126 | | | 4.63 | 20 |
| 1,1-Dichloroethene | 25.0 | 21.9 | 22.7 | 87.6 | 90.8 | 64.0-129 | | | 3.64 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 21.0 | 22.4 | 83.8 | 89.6 | 73.0-120 | | | 6.65 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 19.7 | 20.6 | 79.0 | 82.3 | 71.0-121 | | | 4.15 | 20 |
| 1,2-Dichloropropane | 25.0 | 22.9 | 25.3 | 91.8 | 101 | 75.0-125 | | | 9.66 | 20 |
| 1,1-Dichloropropene | 25.0 | 21.0 | 22.7 | 84.1 | 90.6 | 71.0-129 | | | 7.53 | 20 |
| 1,3-Dichloropropane | 25.0 | 21.0 | 22.4 | 84.0 | 89.8 | 80.0-121 | | | 6.70 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 25.6 | 97.1 | 102 | 79.0-123 | | | 5.13 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 23.5 | 25.4 | 94.1 | 102 | 74.0-127 | | | 7.77 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.7 | 21.7 | 82.6 | 86.7 | 55.0-134 | | | 4.88 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.5 | 24.4 | 89.9 | 97.7 | 60.0-125 | | | 8.39 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 24.5 | 26.8 | 97.9 | 107 | 59.0-133 | | | 9.12 | 20 |
| Ethylbenzene | 25.0 | 19.1 | 20.8 | 76.3 | 83.4 | 77.0-120 | J4 | | 8.88 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 19.7 | 21.5 | 78.7 | 86.0 | 64.0-131 | | | 8.79 | 20 |
| 2-Hexanone | 125 | 129 | 138 | 103 | 110 | 58.0-147 | | | 6.93 | 20 |
| n-Hexane | 25.0 | 18.1 | 19.2 | 72.5 | 76.7 | 56.0-124 | | | 5.68 | 20 |
| Iodomethane | 125 | 124 | 130 | 99.6 | 104 | 57.0-140 | | | 4.14 | 20 |
| Isopropylbenzene | 25.0 | 19.9 | 22.1 | 79.8 | 88.2 | 75.0-120 | | | 10.1 | 20 |
| p-Isopropyltoluene | 25.0 | 20.3 | 22.0 | 81.2 | 88.0 | 74.0-126 | | | 8.10 | 20 |
| 2-Butanone (MEK) | 125 | 147 | 155 | 117 | 124 | 37.0-158 | | | 5.35 | 20 |
| Methylene Chloride | 25.0 | 19.4 | 20.7 | 77.4 | 82.9 | 66.0-121 | | | 6.86 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 150 | 159 | 120 | 127 | 59.0-143 | | | 5.43 | 20 |
| Methyl tert-butyl ether | 25.0 | 23.6 | 25.4 | 94.5 | 101 | 64.0-123 | | | 7.18 | 20 |
| Naphthalene | 25.0 | 18.2 | 19.8 | 72.8 | 79.3 | 62.0-128 | | | 8.60 | 20 |
| n-Propylbenzene | 25.0 | 20.3 | 22.4 | 81.2 | 89.4 | 79.0-120 | | | 9.70 | 20 |
| Styrene | 25.0 | 21.2 | 23.1 | 84.7 | 92.6 | 78.0-124 | | | 8.85 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 20.8 | 22.5 | 83.0 | 90.0 | 75.0-122 | | | 8.03 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.1 | 22.0 | 80.6 | 87.9 | 71.0-122 | | | 8.68 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 23.5 | 24.9 | 94.2 | 99.7 | 61.0-136 | | | 5.67 | 20 |
| Tetrachloroethene | 25.0 | 19.0 | 20.7 | 76.1 | 82.8 | 70.0-127 | | | 8.45 | 20 |
| Toluene | 25.0 | 20.2 | 21.4 | 80.8 | 85.7 | 77.0-120 | | | 5.88 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 17.2 | 19.0 | 68.7 | 75.9 | 61.0-133 | | | 9.91 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 18.9 | 19.9 | 75.7 | 79.7 | 69.0-129 | | | 5.10 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 22.1 | 23.7 | 88.2 | 94.9 | 68.0-122 | | | 7.33 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 19.8 | 21.4 | 79.4 | 85.8 | 78.0-120 | | | 7.72 | 20 |
| Trichloroethene | 25.0 | 20.6 | 21.5 | 82.6 | 86.0 | 78.0-120 | | | 4.03 | 20 |
| Trichlorofluoromethane | 25.0 | 26.2 | 26.7 | 105 | 107 | 56.0-137 | | | 1.58 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 20.6 | 22.2 | 82.3 | 88.9 | 72.0-124 | | | 7.68 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 20.3 | 22.1 | 81.3 | 88.4 | 75.0-120 | | | 8.40 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 21.1 | 22.7 | 84.3 | 91.0 | 75.0-120 | | | 7.58 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 20.1 | 21.9 | 80.4 | 87.5 | 75.0-120 | | | 8.49 | 20 |
| Vinyl acetate | 125 | 139 | 149 | 111 | 119 | 46.0-160 | | | 6.86 | 20 |
| Vinyl chloride | 25.0 | 27.2 | 26.7 | 109 | 107 | 64.0-133 | | | 2.02 | 20 |
| Xylenes, Total | 75.0 | 56.9 | 62.9 | 75.9 | 83.9 | 77.0-120 | J4 | | 10.0 | 20 |
| *(S) Toluene-d8* | | | | *110* | *110* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *104* | *104* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *97.6* | *99.9* | *80.0-120* | | | | |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 3.09 | 86.2 | 89.9 | 66.5 | 69.5 | 1 | 10.0-139 | | | 4.23 | 25 |
| Acrylonitrile | 125 | U | 153 | 153 | 122 | 122 | 1 | 46.0-159 | | | 0.0900 | 23 |
| Benzene | 25.0 | U | 24.1 | 23.1 | 96.4 | 92.3 | 1 | 34.0-147 | | | 4.35 | 20 |
| Bromobenzene | 25.0 | U | 25.0 | 23.7 | 100 | 94.6 | 1 | 51.0-137 | | | 5.55 | 20 |
| Bromodichloromethane | 25.0 | U | 27.2 | 26.1 | 109 | 105 | 1 | 52.0-135 | | | 3.82 | 20 |
| Bromochloromethane | 25.0 | U | 25.7 | 23.2 | 103 | 93.0 | 1 | 53.0-138 | | | 10.0 | 20 |
| Bromoform | 25.0 | U | 26.0 | 25.6 | 104 | 102 | 1 | 50.0-146 | | | 1.53 | 20 |
| Bromomethane | 25.0 | U | 26.4 | 24.1 | 106 | 96.3 | 1 | 10.0-160 | | | 9.34 | 23 |
| n-Butylbenzene | 25.0 | U | 25.5 | 25.5 | 102 | 102 | 1 | 50.0-144 | | | 0.0200 | 20 |
| sec-Butylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.4 | 1 | 48.0-143 | | | 3.92 | 20 |
| tert-Butylbenzene | 25.0 | U | 24.3 | 23.4 | 97.1 | 93.7 | 1 | 50.0-142 | | | 3.54 | 20 |
| Carbon disulfide | 25.0 | U | 20.2 | 18.6 | 80.7 | 74.5 | 1 | 10.0-147 | | | 8.03 | 20 |
| Carbon tetrachloride | 25.0 | U | 25.5 | 24.5 | 102 | 97.9 | 1 | 41.0-138 | | | 4.30 | 20 |
| Chlorobenzene | 25.0 | U | 23.9 | 22.5 | 95.4 | 89.9 | 1 | 52.0-141 | | | 5.93 | 20 |
| Chlorodibromomethane | 25.0 | U | 25.8 | 24.8 | 103 | 99.2 | 1 | 54.0-142 | | | 3.91 | 20 |
| Chloroethane | 25.0 | U | 27.7 | 26.2 | 111 | 105 | 1 | 23.0-160 | | | 5.47 | 20 |
| 2-Chloroethyl vinyl ether | 125 | U | ND | ND | 0.000 | 0.000 | 1 | 10.0-160 | J6 | J6 | 0.000 | 40 |
| Chloroform | 25.0 | U | 26.6 | 24.6 | 106 | 98.3 | 1 | 50.0-139 | | | 7.76 | 20 |
| Chloromethane | 25.0 | U | 27.2 | 25.5 | 109 | 102 | 1 | 14.0-151 | | | 6.48 | 20 |
| 2-Chlorotoluene | 25.0 | U | 24.5 | 23.4 | 97.8 | 93.7 | 1 | 48.0-142 | | | 4.27 | 20 |
| 4-Chlorotoluene | 25.0 | U | 24.5 | 23.2 | 98.0 | 92.7 | 1 | 52.0-139 | | | 5.61 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | U | 23.4 | 23.9 | 93.5 | 95.4 | 1 | 49.0-144 | | | 1.99 | 24 |
| 1,2-Dibromoethane | 25.0 | U | 24.3 | 23.6 | 97.3 | 94.2 | 1 | 54.0-140 | | | 3.22 | 20 |
| Dibromomethane | 25.0 | U | 26.1 | 25.7 | 104 | 103 | 1 | 53.0-138 | | | 1.67 | 20 |
| 1,2-Dichlorobenzene | 25.0 | U | 24.2 | 24.0 | 96.9 | 95.9 | 1 | 56.0-139 | | | 1.05 | 20 |
| 1,3-Dichlorobenzene | 25.0 | U | 23.4 | 22.7 | 93.7 | 90.9 | 1 | 50.0-141 | | | 3.01 | 20 |
| 1,4-Dichlorobenzene | 25.0 | U | 23.9 | 23.2 | 95.5 | 92.9 | 1 | 53.0-136 | | | 2.73 | 20 |
| Dichlorodifluoromethane | 25.0 | U | 30.3 | 28.2 | 121 | 113 | 1 | 20.0-160 | | | 7.15 | 21 |
| 1,1-Dichloroethane | 25.0 | U | 27.3 | 25.4 | 109 | 101 | 1 | 47.0-143 | | | 7.40 | 20 |
| 1,2-Dichloroethane | 25.0 | U | 28.7 | 28.0 | 115 | 112 | 1 | 47.0-141 | | | 2.66 | 20 |
| 1,1-Dichloroethene | 25.0 | U | 26.2 | 25.1 | 105 | 100 | 1 | 31.0-148 | | | 4.37 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 2.63 | 28.1 | 25.6 | 102 | 91.8 | 1 | 43.0-142 | | | 9.27 | 20 |
| trans-1,2-Dichloroethene | 25.0 | U | 23.6 | 21.6 | 94.3 | 86.4 | 1 | 36.0-141 | | | 8.76 | 20 |
| 1,2-Dichloropropane | 25.0 | U | 27.7 | 26.8 | 111 | 107 | 1 | 51.0-141 | | | 3.38 | 20 |
| 1,1-Dichloropropene | 25.0 | U | 24.4 | 22.9 | 97.6 | 91.4 | 1 | 42.0-146 | | | 6.48 | 20 |
| 1,3-Dichloropropane | 25.0 | U | 25.3 | 24.6 | 101 | 98.3 | 1 | 58.0-139 | | | 2.86 | 20 |
| cis-1,3-Dichloropropene | 25.0 | U | 25.9 | 25.3 | 104 | 101 | 1 | 53.0-139 | | | 2.63 | 20 |
| trans-1,3-Dichloropropene | 25.0 | U | 27.4 | 26.6 | 110 | 106 | 1 | 51.0-143 | | | 3.10 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | U | 22.4 | 21.0 | 89.5 | 84.1 | 1 | 40.0-150 | | | 6.21 | 21 |
| 2,2-Dichloropropane | 25.0 | U | 27.8 | 25.5 | 111 | 102 | 1 | 43.0-139 | | | 8.81 | 20 |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | U | 31.4 | 29.8 | 126 | 119 | 1 | 44.0-144 | | | 5.01 | 20 |
| Ethylbenzene | 25.0 | U | 23.2 | 22.1 | 92.8 | 88.2 | 1 | 42.0-147 | | | 5.08 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | U | 23.4 | 24.0 | 93.5 | 96.1 | 1 | 44.0-146 | | | 2.80 | 21 |
| 2-Hexanone | 125 | U | 119 | 124 | 94.8 | 98.9 | 1 | 36.0-145 | | | 4.16 | 23 |
| n-Hexane | 25.0 | 0.306 | 20.9 | 20.2 | 82.3 | 79.5 | 1 | 13.0-145 | | | 3.41 | 20 |
| Iodomethane | 125 | U | 148 | 135 | 118 | 108 | 1 | 30.0-151 | | | 9.18 | 20 |
| Isopropylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.3 | 1 | 48.0-141 | | | 3.96 | 20 |
| p-Isopropyltoluene | 25.0 | U | 24.1 | 23.4 | 96.4 | 93.5 | 1 | 49.0-146 | | | 3.02 | 20 |
| 2-Butanone (MEK) | 125 | U | 115 | 122 | 92.2 | 97.3 | 1 | 12.0-149 | | | 5.41 | 24 |
| Methylene Chloride | 25.0 | U | 24.2 | 22.6 | 96.7 | 90.6 | 1 | 42.0-135 | | | 6.50 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | U | 161 | 168 | 129 | 134 | 1 | 44.0-160 | | | 3.97 | 22 |
| Methyl tert-butyl ether | 25.0 | U | 30.1 | 28.4 | 120 | 114 | 1 | 42.0-142 | | | 5.67 | 20 |
| Naphthalene | 25.0 | U | 20.9 | 23.3 | 83.5 | 93.4 | 1 | 42.0-146 | | | 11.2 | 24 |
| n-Propylbenzene | 25.0 | U | 24.6 | 23.4 | 98.5 | 93.5 | 1 | 47.0-144 | | | 5.12 | 20 |
| Styrene | 25.0 | U | 25.2 | 23.3 | 101 | 93.2 | 1 | 47.0-147 | | | 7.65 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | U | 25.6 | 24.5 | 102 | 98.0 | 1 | 52.0-140 | | | 4.18 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | U | 25.5 | 25.9 | 102 | 104 | 1 | 46.0-149 | | | 1.39 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | U | 28.6 | 26.8 | 114 | 107 | 1 | 40.0-151 | | | 6.40 | 21 |
| Tetrachloroethene | 25.0 | 0.566 | 23.5 | 21.8 | 91.9 | 84.9 | 1 | 38.0-147 | | | 7.73 | 20 |
| Toluene | 25.0 | U | 24.2 | 22.7 | 96.6 | 90.8 | 1 | 42.0-141 | | | 6.21 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | U | 19.3 | 21.2 | 77.2 | 84.7 | 1 | 45.0-145 | | | 9.27 | 22 |
| 1,2,4-Trichlorobenzene | 25.0 | U | 20.9 | 21.7 | 83.8 | 86.7 | 1 | 49.0-147 | | | 3.51 | 21 |
| 1,1,1-Trichloroethane | 25.0 | U | 27.0 | 25.4 | 108 | 102 | 1 | 46.0-140 | | | 5.94 | 20 |
| 1,1,2-Trichloroethane | 25.0 | U | 24.2 | 23.8 | 97.0 | 95.3 | 1 | 54.0-139 | | | 1.80 | 20 |
| Trichloroethene | 25.0 | 0.355 | 24.4 | 23.3 | 96.4 | 91.9 | 1 | 32.0-156 | | | 4.69 | 20 |
| Trichlorofluoromethane | 25.0 | U | 30.6 | 28.3 | 122 | 113 | 1 | 32.0-152 | | | 7.70 | 20 |
| 1,2,3-Trichloropropane | 25.0 | U | 25.8 | 25.6 | 103 | 102 | 1 | 54.0-143 | | | 0.930 | 21 |
| 1,2,4-Trimethylbenzene | 25.0 | U | 23.9 | 23.0 | 95.5 | 92.0 | 1 | 41.0-146 | | | 3.76 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | U | 24.5 | 24.4 | 97.9 | 97.4 | 1 | 48.0-138 | | | 0.420 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | U | 24.2 | 23.2 | 96.8 | 92.6 | 1 | 44.0-143 | | | 4.44 | 20 |
| Vinyl acetate | 125 | U | 170 | 170 | 136 | 136 | 1 | 30.0-160 | | | 0.0400 | 20 |
| Vinyl chloride | 25.0 | 5.22 | 35.1 | 32.8 | 119 | 110 | 1 | 24.0-153 | | | 6.56 | 20 |
| Xylenes, Total | 75.0 | U | 69.6 | 65.6 | 92.8 | 87.5 | 1 | 41.0-148 | | | 5.92 | 20 |
| *(S) Toluene-d8* | | | | | *111* | *108* | | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | | *105* | *102* | | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *101* | *97.0* | | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| E | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J0 | J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

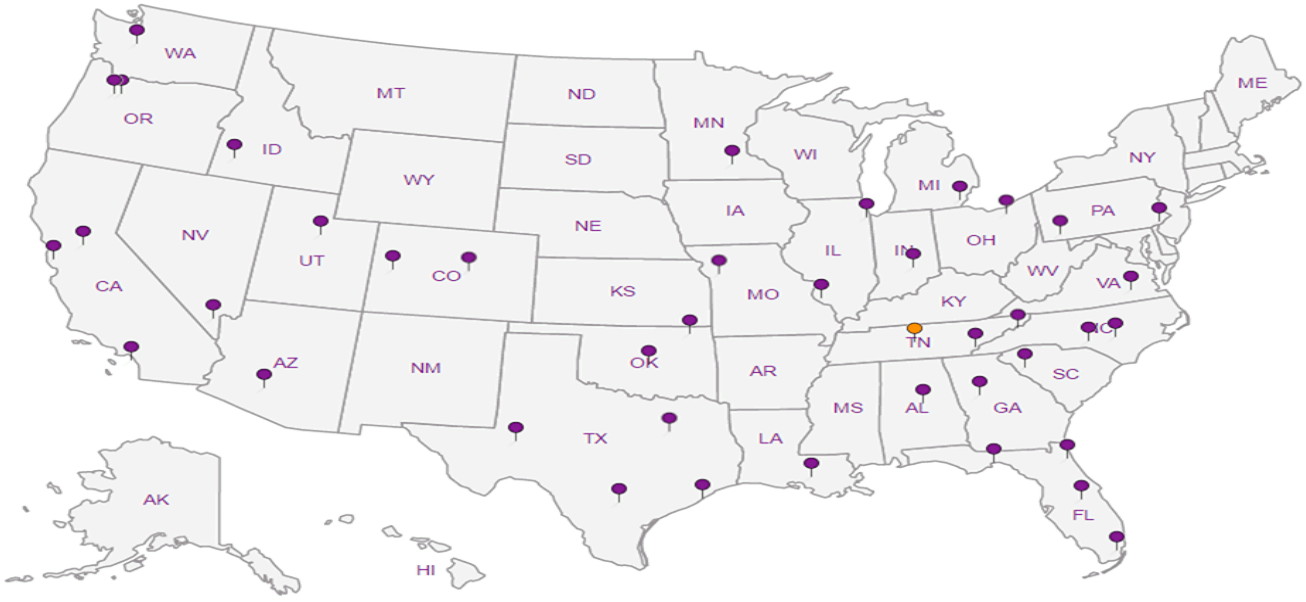
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



# MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 20 and 21, 2017- Groundwater Samples

**LAB:** ESC Lab ID L897427

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Nine (9) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 20 and 21, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897427. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897427 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 5.7 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*NWTPH-Gx Method:*
All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for naphthalene were identified by the laboratory for sample SCS-2-032117 associated with analytical batch WG964116 (analyzed on March 28, 2017). The naphthalene result is qualified by the laboratory "J0" to indicate that percent difference for naphthalene CCV is outside of laboratory acceptance criteria. **Sample SCS-2-032117 result for naphthalene is detected above the reporting detection limit (RDL) and estimated (J).**

## Method Blank Results

*USEPA Method 8260C:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections are reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compound 1,2,3-trichlorobenzene was not detected in the associated samples thus no action is required. **Low level acetone detections in samples MW-9-032017, R-MW-2-032117, R-MW-3-032117, R-MW-6-032117, MW116-032117, J5-032117, and K8-032117 are qualified as non-detect (U) due to blank contamination. Low level acetone and naphthalene detections in sample MW-8-032017 are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*
A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL with the following discussion:

- Low level manganese was detected in the method blank (WG963750) less than the RDL but greater than the MDL. No action was necessary as associated manganese results are significantly greater than low level manganese detection in the blank.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

## Trip Blank Results

*USEPA Method 8260C and NWTPH-Gx:*
A trip blank was collected and analyzed. The target analytes were not detected in the method blanks at or above the RDL with the following discussion:

- A low level acetone detection was reported below the RDL in the Trip Blank. No action was taken other than to note that low level acetone detection was also reported in the method blank and associated samples. Acetone detections in the associated samples are qualified as not detected (U) due to blank contamination.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*
Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples, and on sample MW116-032117. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) and not associated with this SDG. No action was taken in this case. Refer to LCS/LCSD results for precision data.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample R-MW-6-032117. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch, sample R-MW-6-032117, and sample J5-032117. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample MW116-032117. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C:*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*
The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C:*
LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) spike compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within and MS/MSD recoveries are within criteria for these compounds.

*NWTPH-Gx Method:*
LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C:*
MS/MSD analysis was performed on a client sample from another SDG within the analytical batch. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.

*NWTPH-Gx Method:*
Matrix spike analysis was not performed. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*
Matrix spike analysis was not performed. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on sample R-MW-6-032117. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- MS/MSD recoveries for manganese are outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3900
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Karsten Sorhaug

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCS-2-032017 | Grab | GW | 17.5 | 3-20-17 | 1345 | 6 | | X | | | X | | | -01 |
| MW-8-032017 | Grab | GW | 15 | 3-20-17 | 1420 | 4 | | | | | X | | | -02 |
| MW-9-032017 | Grab | GW | 15 | 3-20-17 | 1520 | 6 | | X | | | X | | | -03 |
| R-MW-2-032117 | Grab | GW | 10 | 3-21-17 | 905 | 4 | | | | | X | | | -04 |
| R-MW-3-032117 | Grab | GW | 12 | | 950 | 6 | | X | | | X | | | -05 |
| R-MW-6-032117 | Grab | GW | 17 | | 1130 | 11 | X | X | X | X | X | X | | -06 |
| MW16-032117 | Grab | GW | 40 | | 1330 | 9 | X | | X | X | X | X | | -07 |
| J5-032117 | Grab | GW | 25 | | 1400 | 9 | X | | X | X | X | X | | -08 |
| K8-032117 | Grab | GW | 25 | | 1500 | 9 | X | | X | X | X | X | | -09 |
| TRIP BLANK | — | GW | — | — | — | 1 | | | | | X | | | -10 |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7176 9011 7096

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 3/21/17 | 1630 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: (Yes) / No
HCl / MeoH
TBP

Temp: 5.7 °C Bottles Received: 64

Date: 3-22-17 Time: 0900

Sample Receipt Checklist
COC Seal Present/Intact: __NP (Y) __N
COC Signed/Accurate: (Y) __N
Bottles arrive intact: (Y) __N
Correct bottles used: (Y) __N
Sufficient volume sent: (Y) __N
If Applicable
VOA Zero Headspace: ✓ __N
Preservation Correct/Checked: (Y) __N

If preservation required by Login: Date/Time
C2

Hold:

Conditions: NCF / (OK)

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1897 427
A118

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17 GW
Shipped Via: FedEx Ground

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 1660 | | 31.6 | 100 | 1 | 03/23/2017 15:57 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *94.2* | | | *77.0-122* | | *03/23/2017 15:57* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 78.8 | | 1.05 | 25.0 | 1 | 03/28/2017 13:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Benzene | 51.8 | | 0.0896 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Butylbenzene | 2.49 | | 0.143 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| sec-Butylbenzene | 2.02 | | 0.134 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Di-isopropyl ether | 1.41 | | 0.0924 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Ethylbenzene | 155 | J4 | 0.158 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Hexane | 3.96 | | 0.305 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Isopropylbenzene | 19.0 | | 0.126 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| p-Isopropyltoluene | 0.379 J | J | 0.138 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |

jc 4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Naphthalene | 61.8 | J | J0 | 0.174 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| n-Propylbenzene | 43.9 | | | 0.162 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Styrene | U | | | 0.117 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | | 0.120 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | | 0.164 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Tetrachloroethene | U | | | 0.199 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Toluene | 9.54 | | | 0.412 | 1.00 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | | 0.164 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | | 0.355 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | | 0.0940 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | | 0.186 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Trichloroethene | U | | | 0.153 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Trichlorofluoromethane | U | | | 0.130 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | | 0.247 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,4-Trimethylbenzene | 60.3 | | | 0.123 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,2,3-Trimethylbenzene | 59.3 | | | 0.0739 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| 1,3,5-Trimethylbenzene | 5.36 | | | 0.124 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Vinyl acetate | U | | | 0.645 | 2.50 | 1 | 03/28/2017 13:29 | WG964116 |
| Vinyl chloride | U | | | 0.118 | 0.500 | 1 | 03/28/2017 13:29 | WG964116 |
| Xylenes, Total | 181 | | J4 | 0.316 | 1.50 | 1 | 03/28/2017 13:29 | WG964116 |
| *(S) Toluene-d8* | *110* | | | | *80.0-120* | | *03/28/2017 13:29* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | | *76.0-123* | | *03/28/2017 13:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *98.7* | | | | *80.0-120* | | *03/28/2017 13:29* | WG964116 |

JC 4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|---|
| | ug/l | | | ug/l | ug/l | | date / time | |
| Acetone | 3.68 | U | B J | 1.05 | 25.0 | 1 | 03/28/2017 13:49 | WG964116 |
| Acrylonitrile | U | | | 0.873 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Benzene | 0.145 | J | J | 0.0896 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromobenzene | U | | | 0.133 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromodichloromethane | U | | | 0.0800 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromochloromethane | U | | | 0.145 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromoform | U | | | 0.186 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Bromomethane | U | | | 0.157 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| n-Butylbenzene | U | | | 0.143 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| sec-Butylbenzene | U | | | 0.134 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| tert-Butylbenzene | U | | | 0.183 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Carbon disulfide | U | | | 0.101 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Carbon tetrachloride | U | | | 0.159 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chlorobenzene | U | | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chlorodibromomethane | U | | | 0.128 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloroethane | U | | | 0.141 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | | 0.877 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloroform | U | | | 0.0860 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Chloromethane | U | | | 0.153 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Chlorotoluene | U | | | 0.111 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 4-Chlorotoluene | U | | | 0.0972 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | | 0.325 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dibromoethane | U | | | 0.193 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Dibromomethane | U | | | 0.117 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | | 0.101 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | | 0.121 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Dichlorodifluoromethane | U | | | 0.127 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloroethane | U | | | 0.114 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichloroethane | U | | | 0.108 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloroethene | U | | | 0.188 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | | 0.0933 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | | 0.152 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2-Dichloropropane | U | | | 0.190 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1-Dichloropropene | U | | | 0.128 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,3-Dichloropropane | U | | | 0.147 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | | 0.0976 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | | 0.222 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | | 0.257 | 5.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 2,2-Dichloropropane | U | | | 0.0929 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Di-isopropyl ether | U | | | 0.0924 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Ethylbenzene | 0.175 | J | J J4 | 0.158 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| Hexachloro-1,3-butadiene | U | | | 0.157 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Hexanone | U | | | 0.757 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| n-Hexane | U | | | 0.305 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| Iodomethane | U | | | 0.377 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Isopropylbenzene | U | | | 0.126 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| p-Isopropyltoluene | U | | | 0.138 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 2-Butanone (MEK) | U | | | 1.28 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Methylene Chloride | U | | | 1.07 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | | 0.823 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Methyl tert-butyl ether | U | | | 0.102 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Naphthalene | 0.195 | U | B J | 0.174 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| n-Propylbenzene | U | | | 0.162 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| Styrene | U | | | 0.117 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | | 0.120 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/29/2017 14:54 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 13:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 13:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/29/2017 14:54 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 13:49* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/29/2017 14:54* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 13:49* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 14:54* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *03/28/2017 13:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/29/2017 14:54* | WG964116 |



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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 52.8 | J | 31.6 | 100 | 1 | 03/23/2017 16:20 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.3* | | | *77.0-122* | | *03/23/2017 16:20* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 4.08 W | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| cis-1,2-Dichloroethene | 0.140 J | J | 0.0933 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| n-Hexane | 0.311 J | J | 0.305 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:14 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:09 | WG964116 |
| Vinyl chloride | 0.324 J | J | 0.118 | 0.500 | 1 | 03/28/2017 14:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:09 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 14:09* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/29/2017 15:14* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 14:09* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 15:14* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *96.5* | | | *80.0-120* | | *03/28/2017 14:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 15:14* | WG964116 |



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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.29 | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Benzene | 0.272 | J | 0.0896 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.341 | J | 0.0933 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:35 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:29 | WG964116 |
| Vinyl chloride | 0.522 | | 0.118 | 0.500 | 1 | 03/28/2017 14:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:29 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 14:29* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 15:35* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 15:35* | WG964116 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *03/28/2017 14:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 14:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/29/2017 15:35* | WG964116 |



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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/23/2017 16:42 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.5* | | | *77.0-122* | | *03/23/2017 16:42* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 14.3 | B J | 1.05 | 25.0 | 1 | 03/28/2017 14:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| cis-1,2-Dichloroethene | 0.575 | | 0.0933 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 15:55 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Tetrachloroethene | 1.38 | | 0.199 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Trichloroethene | 0.714 | | 0.153 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 14:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 14:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 14:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 15:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 14:49* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 14:49* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 15:55* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 14:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/29/2017 15:55* | WG964116 |



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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 586000 | | 2710 | 20000 | 1 | 03/23/2017 10:36 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 5720 | | 51.9 | 1000 | 1 | 03/22/2017 22:20 | WG963216 |
| Nitrate | 191 | | 22.7 | 100 | 1 | 03/22/2017 22:20 | WG963216 |
| Sulfate | 119000 | | 387 | 25000 | 5 | 03/27/2017 16:29 | WG964054 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 6280 | | 102 | 1000 | 1 | 03/25/2017 00:57 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5020 | | 15.0 | 100 | 1 | 03/24/2017 12:21 | WG963750 |
| Manganese | 6240 | V | 0.250 | 5.00 | 1 | 03/24/2017 12:21 | WG963750 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 42.8 J | J | 31.6 | 100 | 1 | 03/23/2017 17:04 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.7* | | | *77.0-122* | | *03/23/2017 17:04* | WG963440 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 9410 | | 5.74 | 13.6 | 20 | 03/23/2017 11:23 | WG963506 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 21:24 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 21:24 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.14 U | B J | 1.05 | 25.0 | 1 | 03/28/2017 15:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloroethane | 0.977 | | 0.141 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| cis-1,2-Dichloroethene | 20.0 | | 0.0933 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,2-Dichloroethene | 0.242 | J J | 0.152 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 16:15 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Tetrachloroethene | 1.08 | | 0.199 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Trichloroethene | 3.17 | | 0.153 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:09 | WG964116 |
| Vinyl chloride | 8.65 | | 0.118 | 0.500 | 1 | 03/28/2017 15:09 | WG964116 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:09 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 15:09* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 16:15* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 15:09* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/29/2017 16:15* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.6* | | | *80.0-120* | | *03/28/2017 15:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 16:15* | WG964116 |



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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 432000 | | 2710 | 20000 | 1 | 03/23/2017 10:51 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22000 | | 51.9 | 1000 | 1 | 03/22/2017 22:51 | WG963216 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/22/2017 22:51 | WG963216 |
| Sulfate | 25700 | | 77.4 | 5000 | 1 | 03/22/2017 22:51 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7340 | | 102 | 1000 | 1 | 03/25/2017 01:10 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 6010 | | 15.0 | 100 | 1 | 03/24/2017 13:16 | WG963750 |
| Manganese | 869 | | 0.250 | 5.00 | 1 | 03/24/2017 13:16 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 8590 | | 11.5 | 27.1 | 40 | 03/23/2017 11:40 | WG963506 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 21:58 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 21:58 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.32 u | B J | 1.05 | 25.0 | 1 | 03/28/2017 15:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:29 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 15:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:29 | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/28/2017 15:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 15:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.2* | | | *80.0-120* | | *03/28/2017 15:29* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Alkalinity | 53400 | | 2710 | 20000 | 1 | 03/23/2017 09:26 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Chloride | 28000 | | 51.9 | 1000 | 1 | 03/22/2017 23:06 | WG963216 |
| Nitrate | 58.4 | J J P1 | 22.7 | 100 | 1 | 03/22/2017 23:06 | WG963216 |
| Sulfate | 16300 | | 77.4 | 5000 | 1 | 03/22/2017 23:06 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| TOC (Total Organic Carbon) | 4100 | | 102 | 1000 | 1 | 03/25/2017 01:37 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Iron | 1090 | | 15.0 | 100 | 1 | 03/24/2017 13:20 | WG963750 |
| Manganese | 474 | | 0.250 | 5.00 | 1 | 03/24/2017 13:20 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Methane | 2370 | | 5.74 | 13.6 | 20 | 03/23/2017 13:20 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 22:31 | WG963229 |
| Ethene | 29.4 | | 0.422 | 1.27 | 1 | 03/22/2017 22:31 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Acetone | 3.24 | u B J | 1.05 | 25.0 | 1 | 03/28/2017 15:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Benzene | 0.580 | | 0.0896 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloroethene | 0.453 | J J | 0.188 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| cis-1,2-Dichloroethene | 253 | | 0.933 | 5.00 | 10 | 03/29/2017 16:35 | WG964116 |
| trans-1,2-Dichloroethene | 1.73 | | 0.152 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Tetrachloroethene | 285 | | 1.99 | 5.00 | 10 | 03/29/2017 16:35 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Trichloroethene | 78.5 | | 0.153 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 15:49 | WG964116 |
| Vinyl chloride | 29.6 | | 0.118 | 0.500 | 1 | 03/28/2017 15:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 15:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/28/2017 15:49* | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 16:35* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/29/2017 16:35* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 15:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.0* | | | *80.0-120* | | *03/28/2017 15:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 16:35* | WG964116 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 70300 | | 2710 | 20000 | 1 | 03/23/2017 08:52 | WG963291 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 10100 | | 51.9 | 1000 | 1 | 03/22/2017 23:22 | WG963216 |
| Nitrate | 103 | | 22.7 | 100 | 1 | 03/22/2017 23:22 | WG963216 |
| Sulfate | 27200 | | 77.4 | 5000 | 1 | 03/22/2017 23:22 | WG963216 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 5930 | | 102 | 1000 | 1 | 03/25/2017 01:51 | WG963248 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 62.2 J | J | 15.0 | 100 | 1 | 03/24/2017 13:23 | WG963750 |
| Manganese | 242 | | 0.250 | 5.00 | 1 | 03/24/2017 13:23 | WG963750 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 41.4 | | 0.287 | 0.678 | 1 | 03/22/2017 22:48 | WG963229 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/22/2017 22:48 | WG963229 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/22/2017 22:48 | WG963229 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.26 U | BJ | 1.05 | 25.0 | 1 | 03/28/2017 16:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Benzene | 0.239 J | J | 0.0896 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloroethene | 1.47 | | 0.188 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| cis-1,2-Dichloroethene | 123 | | 0.0933 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,2-Dichloroethene | 0.680 | | 0.152 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Tetrachloroethene | 82.5 | | 0.199 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Trichloroethene | 22.0 | | 0.153 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:09 | WG964116 |
| Vinyl chloride | 0.461 | J J | 0.118 | 0.500 | 1 | 03/28/2017 16:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 16:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 16:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *03/28/2017 16:09* | WG964116 |

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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/23/2017 14:06 | WG963440 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *96.4* | | | *77.0-122* | | *03/23/2017 14:06* | WG963440 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 2.70 | B J | 1.05 | 25.0 | 1 | 03/28/2017 12:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 12:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 12:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 12:49 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 12:49* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 12:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 12:49* | WG964116 |

Cp
1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc
9

4/26/17

# ANALYTICAL REPORT

March 30, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L897678 |
| Samples Received: | 03/23/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW125-032217 L897678-01 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 08:35
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963909 | 1 | 03/30/17 00:57 | 03/30/17 00:57 | BMB |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 16:29 | 03/28/17 16:29 | JHH |

## BB-8-032217 L897678-02 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 10:20
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 08:17 | 03/25/17 08:17 | AMC |
| Wet Chemistry by Method 9056A | WG963516 | 1 | 03/23/17 12:28 | 03/23/17 12:28 | SAM |
| Wet Chemistry by Method 9060A | WG964268 | 1 | 03/27/17 19:12 | 03/27/17 19:12 | SJM |
| Metals (ICPMS) by Method 6020 | WG963864 | 1 | 03/24/17 19:01 | 03/27/17 02:33 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963578 | 1 | 03/23/17 15:16 | 03/23/17 15:16 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 16:49 | 03/28/17 16:49 | JHH |

## MW113-032217 L897678-03 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 12:05
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 10:48 | 03/25/17 10:48 | AMC |
| Wet Chemistry by Method 9056A | WG963516 | 1 | 03/23/17 12:54 | 03/23/17 12:54 | SAM |
| Wet Chemistry by Method 9060A | WG964268 | 1 | 03/27/17 19:35 | 03/27/17 19:35 | SJM |
| Metals (ICPMS) by Method 6020 | WG963864 | 1 | 03/24/17 19:01 | 03/27/17 02:36 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963578 | 1 | 03/23/17 16:31 | 03/23/17 16:31 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG964586 | 10 | 03/27/17 16:06 | 03/27/17 16:06 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 17:09 | 03/28/17 17:09 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 200 | 03/29/17 17:55 | 03/29/17 17:55 | BMB |

## MW115-032217 L897678-04 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 12:25
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 10:55 | 03/25/17 10:55 | AMC |
| Wet Chemistry by Method 9056A | WG963516 | 1 | 03/23/17 13:19 | 03/23/17 13:19 | SAM |
| Wet Chemistry by Method 9060A | WG964268 | 1 | 03/27/17 19:51 | 03/27/17 19:51 | SJM |
| Metals (ICPMS) by Method 6020 | WG963864 | 1 | 03/24/17 19:01 | 03/27/17 02:39 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963578 | 1 | 03/23/17 17:21 | 03/23/17 17:21 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 17:29 | 03/28/17 17:29 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 16:55 | 03/29/17 16:55 | BMB |

## MW112-032217 L897678-05 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 14:05
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 08:52 | 03/25/17 08:52 | AMC |
| Wet Chemistry by Method 9056A | WG963516 | 1 | 03/23/17 13:58 | 03/23/17 13:58 | SAM |
| Wet Chemistry by Method 9060A | WG964268 | 1 | 03/27/17 20:08 | 03/27/17 20:08 | SJM |
| Metals (ICPMS) by Method 6020 | WG963864 | 1 | 03/24/17 19:01 | 03/26/17 22:51 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG963578 | 1 | 03/23/17 17:37 | 03/23/17 17:37 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 17:49 | 03/28/17 17:49 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 17:15 | 03/29/17 17:15 | BMB |

## G12-032217 L897678-06 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 14:35
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 18:09 | 03/28/17 18:09 | JHH |

## TRIP BLANK-032217 L897678-07 GW

Collected by: Karsten Springstead
Collected date/time: 03/22/17 00:00
Received date/time: 03/23/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG963909 | 1 | 03/30/17 02:26 | 03/30/17 02:26 | BMB |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 13:09 | 03/28/17 13:09 | JHH |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/30/2017 00:57 | WG963909 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *97.5* | | | *77.0-122* | | *03/30/2017 00:57* | WG963909 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.20 | B J | 1.05 | 25.0 | 1 | 03/28/2017 16:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.341 | J | 0.0933 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Tetrachloroethene | 0.285 | J | 0.199 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:29 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 16:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 16:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *98.6* | | | *80.0-120* | | *03/28/2017 16:29* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 254000 | | 2710 | 20000 | 1 | 03/25/2017 08:17 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 7870 | | 51.9 | 1000 | 1 | 03/23/2017 12:28 | WG963516 |
| Nitrate | 3170 | | 22.7 | 100 | 1 | 03/23/2017 12:28 | WG963516 |
| Sulfate | 41500 | | 77.4 | 5000 | 1 | 03/23/2017 12:28 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2250 | | 102 | 1000 | 1 | 03/27/2017 19:12 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 125 | | 15.0 | 100 | 1 | 03/27/2017 02:33 | WG963864 |
| Manganese | 70.5 | | 0.250 | 5.00 | 1 | 03/27/2017 02:33 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 0.412 | J | 0.287 | 0.678 | 1 | 03/23/2017 15:16 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 15:16 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 15:16 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.52 | B J | 1.05 | 25.0 | 1 | 03/28/2017 16:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| cis-1,2-Dichloroethene | 3.10 | | 0.0933 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Tetrachloroethene | 30.4 | | 0.199 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Trichloroethene | 4.95 | | 0.153 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:49 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 16:49* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 16:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/28/2017 16:49* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 594000 | | 2710 | 20000 | 1 | 03/25/2017 10:48 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 65500 | | 51.9 | 1000 | 1 | 03/23/2017 12:54 | WG963516 |
| Nitrate | 29.5 | J | 22.7 | 100 | 1 | 03/23/2017 12:54 | WG963516 |
| Sulfate | 55400 | | 77.4 | 5000 | 1 | 03/23/2017 12:54 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 27000 | | 102 | 1000 | 1 | 03/27/2017 19:35 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 7460 | | 15.0 | 100 | 1 | 03/27/2017 02:36 | WG963864 |
| Manganese | 757 | | 0.250 | 5.00 | 1 | 03/27/2017 02:36 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 3530 | | 2.87 | 6.78 | 10 | 03/27/2017 16:06 | WG964586 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 16:31 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 16:31 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.28 | B J | 1.05 | 25.0 | 1 | 03/28/2017 17:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Benzene | 2.60 | | 0.0896 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloroethene | 10.7 | | 0.188 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| cis-1,2-Dichloroethene | 7280 | | 18.7 | 100 | 200 | 03/29/2017 17:55 | WG964116 |
| trans-1,2-Dichloroethene | 25.4 | | 0.152 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichloropropane | 0.240 | J | 0.190 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Trichloroethene | 27.1 | | 0.153 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Vinyl chloride | 63.5 | | 0.118 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 17:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 17:09* | WG964116 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *03/29/2017 17:55* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 17:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.7* | | | *80.0-120* | | *03/28/2017 17:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:55* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 417000 | | 2710 | 20000 | 1 | 03/25/2017 10:55 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 28500 | | 51.9 | 1000 | 1 | 03/23/2017 13:19 | WG963516 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/23/2017 13:19 | WG963516 |
| Sulfate | 35900 | | 77.4 | 5000 | 1 | 03/23/2017 13:19 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7690 | | 102 | 1000 | 1 | 03/27/2017 19:51 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5690 | | 15.0 | 100 | 1 | 03/27/2017 02:39 | WG963864 |
| Manganese | 1320 | | 0.250 | 5.00 | 1 | 03/27/2017 02:39 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 215 | | 0.287 | 0.678 | 1 | 03/23/2017 17:21 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 17:21 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 17:21 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.67 | B J | 1.05 | 25.0 | 1 | 03/28/2017 17:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.643 | | 0.0933 | 0.500 | 1 | 03/29/2017 16:55 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Vinyl chloride | 15.7 | | 0.118 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:29 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 16:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 17:29* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/28/2017 17:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/29/2017 16:55* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.7* | | | *80.0-120* | | *03/28/2017 17:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/29/2017 16:55* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 188000 | | 2710 | 20000 | 1 | 03/25/2017 08:52 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 10600 | | 51.9 | 1000 | 1 | 03/23/2017 13:58 | WG963516 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/23/2017 13:58 | WG963516 |
| Sulfate | 45200 | | 77.4 | 5000 | 1 | 03/23/2017 13:58 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1350 | | 102 | 1000 | 1 | 03/27/2017 20:08 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 238 | | 15.0 | 100 | 1 | 03/26/2017 22:51 | WG963864 |
| Manganese | 41.1 | | 0.250 | 5.00 | 1 | 03/26/2017 22:51 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 4.89 | | 0.287 | 0.678 | 1 | 03/23/2017 17:37 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 17:37 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 17:37 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.80 | B J | 1.05 | 25.0 | 1 | 03/28/2017 17:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/29/2017 17:15 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:49 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 17:15* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/28/2017 17:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/28/2017 17:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/29/2017 17:15* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *97.6* | | | *80.0-120* | | *03/28/2017 17:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:15* | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 3.41 | B J | 1.05 | 25.0 | 1 | 03/28/2017 18:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Benzene | 0.298 | J | 0.0896 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloroethane | 0.583 | | 0.141 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloroethene | 2.23 | | 0.188 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| cis-1,2-Dichloroethene | 130 | | 0.0933 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,2-Dichloroethene | 2.85 | | 0.152 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Trichloroethene | 0.474 | J | 0.153 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Vinyl chloride | 41.9 | | 0.118 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:09 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 18:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 18:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:09* | WG964116 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/30/2017 02:26 | WG963909 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *98.2* | | | *77.0-122* | | *03/30/2017 02:26* | WG963909 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.84 | B J | 1.05 | 25.0 | 1 | 03/28/2017 13:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 13:09 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 13:09* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 13:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.8* | | | *80.0-120* | | *03/28/2017 13:09* | WG964116 |

## Method Blank (MB)

(MB) R3205870-1 03/25/17 08:09

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3130 | J | 2710 | 20000 |

## L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/25/17 08:17 • (DUP) R3205870-8 03/25/17 08:26

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 254000 | 260000 | 1 | 2.00 | | 20 |

## L897906-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-06 03/25/17 11:15 • (DUP) R3205870-11 03/25/17 11:21

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 671000 | 677000 | 1 | 1.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205870-9 03/25/17 09:20 • (LCSD) R3205870-10 03/25/17 10:37

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 94200 | 105000 | 94.0 | 105 | 85.0-115 | | | 10.0 | 20 |

## Method Blank (MB)

(MB) R3205596-1 03/23/17 07:22

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/23/17 12:28 • (DUP) R3205596-4 03/23/17 12:41

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 7870 | 7880 | 1 | 0 | | 15 |
| Nitrate | 3170 | 3150 | 1 | 1 | | 15 |
| Sulfate | 41500 | 41400 | 1 | 0 | | 15 |

## L897686-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897686-01 03/23/17 15:03 • (DUP) R3205596-6 03/23/17 15:16

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 3530 | 3540 | 1 | 0 | | 15 |
| Nitrate | 1810 | 1820 | 1 | 1 | | 15 |
| Sulfate | 11700 | 11700 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205596-2 03/23/17 07:35 • (LCSD) R3205596-3 03/23/17 07:48

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 39300 | 39400 | 98 | 98 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8110 | 8120 | 101 | 102 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 39900 | 40000 | 100 | 100 | 80-120 | | | 0 | 15 |

## L897678-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897678-03 03/23/17 12:54 • (MS) R3205596-5 03/23/17 13:07

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 65500 | 112000 | 94 | 1 | 80-120 | E |
| Nitrate | 5000 | 29.5 | 4610 | 92 | 1 | 80-120 | |

## L897678-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897678-03 03/23/17 12:54 • (MS) R3205596-5 03/23/17 13:07

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Sulfate | 50000 | 55400 | 100000 | 90 | 1 | 80-120 | E |

## L897674-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897674-04 03/23/17 19:09 • (MS) R3205596-9 03/23/17 19:21 • (MSD) R3205596-10 03/23/17 19:34

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 214000 | 5170000 | 5120000 | 99 | 98 | 100 | 80-120 | | | 1 | 15 |
| Nitrate | 5000 | 21800 | 536000 | 504000 | 103 | 97 | 100 | 80-120 | | | 6 | 15 |
| Sulfate | 50000 | 3960000 | 8890000 | 8820000 | 98 | 97 | 100 | 80-120 | | | 1 | 15 |

## Method Blank (MB)

(MB) R3206289-1 03/27/17 10:39

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L897450-10 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-10 03/27/17 15:29 • (DUP) R3206289-6 03/27/17 15:44

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 1470 | 1480 | 1 | 1 | | 20 |

## L897678-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-05 03/27/17 20:08 • (DUP) R3206289-7 03/27/17 20:26

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 1350 | 1450 | 1 | 7 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206289-2 03/27/17 12:10 • (LCSD) R3206289-5 03/27/17 14:27

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 72800 | 73000 | 97 | 97 | 85-115 | | | 0 | 20 |

## L897450-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897450-05 03/27/17 12:59 • (MS) R3206289-3 03/27/17 13:17 • (MSD) R3206289-4 03/27/17 13:35

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 2610 | 52600 | 53400 | 100 | 101 | 1 | 80-120 | | | 1 | 20 |

## Method Blank (MB)

(MB) R3205986-1 03/26/17 22:40

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205986-2 03/26/17 22:44 • (LCSD) R3205986-3 03/26/17 22:47

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 4800 | 4790 | 96 | 96 | 80-120 | | | 0 | 20 |
| Manganese | 50.0 | 46.7 | 45.9 | 93 | 92 | 80-120 | | | 2 | 20 |

## L897678-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897678-05 03/26/17 22:51 • (MS) R3205986-5 03/26/17 22:58 • (MSD) R3205986-6 03/26/17 23:01

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 238 | 4930 | 4890 | 94 | 93 | 1 | 75-125 | | | 1 | 20 |
| Manganese | 50.0 | 41.1 | 81.3 | 81.6 | 80 | 81 | 1 | 75-125 | | | 0 | 20 |

## Method Blank (MB)

(MB) R3207028-3 03/29/17 23:38

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *98.4* | | | *77.0-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207028-1 03/29/17 22:32 • (LCSD) R3207028-2 03/29/17 22:54

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | 5660 | 5940 | 103 | 108 | 72.0-134 | | | 4.97 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | *103* | *103* | *77.0-122* | | | | |

## L897678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897678-01 03/30/17 00:57 • (MS) R3207028-4 03/30/17 01:19 • (MSD) R3207028-5 03/30/17 01:41

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | U | 2710 | 2300 | 49.3 | 41.9 | 1 | 23.0-159 | | | 16.2 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | | *94.0* | *94.3* | | *77.0-122* | | | | |

## Method Blank (MB)

(MB) R3205647-1 03/23/17 12:47

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L897590-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-02 03/23/17 13:36 • (DUP) R3205647-2 03/23/17 16:48

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L897590-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-05 03/23/17 17:04 • (DUP) R3205647-3 03/23/17 18:44

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 2090 | 238 | 1 | 159 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205647-4 03/23/17 19:51 • (LCSD) R3205647-5 03/24/17 09:52

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 63.7 | 66.4 | 94.0 | 97.9 | 70.0-130 | | | 4.03 | 20 |
| Ethane | 129 | 114 | 119 | 88.7 | 92.1 | 70.0-130 | | | 3.76 | 20 |
| Ethene | 127 | 113 | 118 | 89.0 | 93.2 | 70.0-130 | | | 4.64 | 20 |

## Method Blank (MB)

(MB) R3206377-1 03/27/17 15:17

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L897633-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897633-02 03/27/17 16:56 • (DUP) R3206377-2 03/27/17 21:55

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 10200 | 10700 | 50 | 4.68 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206377-3 03/27/17 22:12 • (LCSD) R3206377-4 03/27/17 22:29

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 66.8 | 67.7 | 98.5 | 99.8 | 70.0-130 | | | 1.33 | 20 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | 2.11 | J | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.204 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | 0.255 | J | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 153 | 165 | 123 | 132 | 10.0-160 | | | 7.11 | 23 |
| Acrylonitrile | 125 | 123 | 131 | 98.5 | 105 | 60.0-142 | | | 6.50 | 20 |
| Benzene | 25.0 | 20.2 | 21.6 | 81.0 | 86.4 | 69.0-123 | | | 6.50 | 20 |
| Bromobenzene | 25.0 | 20.3 | 22.5 | 81.4 | 90.2 | 79.0-120 | | | 10.3 | 20 |
| Bromodichloromethane | 25.0 | 22.6 | 24.1 | 90.6 | 96.2 | 76.0-120 | | | 6.03 | 20 |
| Bromochloromethane | 25.0 | 20.2 | 21.3 | 80.7 | 85.3 | 76.0-122 | | | 5.62 | 20 |
| Bromoform | 25.0 | 19.9 | 21.6 | 79.5 | 86.4 | 67.0-132 | | | 8.22 | 20 |
| Bromomethane | 25.0 | 24.0 | 24.1 | 95.8 | 96.5 | 18.0-160 | | | 0.760 | 20 |
| n-Butylbenzene | 25.0 | 22.0 | 23.5 | 87.9 | 94.0 | 72.0-126 | | | 6.66 | 20 |
| sec-Butylbenzene | 25.0 | 20.0 | 21.7 | 80.0 | 86.7 | 74.0-121 | | | 8.07 | 20 |
| tert-Butylbenzene | 25.0 | 20.0 | 21.9 | 80.1 | 87.7 | 75.0-122 | | | 9.10 | 20 |
| Carbon disulfide | 25.0 | 17.9 | 18.8 | 71.8 | 75.1 | 55.0-127 | | | 4.53 | 20 |
| Carbon tetrachloride | 25.0 | 21.0 | 22.6 | 84.0 | 90.4 | 63.0-122 | | | 7.38 | 20 |
| Chlorobenzene | 25.0 | 19.7 | 21.5 | 78.7 | 86.1 | 79.0-121 | J4 | | 9.01 | 20 |
| Chlorodibromomethane | 25.0 | 21.1 | 23.0 | 84.3 | 92.2 | 75.0-125 | | | 8.84 | 20 |
| Chloroethane | 25.0 | 24.6 | 25.8 | 98.5 | 103 | 47.0-152 | | | 4.82 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 137 | 147 | 109 | 118 | 10.0-160 | | | 7.24 | 22 |
| Chloroform | 25.0 | 21.7 | 23.0 | 86.9 | 92.2 | 72.0-121 | | | 5.95 | 20 |
| Chloromethane | 25.0 | 24.6 | 24.4 | 98.2 | 97.7 | 48.0-139 | | | 0.560 | 20 |
| 2-Chlorotoluene | 25.0 | 20.2 | 22.4 | 80.9 | 89.5 | 74.0-122 | | | 10.1 | 20 |
| 4-Chlorotoluene | 25.0 | 20.5 | 22.6 | 81.8 | 90.4 | 79.0-120 | | | 9.96 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 18.2 | 19.3 | 73.0 | 77.4 | 64.0-127 | | | 5.86 | 20 |
| 1,2-Dibromoethane | 25.0 | 20.1 | 21.8 | 80.5 | 87.2 | 77.0-123 | | | 7.94 | 20 |
| Dibromomethane | 25.0 | 22.3 | 23.4 | 89.3 | 93.6 | 78.0-120 | | | 4.76 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 20.6 | 22.1 | 82.3 | 88.2 | 80.0-120 | | | 6.90 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 19.3 | 20.9 | 77.1 | 83.5 | 72.0-123 | | | 7.88 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 20.1 | 22.0 | 80.3 | 88.1 | 77.0-120 | | | 9.24 | 20 |
| Dichlorodifluoromethane | 25.0 | 27.2 | 24.6 | 109 | 98.2 | 49.0-155 | | | 10.2 | 20 |
| 1,1-Dichloroethane | 25.0 | 22.4 | 23.7 | 89.4 | 94.8 | 70.0-126 | | | 5.84 | 20 |
| 1,2-Dichloroethane | 25.0 | 23.9 | 25.1 | 95.7 | 100 | 67.0-126 | | | 4.63 | 20 |
| 1,1-Dichloroethene | 25.0 | 21.9 | 22.7 | 87.6 | 90.8 | 64.0-129 | | | 3.64 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 21.0 | 22.4 | 83.8 | 89.6 | 73.0-120 | | | 6.65 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 19.7 | 20.6 | 79.0 | 82.3 | 71.0-121 | | | 4.15 | 20 |
| 1,2-Dichloropropane | 25.0 | 22.9 | 25.3 | 91.8 | 101 | 75.0-125 | | | 9.66 | 20 |
| 1,1-Dichloropropene | 25.0 | 21.0 | 22.7 | 84.1 | 90.6 | 71.0-129 | | | 7.53 | 20 |
| 1,3-Dichloropropane | 25.0 | 21.0 | 22.4 | 84.0 | 89.8 | 80.0-121 | | | 6.70 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 25.6 | 97.1 | 102 | 79.0-123 | | | 5.13 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 23.5 | 25.4 | 94.1 | 102 | 74.0-127 | | | 7.77 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.7 | 21.7 | 82.6 | 86.7 | 55.0-134 | | | 4.88 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.5 | 24.4 | 89.9 | 97.7 | 60.0-125 | | | 8.39 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 24.5 | 26.8 | 97.9 | 107 | 59.0-133 | | | 9.12 | 20 |
| Ethylbenzene | 25.0 | 19.1 | 20.8 | 76.3 | 83.4 | 77.0-120 | J4 | | 8.88 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 19.7 | 21.5 | 78.7 | 86.0 | 64.0-131 | | | 8.79 | 20 |
| 2-Hexanone | 125 | 129 | 138 | 103 | 110 | 58.0-147 | | | 6.93 | 20 |
| n-Hexane | 25.0 | 18.1 | 19.2 | 72.5 | 76.7 | 56.0-124 | | | 5.68 | 20 |
| Iodomethane | 125 | 124 | 130 | 99.6 | 104 | 57.0-140 | | | 4.14 | 20 |
| Isopropylbenzene | 25.0 | 19.9 | 22.1 | 79.8 | 88.2 | 75.0-120 | | | 10.1 | 20 |
| p-Isopropyltoluene | 25.0 | 20.3 | 22.0 | 81.2 | 88.0 | 74.0-126 | | | 8.10 | 20 |
| 2-Butanone (MEK) | 125 | 147 | 155 | 117 | 124 | 37.0-158 | | | 5.35 | 20 |
| Methylene Chloride | 25.0 | 19.4 | 20.7 | 77.4 | 82.9 | 66.0-121 | | | 6.86 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 150 | 159 | 120 | 127 | 59.0-143 | | | 5.43 | 20 |
| Methyl tert-butyl ether | 25.0 | 23.6 | 25.4 | 94.5 | 101 | 64.0-123 | | | 7.18 | 20 |
| Naphthalene | 25.0 | 18.2 | 19.8 | 72.8 | 79.3 | 62.0-128 | | | 8.60 | 20 |
| n-Propylbenzene | 25.0 | 20.3 | 22.4 | 81.2 | 89.4 | 79.0-120 | | | 9.70 | 20 |
| Styrene | 25.0 | 21.2 | 23.1 | 84.7 | 92.6 | 78.0-124 | | | 8.85 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 20.8 | 22.5 | 83.0 | 90.0 | 75.0-122 | | | 8.03 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.1 | 22.0 | 80.6 | 87.9 | 71.0-122 | | | 8.68 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 23.5 | 24.9 | 94.2 | 99.7 | 61.0-136 | | | 5.67 | 20 |
| Tetrachloroethene | 25.0 | 19.0 | 20.7 | 76.1 | 82.8 | 70.0-127 | | | 8.45 | 20 |
| Toluene | 25.0 | 20.2 | 21.4 | 80.8 | 85.7 | 77.0-120 | | | 5.88 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 17.2 | 19.0 | 68.7 | 75.9 | 61.0-133 | | | 9.91 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 18.9 | 19.9 | 75.7 | 79.7 | 69.0-129 | | | 5.10 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 22.1 | 23.7 | 88.2 | 94.9 | 68.0-122 | | | 7.33 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 19.8 | 21.4 | 79.4 | 85.8 | 78.0-120 | | | 7.72 | 20 |
| Trichloroethene | 25.0 | 20.6 | 21.5 | 82.6 | 86.0 | 78.0-120 | | | 4.03 | 20 |
| Trichlorofluoromethane | 25.0 | 26.2 | 26.7 | 105 | 107 | 56.0-137 | | | 1.58 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 20.6 | 22.2 | 82.3 | 88.9 | 72.0-124 | | | 7.68 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 20.3 | 22.1 | 81.3 | 88.4 | 75.0-120 | | | 8.40 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 21.1 | 22.7 | 84.3 | 91.0 | 75.0-120 | | | 7.58 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 20.1 | 21.9 | 80.4 | 87.5 | 75.0-120 | | | 8.49 | 20 |
| Vinyl acetate | 125 | 139 | 149 | 111 | 119 | 46.0-160 | | | 6.86 | 20 |
| Vinyl chloride | 25.0 | 27.2 | 26.7 | 109 | 107 | 64.0-133 | | | 2.02 | 20 |
| Xylenes, Total | 75.0 | 56.9 | 62.9 | 75.9 | 83.9 | 77.0-120 | J4 | | 10.0 | 20 |
| *(S) Toluene-d8* | | | | *110* | *110* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *104* | *104* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *97.6* | *99.9* | *80.0-120* | | | | |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 3.09 | 86.2 | 89.9 | 66.5 | 69.5 | 1 | 10.0-139 | | | 4.23 | 25 |
| Acrylonitrile | 125 | U | 153 | 153 | 122 | 122 | 1 | 46.0-159 | | | 0.0900 | 23 |
| Benzene | 25.0 | U | 24.1 | 23.1 | 96.4 | 92.3 | 1 | 34.0-147 | | | 4.35 | 20 |
| Bromobenzene | 25.0 | U | 25.0 | 23.7 | 100 | 94.6 | 1 | 51.0-137 | | | 5.55 | 20 |
| Bromodichloromethane | 25.0 | U | 27.2 | 26.1 | 109 | 105 | 1 | 52.0-135 | | | 3.82 | 20 |
| Bromochloromethane | 25.0 | U | 25.7 | 23.2 | 103 | 93.0 | 1 | 53.0-138 | | | 10.0 | 20 |
| Bromoform | 25.0 | U | 26.0 | 25.6 | 104 | 102 | 1 | 50.0-146 | | | 1.53 | 20 |
| Bromomethane | 25.0 | U | 26.4 | 24.1 | 106 | 96.3 | 1 | 10.0-160 | | | 9.34 | 23 |
| n-Butylbenzene | 25.0 | U | 25.5 | 25.5 | 102 | 102 | 1 | 50.0-144 | | | 0.0200 | 20 |
| sec-Butylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.4 | 1 | 48.0-143 | | | 3.92 | 20 |
| tert-Butylbenzene | 25.0 | U | 24.3 | 23.4 | 97.1 | 93.7 | 1 | 50.0-142 | | | 3.54 | 20 |
| Carbon disulfide | 25.0 | U | 20.2 | 18.6 | 80.7 | 74.5 | 1 | 10.0-147 | | | 8.03 | 20 |
| Carbon tetrachloride | 25.0 | U | 25.5 | 24.5 | 102 | 97.9 | 1 | 41.0-138 | | | 4.30 | 20 |
| Chlorobenzene | 25.0 | U | 23.9 | 22.5 | 95.4 | 89.9 | 1 | 52.0-141 | | | 5.93 | 20 |
| Chlorodibromomethane | 25.0 | U | 25.8 | 24.8 | 103 | 99.2 | 1 | 54.0-142 | | | 3.91 | 20 |
| Chloroethane | 25.0 | U | 27.7 | 26.2 | 111 | 105 | 1 | 23.0-160 | | | 5.47 | 20 |
| 2-Chloroethyl vinyl ether | 125 | U | ND | ND | 0.000 | 0.000 | 1 | 10.0-160 | J6 | J6 | 0.000 | 40 |
| Chloroform | 25.0 | U | 26.6 | 24.6 | 106 | 98.3 | 1 | 50.0-139 | | | 7.76 | 20 |
| Chloromethane | 25.0 | U | 27.2 | 25.5 | 109 | 102 | 1 | 14.0-151 | | | 6.48 | 20 |
| 2-Chlorotoluene | 25.0 | U | 24.5 | 23.4 | 97.8 | 93.7 | 1 | 48.0-142 | | | 4.27 | 20 |
| 4-Chlorotoluene | 25.0 | U | 24.5 | 23.2 | 98.0 | 92.7 | 1 | 52.0-139 | | | 5.61 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | U | 23.4 | 23.9 | 93.5 | 95.4 | 1 | 49.0-144 | | | 1.99 | 24 |
| 1,2-Dibromoethane | 25.0 | U | 24.3 | 23.6 | 97.3 | 94.2 | 1 | 54.0-140 | | | 3.22 | 20 |
| Dibromomethane | 25.0 | U | 26.1 | 25.7 | 104 | 103 | 1 | 53.0-138 | | | 1.67 | 20 |
| 1,2-Dichlorobenzene | 25.0 | U | 24.2 | 24.0 | 96.9 | 95.9 | 1 | 56.0-139 | | | 1.05 | 20 |
| 1,3-Dichlorobenzene | 25.0 | U | 23.4 | 22.7 | 93.7 | 90.9 | 1 | 50.0-141 | | | 3.01 | 20 |
| 1,4-Dichlorobenzene | 25.0 | U | 23.9 | 23.2 | 95.5 | 92.9 | 1 | 53.0-136 | | | 2.73 | 20 |
| Dichlorodifluoromethane | 25.0 | U | 30.3 | 28.2 | 121 | 113 | 1 | 20.0-160 | | | 7.15 | 21 |
| 1,1-Dichloroethane | 25.0 | U | 27.3 | 25.4 | 109 | 101 | 1 | 47.0-143 | | | 7.40 | 20 |
| 1,2-Dichloroethane | 25.0 | U | 28.7 | 28.0 | 115 | 112 | 1 | 47.0-141 | | | 2.66 | 20 |
| 1,1-Dichloroethene | 25.0 | U | 26.2 | 25.1 | 105 | 100 | 1 | 31.0-148 | | | 4.37 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 2.63 | 28.1 | 25.6 | 102 | 91.8 | 1 | 43.0-142 | | | 9.27 | 20 |
| trans-1,2-Dichloroethene | 25.0 | U | 23.6 | 21.6 | 94.3 | 86.4 | 1 | 36.0-141 | | | 8.76 | 20 |
| 1,2-Dichloropropane | 25.0 | U | 27.7 | 26.8 | 111 | 107 | 1 | 51.0-141 | | | 3.38 | 20 |
| 1,1-Dichloropropene | 25.0 | U | 24.4 | 22.9 | 97.6 | 91.4 | 1 | 42.0-146 | | | 6.48 | 20 |
| 1,3-Dichloropropane | 25.0 | U | 25.3 | 24.6 | 101 | 98.3 | 1 | 58.0-139 | | | 2.86 | 20 |
| cis-1,3-Dichloropropene | 25.0 | U | 25.9 | 25.3 | 104 | 101 | 1 | 53.0-139 | | | 2.63 | 20 |
| trans-1,3-Dichloropropene | 25.0 | U | 27.4 | 26.6 | 110 | 106 | 1 | 51.0-143 | | | 3.10 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | U | 22.4 | 21.0 | 89.5 | 84.1 | 1 | 40.0-150 | | | 6.21 | 21 |
| 2,2-Dichloropropane | 25.0 | U | 27.8 | 25.5 | 111 | 102 | 1 | 43.0-139 | | | 8.81 | 20 |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | U | 31.4 | 29.8 | 126 | 119 | 1 | 44.0-144 | | | 5.01 | 20 |
| Ethylbenzene | 25.0 | U | 23.2 | 22.1 | 92.8 | 88.2 | 1 | 42.0-147 | | | 5.08 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | U | 23.4 | 24.0 | 93.5 | 96.1 | 1 | 44.0-146 | | | 2.80 | 21 |
| 2-Hexanone | 125 | U | 119 | 124 | 94.8 | 98.9 | 1 | 36.0-145 | | | 4.16 | 23 |
| n-Hexane | 25.0 | 0.306 | 20.9 | 20.2 | 82.3 | 79.5 | 1 | 13.0-145 | | | 3.41 | 20 |
| Iodomethane | 125 | U | 148 | 135 | 118 | 108 | 1 | 30.0-151 | | | 9.18 | 20 |
| Isopropylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.3 | 1 | 48.0-141 | | | 3.96 | 20 |
| p-Isopropyltoluene | 25.0 | U | 24.1 | 23.4 | 96.4 | 93.5 | 1 | 49.0-146 | | | 3.02 | 20 |
| 2-Butanone (MEK) | 125 | U | 115 | 122 | 92.2 | 97.3 | 1 | 12.0-149 | | | 5.41 | 24 |
| Methylene Chloride | 25.0 | U | 24.2 | 22.6 | 96.7 | 90.6 | 1 | 42.0-135 | | | 6.50 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | U | 161 | 168 | 129 | 134 | 1 | 44.0-160 | | | 3.97 | 22 |
| Methyl tert-butyl ether | 25.0 | U | 30.1 | 28.4 | 120 | 114 | 1 | 42.0-142 | | | 5.67 | 20 |
| Naphthalene | 25.0 | U | 20.9 | 23.3 | 83.5 | 93.4 | 1 | 42.0-146 | | | 11.2 | 24 |
| n-Propylbenzene | 25.0 | U | 24.6 | 23.4 | 98.5 | 93.5 | 1 | 47.0-144 | | | 5.12 | 20 |
| Styrene | 25.0 | U | 25.2 | 23.3 | 101 | 93.2 | 1 | 47.0-147 | | | 7.65 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | U | 25.6 | 24.5 | 102 | 98.0 | 1 | 52.0-140 | | | 4.18 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | U | 25.5 | 25.9 | 102 | 104 | 1 | 46.0-149 | | | 1.39 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | U | 28.6 | 26.8 | 114 | 107 | 1 | 40.0-151 | | | 6.40 | 21 |
| Tetrachloroethene | 25.0 | 0.566 | 23.5 | 21.8 | 91.9 | 84.9 | 1 | 38.0-147 | | | 7.73 | 20 |
| Toluene | 25.0 | U | 24.2 | 22.7 | 96.6 | 90.8 | 1 | 42.0-141 | | | 6.21 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | U | 19.3 | 21.2 | 77.2 | 84.7 | 1 | 45.0-145 | | | 9.27 | 22 |
| 1,2,4-Trichlorobenzene | 25.0 | U | 20.9 | 21.7 | 83.8 | 86.7 | 1 | 49.0-147 | | | 3.51 | 21 |
| 1,1,1-Trichloroethane | 25.0 | U | 27.0 | 25.4 | 108 | 102 | 1 | 46.0-140 | | | 5.94 | 20 |
| 1,1,2-Trichloroethane | 25.0 | U | 24.2 | 23.8 | 97.0 | 95.3 | 1 | 54.0-139 | | | 1.80 | 20 |
| Trichloroethene | 25.0 | 0.355 | 24.4 | 23.3 | 96.4 | 91.9 | 1 | 32.0-156 | | | 4.69 | 20 |
| Trichlorofluoromethane | 25.0 | U | 30.6 | 28.3 | 122 | 113 | 1 | 32.0-152 | | | 7.70 | 20 |
| 1,2,3-Trichloropropane | 25.0 | U | 25.8 | 25.6 | 103 | 102 | 1 | 54.0-143 | | | 0.930 | 21 |
| 1,2,4-Trimethylbenzene | 25.0 | U | 23.9 | 23.0 | 95.5 | 92.0 | 1 | 41.0-146 | | | 3.76 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | U | 24.5 | 24.4 | 97.9 | 97.4 | 1 | 48.0-138 | | | 0.420 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | U | 24.2 | 23.2 | 96.8 | 92.6 | 1 | 44.0-143 | | | 4.44 | 20 |
| Vinyl acetate | 125 | U | 170 | 170 | 136 | 136 | 1 | 30.0-160 | | | 0.0400 | 20 |
| Vinyl chloride | 25.0 | 5.22 | 35.1 | 32.8 | 119 | 110 | 1 | 24.0-153 | | | 6.56 | 20 |
| Xylenes, Total | 75.0 | U | 69.6 | 65.6 | 92.8 | 87.5 | 1 | 41.0-148 | | | 5.92 | 20 |
| *(S) Toluene-d8* | | | | | *111* | *108* | | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | | *105* | *102* | | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *101* | *97.0* | | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| E | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

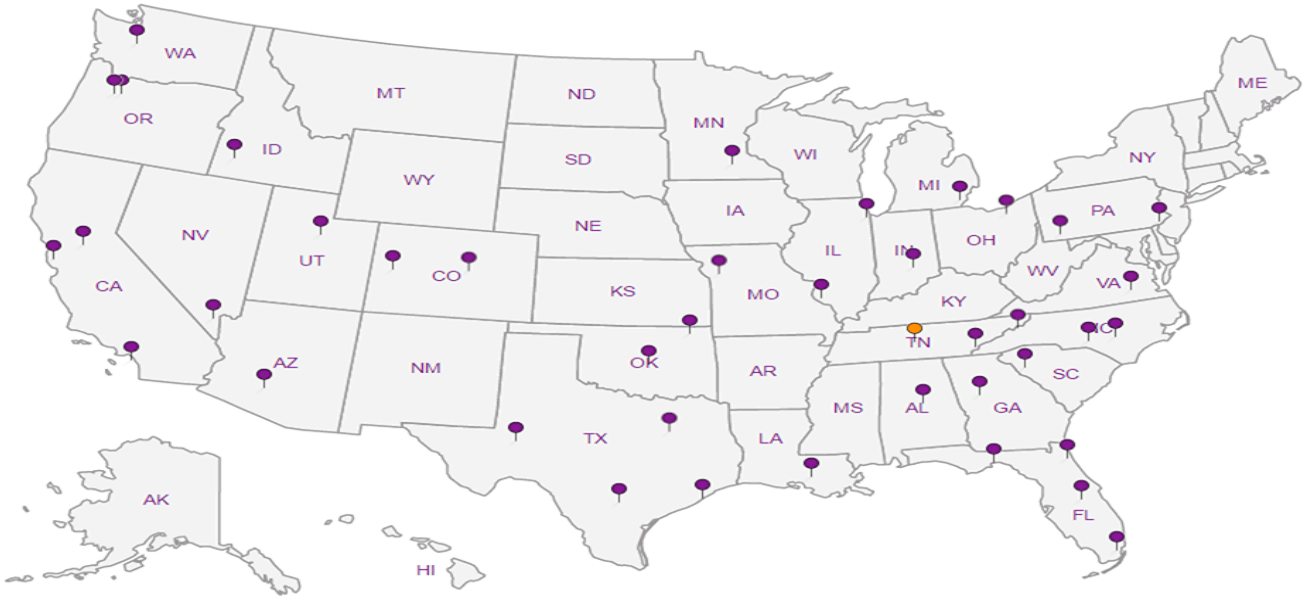
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Karsten Springstead

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW125-032217 | Grab | GW | 22.5 | 3-22-17 | 835 | 6 | | X | | | X | | | -01 |
| BB-8-032217 | Grab | GW | 35 | 3-22-17 | 1020 | 9 | X | | X | X | X | X | | -02 |
| MW113-032217 | Grab | GW | 75 | 3-22-17 | 1205 | 9 | X | | X | X | X | X | | -03 |
| MW115-032217 | Grab | GW | 40 | 3-22-17 | 1225 | 9 | X | | X | X | X | X | | -04 |
| MW112-032217 | Grab | GW | 70 | 3-22-17 | 1405 | 9 | X | | X | X | X | X | | -05 |
| GI2-032217 | Grab | GW | 9 | 3-22-17 | 1435 | 4 | | | | | X | | | -06 |
| TRIP BLANK-032217 | | GW | — | — | — | 1 | | | | | X | | | -07 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L897678
C235

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17 Gm
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7176 9011 7100

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 3-22-17 | 1530 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: (Yes) / No
HCL / MeoH
TBR

Temp: 2.2 °C Bottles Received: 46

Date: 3-23-17 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

# MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 22, 2017- Groundwater Samples

**LAB:** ESC Lab ID L897678

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Six (6) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, Seattle, Washington, on March 22, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897678. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897678 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*NWTPH-Gx Method:*
All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections are reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Low level acetone detections were reported in all associated samples. **All acetone results in associated samples are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*
A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs) and NWTPH-Gx:*
A trip blank was collected and analyzed. The target analytes were not detected in the trip blank at or above the RDL with the following discussion:

- A low level acetone detection was reported in the trip blank (at 3.84 µg/L). No action was taken other than to note that low level acetone detection was also reported in the

method blank (at 2.11 µg/L) and associated samples. Acetone detections in the associated samples are qualified as not detected (U) due to blank contamination.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD or MS/MSD results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) within the analytical batch. No action was taken in this case. Refer to LCS/LCSD results for precision data.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample BB-8-032217. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples, and on client sample BB-8-032217. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample MW112-032217. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) spike compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within and MS/MSD recoveries are within criteria for these compounds.

*NWTPH-Gx Method:*
LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.
*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.

*NWTPH-Gx Method:*
Matrix spike analysis was not performed on sample MW125-032217. The MS/MSD % Rs and RPD is acceptable and within laboratory control limit criteria for water samples.

*Method RSK-175:*
Matrix spike analysis was not performed for the dissolved gas analysis method. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on sample MW112-032217. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/30/2017 00:57 | WG963909 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *97.5* | | | *77.0-122* | | *03/30/2017 00:57* | WG963909 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 3.20 | B J | 1.05 | 25.0 | 1 | 03/28/2017 16:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.341 | J | 0.0933 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
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JC 4/18/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Tetrachloroethene | 0.285 | J | 0.199 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:29 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 16:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:29 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 16:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 16:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *98.6* | | | *80.0-120* | | *03/28/2017 16:29* | WG964116 |

Cp
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JC 4/18/17

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 254000 | | 2710 | 20000 | 1 | 03/25/2017 08:17 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 7870 | | 51.9 | 1000 | 1 | 03/23/2017 12:28 | WG963516 |
| Nitrate | 3170 | | 22.7 | 100 | 1 | 03/23/2017 12:28 | WG963516 |
| Sulfate | 41500 | | 77.4 | 5000 | 1 | 03/23/2017 12:28 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2250 | | 102 | 1000 | 1 | 03/27/2017 19:12 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 125 | | 15.0 | 100 | 1 | 03/27/2017 02:33 | WG963864 |
| Manganese | 70.5 | | 0.250 | 5.00 | 1 | 03/27/2017 02:33 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 0.412 J | J | 0.287 | 0.678 | 1 | 03/23/2017 15:16 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 15:16 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 15:16 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.52 U | BJ | 1.05 | 25.0 | 1 | 03/28/2017 16:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

JC 4/18/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| cis-1,2-Dichloroethene | 3.10 | | 0.0933 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Tetrachloroethene | 30.4 | | 0.199 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Trichloroethene | 4.95 | | 0.153 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 16:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 16:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 16:49 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 16:49* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 16:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/28/2017 16:49* | WG964116 |

JC 4/18/17

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 594000 | | 2710 | 20000 | 1 | 03/25/2017 10:48 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 65500 | | 51.9 | 1000 | 1 | 03/23/2017 12:54 | WG963516 |
| Nitrate | 29.5 | J J | 22.7 | 100 | 1 | 03/23/2017 12:54 | WG963516 |
| Sulfate | 55400 | | 77.4 | 5000 | 1 | 03/23/2017 12:54 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 27000 | | 102 | 1000 | 1 | 03/27/2017 19:35 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 7460 | | 15.0 | 100 | 1 | 03/27/2017 02:36 | WG963864 |
| Manganese | 757 | | 0.250 | 5.00 | 1 | 03/27/2017 02:36 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 3530 | | 2.87 | 6.78 | 10 | 03/27/2017 16:06 | WG964586 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 16:31 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 16:31 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.28 U | B J | 1.05 | 25.0 | 1 | 03/28/2017 17:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Benzene | 2.60 | | 0.0896 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloroethene | 10.7 | | 0.188 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| cis-1,2-Dichloroethene | 7280 | | 18.7 | 100 | 200 | 03/29/2017 17:55 | WG964116 |
| trans-1,2-Dichloroethene | 25.4 | | 0.152 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2-Dichloropropane | 0.240 | J | 0.190 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Trichloroethene | 27.1 | | 0.153 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:09 | WG964116 |
| Vinyl chloride | 63.5 | | 0.118 | 0.500 | 1 | 03/28/2017 17:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 17:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 17:09* | WG964116 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *03/29/2017 17:55* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 17:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.7* | | | *80.0-120* | | *03/28/2017 17:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:55* | WG964116 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 417000 | | 2710 | 20000 | 1 | 03/25/2017 10:55 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 28500 | | 51.9 | 1000 | 1 | 03/23/2017 13:19 | WG963516 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/23/2017 13:19 | WG963516 |
| Sulfate | 35900 | | 77.4 | 5000 | 1 | 03/23/2017 13:19 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7690 | | 102 | 1000 | 1 | 03/27/2017 19:51 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5690 | | 15.0 | 100 | 1 | 03/27/2017 02:39 | WG963864 |
| Manganese | 1320 | | 0.250 | 5.00 | 1 | 03/27/2017 02:39 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 215 | | 0.287 | 0.678 | 1 | 03/23/2017 17:21 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 17:21 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 17:21 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.67 U | BJ | 1.05 | 25.0 | 1 | 03/28/2017 17:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| cis-1,2-Dichloroethene | 0.643 | | 0.0933 | 0.500 | 1 | 03/29/2017 16:55 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:29 | WG964116 |
| Vinyl chloride | 15.7 | | 0.118 | 0.500 | 1 | 03/28/2017 17:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:29 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 16:55* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 17:29* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/28/2017 17:29* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/29/2017 16:55* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.7* | | | *80.0-120* | | *03/28/2017 17:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/29/2017 16:55* | WG964116 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 188000 | | 2710 | 20000 | 1 | 03/25/2017 08:52 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 10600 | | 51.9 | 1000 | 1 | 03/23/2017 13:58 | WG963516 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/23/2017 13:58 | WG963516 |
| Sulfate | 45200 | | 77.4 | 5000 | 1 | 03/23/2017 13:58 | WG963516 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1350 | | 102 | 1000 | 1 | 03/27/2017 20:08 | WG964268 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 238 | | 15.0 | 100 | 1 | 03/26/2017 22:51 | WG963864 |
| Manganese | 41.1 | | 0.250 | 5.00 | 1 | 03/26/2017 22:51 | WG963864 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 4.89 | | 0.287 | 0.678 | 1 | 03/23/2017 17:37 | WG963578 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/23/2017 17:37 | WG963578 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/23/2017 17:37 | WG963578 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.80 u | B J | 1.05 | 25.0 | 1 | 03/28/2017 17:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/29/2017 17:15 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 17:49 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 17:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 17:49 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/29/2017 17:15* | WG964116 |
| *(S) Toluene-d8* | *112* | | | *80.0-120* | | *03/28/2017 17:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/28/2017 17:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/29/2017 17:15* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *97.6* | | | *80.0-120* | | *03/28/2017 17:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:15* | WG964116 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 3.41 | B J | 1.05 | 25.0 | 1 | 03/28/2017 18:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Benzene | 0.298 | J | 0.0896 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloroethane | 0.583 | | 0.141 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloroethene | 2.23 | | 0.188 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| cis-1,2-Dichloroethene | 130 | | 0.0933 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,2-Dichloroethene | 2.85 | | 0.152 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Trichloroethene | 0.474 | J | 0.153 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:09 | WG964116 |
| Vinyl chloride | 41.9 | | 0.118 | 0.500 | 1 | 03/28/2017 18:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:09 | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 18:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/28/2017 18:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:09* | WG964116 |



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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 03/30/2017 02:26 | WG963909 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *98.2* | | | *77.0-122* | | *03/30/2017 02:26* | WG963909 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 3.84 | B J | 1.05 | 25.0 | 1 | 03/28/2017 13:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |

4/18/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 13:09 | WG964116 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 13:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 13:09 | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/28/2017 13:09* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 13:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.8* | | | *80.0-120* | | *03/28/2017 13:09* | WG964116 |

4/18/17

# ANALYTICAL REPORT

March 30, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L897952 |
| Samples Received: | 03/24/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW110-032317 L897952-01 GW

Collected by: C. DeBoer
Collected date/time: 03/23/17 10:55
Received date/time: 03/24/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 10:18 | 03/25/17 10:18 | AMC |
| Wet Chemistry by Method 9056A | WG963944 | 1 | 03/24/17 13:08 | 03/24/17 13:08 | SAM |
| Wet Chemistry by Method 9056A | WG964927 | 5 | 03/29/17 17:40 | 03/29/17 17:40 | KCF |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 18:19 | 03/28/17 18:19 | SJM |
| Metals (ICPMS) by Method 6020 | WG964085 | 1 | 03/29/17 17:12 | 03/29/17 21:14 | VSS |
| Volatile Organic Compounds (GC) by Method RSK175 | WG964587 | 1 | 03/28/17 01:15 | 03/28/17 01:15 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 18:29 | 03/28/17 18:29 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 50 | 03/29/17 18:15 | 03/29/17 18:15 | BMB |

## MW103-032317 L897952-02 GW

Collected by: C. DeBoer
Collected date/time: 03/23/17 12:45
Received date/time: 03/24/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG963928 | 1 | 03/25/17 10:24 | 03/25/17 10:24 | AMC |
| Wet Chemistry by Method 9056A | WG963944 | 1 | 03/24/17 13:39 | 03/24/17 13:39 | SAM |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 18:38 | 03/28/17 18:38 | SJM |
| Metals (ICPMS) by Method 6020 | WG964085 | 1 | 03/29/17 17:12 | 03/29/17 22:07 | VSS |
| Volatile Organic Compounds (GC) by Method RSK175 | WG964587 | 1 | 03/28/17 01:48 | 03/28/17 01:48 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 18:49 | 03/28/17 18:49 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 10 | 03/29/17 18:35 | 03/29/17 18:35 | BMB |

## MW111-032317 L897952-03 GW

Collected by: C. DeBoer
Collected date/time: 03/23/17 12:55
Received date/time: 03/24/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964048 | 1 | 03/25/17 13:47 | 03/25/17 13:47 | AMC |
| Wet Chemistry by Method 9056A | WG963944 | 1 | 03/24/17 14:10 | 03/24/17 14:10 | SAM |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 18:56 | 03/28/17 18:56 | SJM |
| Metals (ICPMS) by Method 6020 | WG964085 | 1 | 03/29/17 17:12 | 03/29/17 22:11 | VSS |
| Volatile Organic Compounds (GC) by Method RSK175 | WG964587 | 1 | 03/28/17 02:22 | 03/28/17 02:22 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/28/17 19:09 | 03/28/17 19:09 | JHH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964116 | 1 | 03/29/17 17:35 | 03/29/17 17:35 | BMB |

## R-MW5-032317 L897952-04 GW

Collected by: C. DeBoer
Collected date/time: 03/23/17 14:35
Received date/time: 03/24/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964048 | 1 | 03/25/17 14:04 | 03/25/17 14:04 | AMC |
| Wet Chemistry by Method 9056A | WG963944 | 1 | 03/24/17 14:41 | 03/24/17 14:41 | SAM |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 19:09 | 03/28/17 19:09 | SJM |
| Metals (ICPMS) by Method 6020 | WG964085 | 1 | 03/29/17 17:12 | 03/29/17 22:24 | VSS |
| Volatile Organic Compounds (GC) by Method RSK175 | WG964587 | 1 | 03/28/17 02:38 | 03/28/17 02:38 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964125 | 1 | 03/27/17 20:48 | 03/27/17 20:48 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964125 | 1 | 03/30/17 01:43 | 03/30/17 01:43 | JAH |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 425000 | | 2710 | 20000 | 1 | 03/25/2017 10:18 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 36200 | | 51.9 | 1000 | 1 | 03/24/2017 13:08 | WG963944 |
| Nitrate | 652 | | 22.7 | 100 | 1 | 03/24/2017 13:08 | WG963944 |
| Sulfate | 108000 | | 387 | 25000 | 5 | 03/29/2017 17:40 | WG964927 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7980 | | 102 | 1000 | 1 | 03/28/2017 18:19 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 94.8 | J | 15.0 | 100 | 1 | 03/29/2017 21:14 | WG964085 |
| Manganese | 3900 | V | 0.250 | 5.00 | 1 | 03/29/2017 21:14 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 125 | | 0.287 | 0.678 | 1 | 03/28/2017 01:15 | WG964587 |
| Ethane | 1.21 | J | 0.296 | 1.29 | 1 | 03/28/2017 01:15 | WG964587 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/28/2017 01:15 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.62 | B J | 1.05 | 25.0 | 1 | 03/28/2017 18:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Benzene | 0.330 | J | 0.0896 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloroethene | 5.23 | | 0.188 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| cis-1,2-Dichloroethene | 644 | | 4.66 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| trans-1,2-Dichloroethene | 4.72 | | 0.152 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Tetrachloroethene | 1070 | | 9.95 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Trichloroethene | 389 | | 7.65 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Vinyl chloride | 1.45 | | 0.118 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:29 | WG964116 |
| *(S) Toluene-d8* | *98.4* | | | *80.0-120* | | *03/28/2017 18:29* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 18:15* | WG964116 |
| *(S) Dibromofluoromethane* | *99.5* | | | *76.0-123* | | *03/29/2017 18:15* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 18:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *97.8* | | | *80.0-120* | | *03/28/2017 18:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 18:15* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 337000 | | 2710 | 20000 | 1 | 03/25/2017 10:24 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 48400 | | 51.9 | 1000 | 1 | 03/24/2017 13:39 | WG963944 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/24/2017 13:39 | WG963944 |
| Sulfate | 36300 | | 77.4 | 5000 | 1 | 03/24/2017 13:39 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1970 | | 102 | 1000 | 1 | 03/28/2017 18:38 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 1680 | | 15.0 | 100 | 1 | 03/29/2017 22:07 | WG964085 |
| Manganese | 1090 | | 0.250 | 5.00 | 1 | 03/29/2017 22:07 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 433 | | 0.287 | 0.678 | 1 | 03/28/2017 01:48 | WG964587 |
| Ethane | 82.5 | | 0.296 | 1.29 | 1 | 03/28/2017 01:48 | WG964587 |
| Ethene | 34.1 | | 0.422 | 1.27 | 1 | 03/28/2017 01:48 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.87 | B J | 1.05 | 25.0 | 1 | 03/28/2017 18:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloroethane | 0.301 | J | 0.141 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloroethane | 0.195 | J | 0.114 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloroethene | 3.69 | | 0.188 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| cis-1,2-Dichloroethene | 240 | | 0.933 | 5.00 | 10 | 03/29/2017 18:35 | WG964116 |
| trans-1,2-Dichloroethene | 0.405 | J | 0.152 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Tetrachloroethene | U | | 1.99 | 5.00 | 10 | 03/29/2017 18:35 | WG964116 |
| Toluene | 0.464 | J | 0.412 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Trichloroethene | 23.1 | | 0.153 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Vinyl chloride | 157 | | 0.118 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 18:35* | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 18:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/29/2017 18:35* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/28/2017 18:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 18:35* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 179000 | | 2710 | 20000 | 1 | 03/25/2017 13:47 | WG964048 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22900 | | 51.9 | 1000 | 1 | 03/24/2017 14:10 | WG963944 |
| Nitrate | 68.0 | J | 22.7 | 100 | 1 | 03/24/2017 14:10 | WG963944 |
| Sulfate | 8250 | | 77.4 | 5000 | 1 | 03/24/2017 14:10 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 918 | J | 102 | 1000 | 1 | 03/28/2017 18:56 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 391 | | 15.0 | 100 | 1 | 03/29/2017 22:11 | WG964085 |
| Manganese | 151 | | 0.250 | 5.00 | 1 | 03/29/2017 22:11 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 136 | | 0.287 | 0.678 | 1 | 03/28/2017 02:22 | WG964587 |
| Ethane | 5.74 | | 0.296 | 1.29 | 1 | 03/28/2017 02:22 | WG964587 |
| Ethene | 4.17 | | 0.422 | 1.27 | 1 | 03/28/2017 02:22 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.09 | B J | 1.05 | 25.0 | 1 | 03/28/2017 19:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | J6 | 0.877 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| cis-1,2-Dichloroethene | 1.40 | | 0.0933 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Hexane | 0.306 | J | 0.305 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Vinyl chloride | 5.22 | | 0.118 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 19:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 19:09* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 17:35* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 19:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 17:35* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *03/28/2017 19:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:35* | WG964116 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 183000 | | 2710 | 20000 | 1 | 03/25/2017 14:04 | WG964048 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 32200 | | 51.9 | 1000 | 1 | 03/24/2017 14:41 | WG963944 |
| Nitrate | 54.9 | J | 22.7 | 100 | 1 | 03/24/2017 14:41 | WG963944 |
| Sulfate | 33000 | | 77.4 | 5000 | 1 | 03/24/2017 14:41 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 3940 | | 102 | 1000 | 1 | 03/28/2017 19:09 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 2940 | | 15.0 | 100 | 1 | 03/29/2017 22:24 | WG964085 |
| Manganese | 4240 | | 0.250 | 5.00 | 1 | 03/29/2017 22:24 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 118 | | 0.287 | 0.678 | 1 | 03/28/2017 02:38 | WG964587 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/28/2017 02:38 | WG964587 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/28/2017 02:38 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 03/27/2017 20:48 | WG964125 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/30/2017 01:43 | WG964125 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Tetrachloroethene | 0.338 | J | 0.199 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Trichloroethene | 0.186 | J | 0.153 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/27/2017 20:48 | WG964125 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *03/27/2017 20:48* | WG964125 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *03/30/2017 01:43* | WG964125 |
| *(S) Dibromofluoromethane* | *96.9* | | | *76.0-123* | | *03/30/2017 01:43* | WG964125 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/27/2017 20:48* | WG964125 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/30/2017 01:43* | WG964125 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/27/2017 20:48* | WG964125 |

## Method Blank (MB)

(MB) R3205870-1 03/25/17 08:09

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3130 | J | 2710 | 20000 |

## L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/25/17 08:17 • (DUP) R3205870-8 03/25/17 08:26

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 254000 | 260000 | 1 | 2.00 | | 20 |

## L897906-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-06 03/25/17 11:15 • (DUP) R3205870-11 03/25/17 11:21

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 671000 | 677000 | 1 | 1.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205870-9 03/25/17 09:20 • (LCSD) R3205870-10 03/25/17 10:37

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 94200 | 105000 | 94.0 | 105 | 85.0-115 | | | 10.0 | 20 |

## Method Blank (MB)

(MB) R3205905-1 03/25/17 12:52

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity | U | | 2710 | 20000 |

## L897999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897999-01 03/25/17 12:59 • (DUP) R3205905-2 03/25/17 13:06

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | ND | ND | 1 | 1.00 | J | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205905-3 03/25/17 13:55 • (LCSD) R3205905-4 03/25/17 15:21

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Alkalinity | 100000 | 101000 | 111000 | 101 | 111 | 85.0-115 | | | 10.0 | 20 |

## Method Blank (MB)

(MB) R3205857-1 03/24/17 06:40

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L897923-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897923-01 03/24/17 11:06 • (DUP) R3205857-4 03/24/17 11:21

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Nitrate | ND | 96.0 | 1 | 0 | | 15 |
| Sulfate | 9650 | 9380 | 1 | 3 | | 15 |

## L897979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897979-01 03/24/17 16:29 • (DUP) R3205857-6 03/24/17 16:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Nitrate | U | 0.000 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205857-2 03/24/17 06:55 • (LCSD) R3205857-3 03/24/17 07:11

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 38800 | 38800 | 97 | 97 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8050 | 8040 | 101 | 100 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 37600 | 37800 | 94 | 94 | 80-120 | | | 0 | 15 |

## L897923-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L897923-02 03/24/17 11:36 • (MS) R3205857-5 03/24/17 11:52

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 4140 | 55000 | 102 | 1 | 80-120 | |
| Nitrate | 5000 | 380 | 5480 | 102 | 1 | 80-120 | |
| Sulfate | 50000 | 12700 | 61100 | 97 | 1 | 80-120 | |

## L897979-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897979-04 03/24/17 18:32 • (MS) R3205857-7 03/24/17 18:48 • (MSD) R3205857-8 03/24/17 19:03

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate | 5000 | 103 | 5550 | 5390 | 109 | 106 | 1 | 80-120 | | | 3 | 15 |

## Method Blank (MB)

(MB) R3206903-1 03/29/17 06:00

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Sulfate | U | | 77.4 | 5000 |

## L897906-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-03 03/29/17 12:08 • (DUP) R3206903-4 03/29/17 12:27

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Sulfate | U | 0.000 | 1 | 0 | | 15 |

## L898561-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898561-01 03/29/17 18:54 • (DUP) R3206903-6 03/29/17 19:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Sulfate | 24100 | 24400 | 1 | 1 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206903-2 03/29/17 06:18 • (LCSD) R3206903-3 03/29/17 06:36

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 40000 | 40400 | 40000 | 101 | 100 | 80-120 | | | 1 | 15 |

## L897906-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L897906-06 03/29/17 12:45 • (MS) R3206903-5 03/29/17 13:04

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Sulfate | 50000 | 31900 | 79700 | 96 | 1 | 80-120 | |

## Method Blank (MB)

(MB) R3206515-1 03/28/17 10:04

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L897786-16 Original Sample (OS) • Duplicate (DUP)

(OS) L897786-16 03/28/17 11:46 • (DUP) R3206515-3 03/28/17 12:01

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 1090 | 1120 | 1 | 3 | | 20 |

## L897952-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897952-04 03/28/17 19:09 • (DUP) R3206515-7 03/28/17 19:22

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 3940 | 3940 | 1 | 0 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206515-2 03/28/17 11:07 • (LCSD) R3206515-4 03/28/17 13:42

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 75000 | 73200 | 73300 | 98 | 98 | 85-115 | | | 0 | 20 |

## L897833-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897833-01 03/28/17 15:56 • (MS) R3206515-5 03/28/17 16:14 • (MSD) R3206515-6 03/28/17 16:32

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 50000 | 2170 | 52800 | 53600 | 101 | 103 | 1 | 80-120 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3206854-1 03/29/17 21:03

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206854-2 03/29/17 21:07 • (LCSD) R3206854-3 03/29/17 21:11

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5220 | 5110 | 104 | 102 | 80-120 | | | 2 | 20 |
| Manganese | 50.0 | 50.6 | 49.3 | 101 | 99 | 80-120 | | | 3 | 20 |

## L897952-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-01 03/29/17 21:14 • (MS) R3206854-5 03/29/17 21:21 • (MSD) R3206854-6 03/29/17 21:25

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 94.8 | 5140 | 5140 | 101 | 101 | 1 | 75-125 | | | 0 | 20 |
| Manganese | 50.0 | 3900 | 3910 | 3950 | 34 | 108 | 1 | 75-125 | V | | 1 | 20 |

## Method Blank (MB)

(MB) R3206399-1 03/27/17 22:45

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L897906-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-04 03/28/17 00:42 • (DUP) R3206399-2 03/28/17 02:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 308 | 339 | 1 | 9.54 | | 20 |
| Ethane | U | 0.000 | 1 | 0.000 | | 20 |
| Ethene | U | 0.000 | 1 | 0.000 | | 20 |

## L897999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897999-01 03/28/17 03:28 • (DUP) R3206399-3 03/28/17 05:25

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206399-6 03/28/17 08:58 • (LCSD) R3206399-7 03/28/17 09:15

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 64.8 | 66.7 | 95.6 | 98.3 | 70.0-130 | | | 2.79 | 20 |
| Ethane | 129 | 115 | 121 | 89.2 | 94.0 | 70.0-130 | | | 5.19 | 20 |
| Ethene | 127 | 113 | 120 | 89.1 | 94.6 | 70.0-130 | | | 6.00 | 20 |

## L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/28/17 00:42 • (MS) R3206399-4 03/28/17 05:41 • (MSD) R3206399-5 03/28/17 08:42

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Methane | 67.8 | 308 | 355 | 449 | 69.3 | 207 | 1 | 70.0-130 | V | J3 V | 23.3 | 20 |
| Ethane | 129 | U | 115 | 112 | 88.9 | 86.9 | 1 | 70.0-130 | | | 2.37 | 20 |

## L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/28/17 00:42 • (MS) R3206399-4 03/28/17 05:41 • (MSD) R3206399-5 03/28/17 08:42

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethene | 127 | U | 113 | 109 | 88.9 | 85.6 | 1 | 70.0-130 | | | 3.78 | 20 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | 2.11 | J | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.204 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | 0.255 | J | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 153 | 165 | 123 | 132 | 10.0-160 | | | 7.11 | 23 |
| Acrylonitrile | 125 | 123 | 131 | 98.5 | 105 | 60.0-142 | | | 6.50 | 20 |
| Benzene | 25.0 | 20.2 | 21.6 | 81.0 | 86.4 | 69.0-123 | | | 6.50 | 20 |
| Bromobenzene | 25.0 | 20.3 | 22.5 | 81.4 | 90.2 | 79.0-120 | | | 10.3 | 20 |
| Bromodichloromethane | 25.0 | 22.6 | 24.1 | 90.6 | 96.2 | 76.0-120 | | | 6.03 | 20 |
| Bromochloromethane | 25.0 | 20.2 | 21.3 | 80.7 | 85.3 | 76.0-122 | | | 5.62 | 20 |
| Bromoform | 25.0 | 19.9 | 21.6 | 79.5 | 86.4 | 67.0-132 | | | 8.22 | 20 |
| Bromomethane | 25.0 | 24.0 | 24.1 | 95.8 | 96.5 | 18.0-160 | | | 0.760 | 20 |
| n-Butylbenzene | 25.0 | 22.0 | 23.5 | 87.9 | 94.0 | 72.0-126 | | | 6.66 | 20 |
| sec-Butylbenzene | 25.0 | 20.0 | 21.7 | 80.0 | 86.7 | 74.0-121 | | | 8.07 | 20 |
| tert-Butylbenzene | 25.0 | 20.0 | 21.9 | 80.1 | 87.7 | 75.0-122 | | | 9.10 | 20 |
| Carbon disulfide | 25.0 | 17.9 | 18.8 | 71.8 | 75.1 | 55.0-127 | | | 4.53 | 20 |
| Carbon tetrachloride | 25.0 | 21.0 | 22.6 | 84.0 | 90.4 | 63.0-122 | | | 7.38 | 20 |
| Chlorobenzene | 25.0 | 19.7 | 21.5 | 78.7 | 86.1 | 79.0-121 | J4 | | 9.01 | 20 |
| Chlorodibromomethane | 25.0 | 21.1 | 23.0 | 84.3 | 92.2 | 75.0-125 | | | 8.84 | 20 |
| Chloroethane | 25.0 | 24.6 | 25.8 | 98.5 | 103 | 47.0-152 | | | 4.82 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 137 | 147 | 109 | 118 | 10.0-160 | | | 7.24 | 22 |
| Chloroform | 25.0 | 21.7 | 23.0 | 86.9 | 92.2 | 72.0-121 | | | 5.95 | 20 |
| Chloromethane | 25.0 | 24.6 | 24.4 | 98.2 | 97.7 | 48.0-139 | | | 0.560 | 20 |
| 2-Chlorotoluene | 25.0 | 20.2 | 22.4 | 80.9 | 89.5 | 74.0-122 | | | 10.1 | 20 |
| 4-Chlorotoluene | 25.0 | 20.5 | 22.6 | 81.8 | 90.4 | 79.0-120 | | | 9.96 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 18.2 | 19.3 | 73.0 | 77.4 | 64.0-127 | | | 5.86 | 20 |
| 1,2-Dibromoethane | 25.0 | 20.1 | 21.8 | 80.5 | 87.2 | 77.0-123 | | | 7.94 | 20 |
| Dibromomethane | 25.0 | 22.3 | 23.4 | 89.3 | 93.6 | 78.0-120 | | | 4.76 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 20.6 | 22.1 | 82.3 | 88.2 | 80.0-120 | | | 6.90 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 19.3 | 20.9 | 77.1 | 83.5 | 72.0-123 | | | 7.88 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 20.1 | 22.0 | 80.3 | 88.1 | 77.0-120 | | | 9.24 | 20 |
| Dichlorodifluoromethane | 25.0 | 27.2 | 24.6 | 109 | 98.2 | 49.0-155 | | | 10.2 | 20 |
| 1,1-Dichloroethane | 25.0 | 22.4 | 23.7 | 89.4 | 94.8 | 70.0-126 | | | 5.84 | 20 |
| 1,2-Dichloroethane | 25.0 | 23.9 | 25.1 | 95.7 | 100 | 67.0-126 | | | 4.63 | 20 |
| 1,1-Dichloroethene | 25.0 | 21.9 | 22.7 | 87.6 | 90.8 | 64.0-129 | | | 3.64 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 21.0 | 22.4 | 83.8 | 89.6 | 73.0-120 | | | 6.65 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 19.7 | 20.6 | 79.0 | 82.3 | 71.0-121 | | | 4.15 | 20 |
| 1,2-Dichloropropane | 25.0 | 22.9 | 25.3 | 91.8 | 101 | 75.0-125 | | | 9.66 | 20 |
| 1,1-Dichloropropene | 25.0 | 21.0 | 22.7 | 84.1 | 90.6 | 71.0-129 | | | 7.53 | 20 |
| 1,3-Dichloropropane | 25.0 | 21.0 | 22.4 | 84.0 | 89.8 | 80.0-121 | | | 6.70 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 25.6 | 97.1 | 102 | 79.0-123 | | | 5.13 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 23.5 | 25.4 | 94.1 | 102 | 74.0-127 | | | 7.77 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.7 | 21.7 | 82.6 | 86.7 | 55.0-134 | | | 4.88 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.5 | 24.4 | 89.9 | 97.7 | 60.0-125 | | | 8.39 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 24.5 | 26.8 | 97.9 | 107 | 59.0-133 | | | 9.12 | 20 |
| Ethylbenzene | 25.0 | 19.1 | 20.8 | 76.3 | 83.4 | 77.0-120 | J4 | | 8.88 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 19.7 | 21.5 | 78.7 | 86.0 | 64.0-131 | | | 8.79 | 20 |
| 2-Hexanone | 125 | 129 | 138 | 103 | 110 | 58.0-147 | | | 6.93 | 20 |
| n-Hexane | 25.0 | 18.1 | 19.2 | 72.5 | 76.7 | 56.0-124 | | | 5.68 | 20 |
| Iodomethane | 125 | 124 | 130 | 99.6 | 104 | 57.0-140 | | | 4.14 | 20 |
| Isopropylbenzene | 25.0 | 19.9 | 22.1 | 79.8 | 88.2 | 75.0-120 | | | 10.1 | 20 |
| p-Isopropyltoluene | 25.0 | 20.3 | 22.0 | 81.2 | 88.0 | 74.0-126 | | | 8.10 | 20 |
| 2-Butanone (MEK) | 125 | 147 | 155 | 117 | 124 | 37.0-158 | | | 5.35 | 20 |
| Methylene Chloride | 25.0 | 19.4 | 20.7 | 77.4 | 82.9 | 66.0-121 | | | 6.86 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 150 | 159 | 120 | 127 | 59.0-143 | | | 5.43 | 20 |
| Methyl tert-butyl ether | 25.0 | 23.6 | 25.4 | 94.5 | 101 | 64.0-123 | | | 7.18 | 20 |
| Naphthalene | 25.0 | 18.2 | 19.8 | 72.8 | 79.3 | 62.0-128 | | | 8.60 | 20 |
| n-Propylbenzene | 25.0 | 20.3 | 22.4 | 81.2 | 89.4 | 79.0-120 | | | 9.70 | 20 |
| Styrene | 25.0 | 21.2 | 23.1 | 84.7 | 92.6 | 78.0-124 | | | 8.85 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 20.8 | 22.5 | 83.0 | 90.0 | 75.0-122 | | | 8.03 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.1 | 22.0 | 80.6 | 87.9 | 71.0-122 | | | 8.68 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 23.5 | 24.9 | 94.2 | 99.7 | 61.0-136 | | | 5.67 | 20 |
| Tetrachloroethene | 25.0 | 19.0 | 20.7 | 76.1 | 82.8 | 70.0-127 | | | 8.45 | 20 |
| Toluene | 25.0 | 20.2 | 21.4 | 80.8 | 85.7 | 77.0-120 | | | 5.88 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 17.2 | 19.0 | 68.7 | 75.9 | 61.0-133 | | | 9.91 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 18.9 | 19.9 | 75.7 | 79.7 | 69.0-129 | | | 5.10 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 22.1 | 23.7 | 88.2 | 94.9 | 68.0-122 | | | 7.33 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 19.8 | 21.4 | 79.4 | 85.8 | 78.0-120 | | | 7.72 | 20 |
| Trichloroethene | 25.0 | 20.6 | 21.5 | 82.6 | 86.0 | 78.0-120 | | | 4.03 | 20 |
| Trichlorofluoromethane | 25.0 | 26.2 | 26.7 | 105 | 107 | 56.0-137 | | | 1.58 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 20.6 | 22.2 | 82.3 | 88.9 | 72.0-124 | | | 7.68 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 20.3 | 22.1 | 81.3 | 88.4 | 75.0-120 | | | 8.40 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 21.1 | 22.7 | 84.3 | 91.0 | 75.0-120 | | | 7.58 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 20.1 | 21.9 | 80.4 | 87.5 | 75.0-120 | | | 8.49 | 20 |
| Vinyl acetate | 125 | 139 | 149 | 111 | 119 | 46.0-160 | | | 6.86 | 20 |
| Vinyl chloride | 25.0 | 27.2 | 26.7 | 109 | 107 | 64.0-133 | | | 2.02 | 20 |
| Xylenes, Total | 75.0 | 56.9 | 62.9 | 75.9 | 83.9 | 77.0-120 | J4 | | 10.0 | 20 |
| *(S) Toluene-d8* | | | | *110* | *110* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *104* | *104* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *97.6* | *99.9* | *80.0-120* | | | | |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 3.09 | 86.2 | 89.9 | 66.5 | 69.5 | 1 | 10.0-139 | | | 4.23 | 25 |
| Acrylonitrile | 125 | U | 153 | 153 | 122 | 122 | 1 | 46.0-159 | | | 0.0900 | 23 |
| Benzene | 25.0 | U | 24.1 | 23.1 | 96.4 | 92.3 | 1 | 34.0-147 | | | 4.35 | 20 |
| Bromobenzene | 25.0 | U | 25.0 | 23.7 | 100 | 94.6 | 1 | 51.0-137 | | | 5.55 | 20 |
| Bromodichloromethane | 25.0 | U | 27.2 | 26.1 | 109 | 105 | 1 | 52.0-135 | | | 3.82 | 20 |
| Bromochloromethane | 25.0 | U | 25.7 | 23.2 | 103 | 93.0 | 1 | 53.0-138 | | | 10.0 | 20 |
| Bromoform | 25.0 | U | 26.0 | 25.6 | 104 | 102 | 1 | 50.0-146 | | | 1.53 | 20 |
| Bromomethane | 25.0 | U | 26.4 | 24.1 | 106 | 96.3 | 1 | 10.0-160 | | | 9.34 | 23 |
| n-Butylbenzene | 25.0 | U | 25.5 | 25.5 | 102 | 102 | 1 | 50.0-144 | | | 0.0200 | 20 |
| sec-Butylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.4 | 1 | 48.0-143 | | | 3.92 | 20 |
| tert-Butylbenzene | 25.0 | U | 24.3 | 23.4 | 97.1 | 93.7 | 1 | 50.0-142 | | | 3.54 | 20 |
| Carbon disulfide | 25.0 | U | 20.2 | 18.6 | 80.7 | 74.5 | 1 | 10.0-147 | | | 8.03 | 20 |
| Carbon tetrachloride | 25.0 | U | 25.5 | 24.5 | 102 | 97.9 | 1 | 41.0-138 | | | 4.30 | 20 |
| Chlorobenzene | 25.0 | U | 23.9 | 22.5 | 95.4 | 89.9 | 1 | 52.0-141 | | | 5.93 | 20 |
| Chlorodibromomethane | 25.0 | U | 25.8 | 24.8 | 103 | 99.2 | 1 | 54.0-142 | | | 3.91 | 20 |
| Chloroethane | 25.0 | U | 27.7 | 26.2 | 111 | 105 | 1 | 23.0-160 | | | 5.47 | 20 |
| 2-Chloroethyl vinyl ether | 125 | U | ND | ND | 0.000 | 0.000 | 1 | 10.0-160 | J6 | J6 | 0.000 | 40 |
| Chloroform | 25.0 | U | 26.6 | 24.6 | 106 | 98.3 | 1 | 50.0-139 | | | 7.76 | 20 |
| Chloromethane | 25.0 | U | 27.2 | 25.5 | 109 | 102 | 1 | 14.0-151 | | | 6.48 | 20 |
| 2-Chlorotoluene | 25.0 | U | 24.5 | 23.4 | 97.8 | 93.7 | 1 | 48.0-142 | | | 4.27 | 20 |
| 4-Chlorotoluene | 25.0 | U | 24.5 | 23.2 | 98.0 | 92.7 | 1 | 52.0-139 | | | 5.61 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | U | 23.4 | 23.9 | 93.5 | 95.4 | 1 | 49.0-144 | | | 1.99 | 24 |
| 1,2-Dibromoethane | 25.0 | U | 24.3 | 23.6 | 97.3 | 94.2 | 1 | 54.0-140 | | | 3.22 | 20 |
| Dibromomethane | 25.0 | U | 26.1 | 25.7 | 104 | 103 | 1 | 53.0-138 | | | 1.67 | 20 |
| 1,2-Dichlorobenzene | 25.0 | U | 24.2 | 24.0 | 96.9 | 95.9 | 1 | 56.0-139 | | | 1.05 | 20 |
| 1,3-Dichlorobenzene | 25.0 | U | 23.4 | 22.7 | 93.7 | 90.9 | 1 | 50.0-141 | | | 3.01 | 20 |
| 1,4-Dichlorobenzene | 25.0 | U | 23.9 | 23.2 | 95.5 | 92.9 | 1 | 53.0-136 | | | 2.73 | 20 |
| Dichlorodifluoromethane | 25.0 | U | 30.3 | 28.2 | 121 | 113 | 1 | 20.0-160 | | | 7.15 | 21 |
| 1,1-Dichloroethane | 25.0 | U | 27.3 | 25.4 | 109 | 101 | 1 | 47.0-143 | | | 7.40 | 20 |
| 1,2-Dichloroethane | 25.0 | U | 28.7 | 28.0 | 115 | 112 | 1 | 47.0-141 | | | 2.66 | 20 |
| 1,1-Dichloroethene | 25.0 | U | 26.2 | 25.1 | 105 | 100 | 1 | 31.0-148 | | | 4.37 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 2.63 | 28.1 | 25.6 | 102 | 91.8 | 1 | 43.0-142 | | | 9.27 | 20 |
| trans-1,2-Dichloroethene | 25.0 | U | 23.6 | 21.6 | 94.3 | 86.4 | 1 | 36.0-141 | | | 8.76 | 20 |
| 1,2-Dichloropropane | 25.0 | U | 27.7 | 26.8 | 111 | 107 | 1 | 51.0-141 | | | 3.38 | 20 |
| 1,1-Dichloropropene | 25.0 | U | 24.4 | 22.9 | 97.6 | 91.4 | 1 | 42.0-146 | | | 6.48 | 20 |
| 1,3-Dichloropropane | 25.0 | U | 25.3 | 24.6 | 101 | 98.3 | 1 | 58.0-139 | | | 2.86 | 20 |
| cis-1,3-Dichloropropene | 25.0 | U | 25.9 | 25.3 | 104 | 101 | 1 | 53.0-139 | | | 2.63 | 20 |
| trans-1,3-Dichloropropene | 25.0 | U | 27.4 | 26.6 | 110 | 106 | 1 | 51.0-143 | | | 3.10 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | U | 22.4 | 21.0 | 89.5 | 84.1 | 1 | 40.0-150 | | | 6.21 | 21 |
| 2,2-Dichloropropane | 25.0 | U | 27.8 | 25.5 | 111 | 102 | 1 | 43.0-139 | | | 8.81 | 20 |

## L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | U | 31.4 | 29.8 | 126 | 119 | 1 | 44.0-144 | | | 5.01 | 20 |
| Ethylbenzene | 25.0 | U | 23.2 | 22.1 | 92.8 | 88.2 | 1 | 42.0-147 | | | 5.08 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | U | 23.4 | 24.0 | 93.5 | 96.1 | 1 | 44.0-146 | | | 2.80 | 21 |
| 2-Hexanone | 125 | U | 119 | 124 | 94.8 | 98.9 | 1 | 36.0-145 | | | 4.16 | 23 |
| n-Hexane | 25.0 | 0.306 | 20.9 | 20.2 | 82.3 | 79.5 | 1 | 13.0-145 | | | 3.41 | 20 |
| Iodomethane | 125 | U | 148 | 135 | 118 | 108 | 1 | 30.0-151 | | | 9.18 | 20 |
| Isopropylbenzene | 25.0 | U | 24.3 | 23.3 | 97.1 | 93.3 | 1 | 48.0-141 | | | 3.96 | 20 |
| p-Isopropyltoluene | 25.0 | U | 24.1 | 23.4 | 96.4 | 93.5 | 1 | 49.0-146 | | | 3.02 | 20 |
| 2-Butanone (MEK) | 125 | U | 115 | 122 | 92.2 | 97.3 | 1 | 12.0-149 | | | 5.41 | 24 |
| Methylene Chloride | 25.0 | U | 24.2 | 22.6 | 96.7 | 90.6 | 1 | 42.0-135 | | | 6.50 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | U | 161 | 168 | 129 | 134 | 1 | 44.0-160 | | | 3.97 | 22 |
| Methyl tert-butyl ether | 25.0 | U | 30.1 | 28.4 | 120 | 114 | 1 | 42.0-142 | | | 5.67 | 20 |
| Naphthalene | 25.0 | U | 20.9 | 23.3 | 83.5 | 93.4 | 1 | 42.0-146 | | | 11.2 | 24 |
| n-Propylbenzene | 25.0 | U | 24.6 | 23.4 | 98.5 | 93.5 | 1 | 47.0-144 | | | 5.12 | 20 |
| Styrene | 25.0 | U | 25.2 | 23.3 | 101 | 93.2 | 1 | 47.0-147 | | | 7.65 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | U | 25.6 | 24.5 | 102 | 98.0 | 1 | 52.0-140 | | | 4.18 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | U | 25.5 | 25.9 | 102 | 104 | 1 | 46.0-149 | | | 1.39 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | U | 28.6 | 26.8 | 114 | 107 | 1 | 40.0-151 | | | 6.40 | 21 |
| Tetrachloroethene | 25.0 | 0.566 | 23.5 | 21.8 | 91.9 | 84.9 | 1 | 38.0-147 | | | 7.73 | 20 |
| Toluene | 25.0 | U | 24.2 | 22.7 | 96.6 | 90.8 | 1 | 42.0-141 | | | 6.21 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | U | 19.3 | 21.2 | 77.2 | 84.7 | 1 | 45.0-145 | | | 9.27 | 22 |
| 1,2,4-Trichlorobenzene | 25.0 | U | 20.9 | 21.7 | 83.8 | 86.7 | 1 | 49.0-147 | | | 3.51 | 21 |
| 1,1,1-Trichloroethane | 25.0 | U | 27.0 | 25.4 | 108 | 102 | 1 | 46.0-140 | | | 5.94 | 20 |
| 1,1,2-Trichloroethane | 25.0 | U | 24.2 | 23.8 | 97.0 | 95.3 | 1 | 54.0-139 | | | 1.80 | 20 |
| Trichloroethene | 25.0 | 0.355 | 24.4 | 23.3 | 96.4 | 91.9 | 1 | 32.0-156 | | | 4.69 | 20 |
| Trichlorofluoromethane | 25.0 | U | 30.6 | 28.3 | 122 | 113 | 1 | 32.0-152 | | | 7.70 | 20 |
| 1,2,3-Trichloropropane | 25.0 | U | 25.8 | 25.6 | 103 | 102 | 1 | 54.0-143 | | | 0.930 | 21 |
| 1,2,4-Trimethylbenzene | 25.0 | U | 23.9 | 23.0 | 95.5 | 92.0 | 1 | 41.0-146 | | | 3.76 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | U | 24.5 | 24.4 | 97.9 | 97.4 | 1 | 48.0-138 | | | 0.420 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | U | 24.2 | 23.2 | 96.8 | 92.6 | 1 | 44.0-143 | | | 4.44 | 20 |
| Vinyl acetate | 125 | U | 170 | 170 | 136 | 136 | 1 | 30.0-160 | | | 0.0400 | 20 |
| Vinyl chloride | 25.0 | 5.22 | 35.1 | 32.8 | 119 | 110 | 1 | 24.0-153 | | | 6.56 | 20 |
| Xylenes, Total | 75.0 | U | 69.6 | 65.6 | 92.8 | 87.5 | 1 | 41.0-148 | | | 5.92 | 20 |
| *(S) Toluene-d8* | | | | | *111* | *108* | | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | | *105* | *102* | | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *101* | *97.0* | | *80.0-120* | | | | |

## Method Blank (MB)

(MB) R3206174-3 03/27/17 11:25

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3206174-3 03/27/17 11:25

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206174-1 03/27/17 09:53 • (LCSD) R3206174-2 03/27/17 10:16

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 150 | 163 | 120 | 130 | 10.0-160 | | | 7.72 | 23 |
| Acrylonitrile | 125 | 129 | 127 | 103 | 102 | 60.0-142 | | | 1.36 | 20 |
| Benzene | 25.0 | 25.4 | 26.3 | 101 | 105 | 69.0-123 | | | 3.63 | 20 |
| Bromobenzene | 25.0 | 26.1 | 27.6 | 104 | 110 | 79.0-120 | | | 5.35 | 20 |
| Bromodichloromethane | 25.0 | 25.8 | 27.0 | 103 | 108 | 76.0-120 | | | 4.45 | 20 |
| Bromochloromethane | 25.0 | 24.2 | 25.0 | 96.8 | 100 | 76.0-122 | | | 3.43 | 20 |
| Bromoform | 25.0 | 27.1 | 28.9 | 109 | 116 | 67.0-132 | | | 6.24 | 20 |
| Bromomethane | 25.0 | 25.2 | 27.3 | 101 | 109 | 18.0-160 | | | 7.88 | 20 |
| n-Butylbenzene | 25.0 | 23.4 | 24.7 | 93.7 | 98.6 | 72.0-126 | | | 5.15 | 20 |
| sec-Butylbenzene | 25.0 | 23.2 | 24.4 | 92.7 | 97.6 | 74.0-121 | | | 5.15 | 20 |
| tert-Butylbenzene | 25.0 | 24.2 | 25.6 | 96.9 | 102 | 75.0-122 | | | 5.51 | 20 |
| Carbon disulfide | 25.0 | 22.2 | 23.0 | 89.0 | 91.9 | 55.0-127 | | | 3.21 | 20 |
| Carbon tetrachloride | 25.0 | 23.8 | 26.3 | 95.3 | 105 | 63.0-122 | | | 9.96 | 20 |
| Chlorobenzene | 25.0 | 27.4 | 28.6 | 110 | 114 | 79.0-121 | | | 4.28 | 20 |
| Chlorodibromomethane | 25.0 | 27.2 | 28.6 | 109 | 114 | 75.0-125 | | | 5.20 | 20 |
| Chloroethane | 25.0 | 23.1 | 25.3 | 92.6 | 101 | 47.0-152 | | | 8.85 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 112 | 116 | 89.3 | 93.0 | 10.0-160 | | | 4.02 | 22 |
| Chloroform | 25.0 | 25.1 | 26.8 | 100 | 107 | 72.0-121 | | | 6.74 | 20 |
| Chloromethane | 25.0 | 23.4 | 24.5 | 93.6 | 98.1 | 48.0-139 | | | 4.67 | 20 |
| 2-Chlorotoluene | 25.0 | 26.4 | 28.0 | 105 | 112 | 74.0-122 | | | 5.98 | 20 |
| 4-Chlorotoluene | 25.0 | 26.5 | 28.0 | 106 | 112 | 79.0-120 | | | 5.64 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.5 | 26.0 | 98.1 | 104 | 64.0-127 | | | 5.71 | 20 |
| 1,2-Dibromoethane | 25.0 | 27.0 | 28.3 | 108 | 113 | 77.0-123 | | | 4.74 | 20 |
| Dibromomethane | 25.0 | 25.5 | 26.7 | 102 | 107 | 78.0-120 | | | 4.45 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 27.0 | 28.7 | 108 | 115 | 80.0-120 | | | 6.11 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 26.6 | 27.7 | 106 | 111 | 72.0-123 | | | 4.16 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 26.6 | 27.9 | 107 | 112 | 77.0-120 | | | 4.70 | 20 |
| Dichlorodifluoromethane | 25.0 | 34.4 | 36.6 | 138 | 147 | 49.0-155 | | | 6.35 | 20 |
| 1,1-Dichloroethane | 25.0 | 24.5 | 25.5 | 97.8 | 102 | 70.0-126 | | | 4.00 | 20 |
| 1,2-Dichloroethane | 25.0 | 24.8 | 26.0 | 99.3 | 104 | 67.0-126 | | | 4.83 | 20 |
| 1,1-Dichloroethene | 25.0 | 24.0 | 25.2 | 96.2 | 101 | 64.0-129 | | | 4.52 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 25.6 | 26.4 | 102 | 106 | 73.0-120 | | | 3.09 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 25.3 | 26.6 | 101 | 106 | 71.0-121 | | | 5.08 | 20 |
| 1,2-Dichloropropane | 25.0 | 24.6 | 25.8 | 98.4 | 103 | 75.0-125 | | | 4.74 | 20 |
| 1,1-Dichloropropene | 25.0 | 26.2 | 26.7 | 105 | 107 | 71.0-129 | | | 1.54 | 20 |
| 1,3-Dichloropropane | 25.0 | 27.9 | 29.3 | 112 | 117 | 80.0-121 | | | 4.76 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 26.6 | 28.0 | 106 | 112 | 79.0-123 | | | 5.20 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 25.8 | 26.8 | 103 | 107 | 74.0-127 | | | 3.85 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 22.8 | 23.7 | 91.2 | 94.9 | 55.0-134 | | | 3.98 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.9 | 24.9 | 91.7 | 99.7 | 60.0-125 | | | 8.41 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206174-1 03/27/17 09:53 • (LCSD) R3206174-2 03/27/17 10:16

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 22.5 | 23.0 | 90.0 | 92.2 | 59.0-133 | | | 2.41 | 20 |
| Ethylbenzene | 25.0 | 26.5 | 27.7 | 106 | 111 | 77.0-120 | | | 4.13 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 25.2 | 26.9 | 101 | 107 | 64.0-131 | | | 6.30 | 20 |
| 2-Hexanone | 125 | 152 | 158 | 122 | 126 | 58.0-147 | | | 3.79 | 20 |
| n-Hexane | 25.0 | 25.4 | 25.4 | 101 | 102 | 56.0-124 | | | 0.190 | 20 |
| Iodomethane | 125 | 76.0 | 87.2 | 60.8 | 69.8 | 57.0-140 | | | 13.7 | 20 |
| Isopropylbenzene | 25.0 | 25.2 | 26.3 | 101 | 105 | 75.0-120 | | | 4.56 | 20 |
| p-Isopropyltoluene | 25.0 | 24.6 | 25.6 | 98.5 | 102 | 74.0-126 | | | 3.91 | 20 |
| 2-Butanone (MEK) | 125 | 152 | 154 | 122 | 123 | 37.0-158 | | | 1.09 | 20 |
| Methylene Chloride | 25.0 | 23.6 | 24.3 | 94.4 | 97.3 | 66.0-121 | | | 2.98 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 138 | 143 | 111 | 115 | 59.0-143 | | | 3.41 | 20 |
| Methyl tert-butyl ether | 25.0 | 24.1 | 25.0 | 96.6 | 100 | 64.0-123 | | | 3.65 | 20 |
| Naphthalene | 25.0 | 24.9 | 26.5 | 99.6 | 106 | 62.0-128 | | | 6.30 | 20 |
| n-Propylbenzene | 25.0 | 25.8 | 27.0 | 103 | 108 | 79.0-120 | | | 4.48 | 20 |
| Styrene | 25.0 | 27.4 | 28.9 | 109 | 116 | 78.0-124 | | | 5.42 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 26.6 | 28.2 | 106 | 113 | 75.0-122 | | | 6.05 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.2 | 27.2 | 105 | 109 | 71.0-122 | | | 3.89 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 26.2 | 28.0 | 105 | 112 | 61.0-136 | | | 6.75 | 20 |
| Tetrachloroethene | 25.0 | 27.0 | 28.6 | 108 | 114 | 70.0-127 | | | 5.79 | 20 |
| Toluene | 25.0 | 25.1 | 26.4 | 101 | 106 | 77.0-120 | | | 4.95 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 25.3 | 26.5 | 101 | 106 | 61.0-133 | | | 4.74 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 25.7 | 27.4 | 103 | 110 | 69.0-129 | | | 6.31 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 24.9 | 26.7 | 99.6 | 107 | 68.0-122 | | | 6.84 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 27.7 | 28.8 | 111 | 115 | 78.0-120 | | | 4.07 | 20 |
| Trichloroethene | 25.0 | 25.7 | 26.8 | 103 | 107 | 78.0-120 | | | 4.37 | 20 |
| Trichlorofluoromethane | 25.0 | 24.4 | 25.8 | 97.4 | 103 | 56.0-137 | | | 5.81 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 26.7 | 27.5 | 107 | 110 | 72.0-124 | | | 3.02 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 25.2 | 26.6 | 101 | 106 | 75.0-120 | | | 5.24 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 24.7 | 26.1 | 99.0 | 104 | 75.0-120 | | | 5.17 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 24.3 | 25.5 | 97.2 | 102 | 75.0-120 | | | 4.99 | 20 |
| Vinyl acetate | 125 | 163 | 172 | 130 | 138 | 46.0-160 | | | 5.42 | 20 |
| Vinyl chloride | 25.0 | 28.8 | 30.1 | 115 | 121 | 64.0-133 | | | 4.71 | 20 |
| Xylenes, Total | 75.0 | 78.8 | 82.9 | 105 | 111 | 77.0-120 | | | 5.07 | 20 |
| *(S) Toluene-d8* | | | | *102* | *102* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *104* | *106* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *102* | *102* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

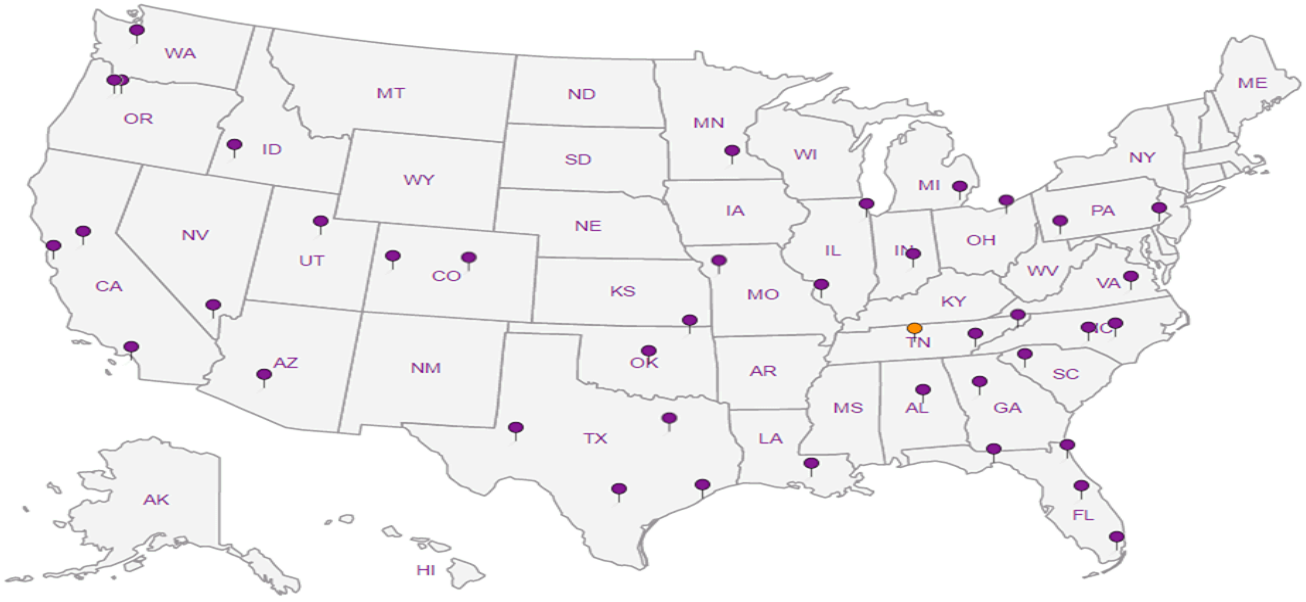
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): C. DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl ✓2 | Total Fe Mn 6020 250mlHDPE-HNO3 ✓2 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW10-032317 | Grab | GW | 40 | 3/23/17 | 1055 | 9 | X | | X | X | X | X | | -01 |
| MW103-032317 | Grab | GW | 108 | 3/23/17 | 1245 | 9 | X | | X | X | X | X | | 02 |
| MW11-032317 | Grab | GW | 75 | 3/23/17 | 1255 | 9 | X | | X | X | X | X | | 03 |
| R-MW5-032317 | Grab | GW | ~~1435~~ 25 | 3/23/17 | 1435 | 9 | X | | X | X | X | X | | 04 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7176 9011 7111

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris DeBoer | 3/23/17 | 1520 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: 3.4 °C Bottles Received: 36

Date: 3-24-17 Time: 9:00

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L847962
1157

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17

Shipped Via: FedEX Ground

# MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 23, 2017- Groundwater Samples

**LAB:** ESC Lab ID L897952

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Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 23, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897952. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897952 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in a cooler and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following discussions:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections were reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compounds naphthalene and 1,2,3-trichlorobenzene are not detected in associated samples therefore no action is required. Low level acetone detections were reported in samples MW110-032317, MW103-032317, and MW111-032317. **Acetone results in associated samples are qualified as non-detect (U) due to blank contamination.**

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

## Trip Blank Results

*USEPA Method 8260C:*
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate samples were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample analysis was performed on a client sample from another SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample analysis was performed on sample R-MW5-032317. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSDs were analyzed with each analytical batch by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within criteria and MS/MSD recoveries are also within criteria for these compounds.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*
An MS/MSD was not performed with batch WG964125. Refer to LCS/LCSD and RPD results for details. MS/MSD analysis was performed on sample MW111-032317 from batch WG964116. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD (WG964116) recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. Laboratory notes indicate that the sample matrix interfered with the ability to make an accurate determination. **Compound 2CEVE result for sample MW111-032317 is rejected (R) and the data are not usable due to poor recovery.** For the remaining samples, the LCS/LCSD results are acceptable for this compound thereby demonstrating laboratory capability and accuracy. Refer to LCS/LCSD data for additional information on 2CEVE.

*Method RSK-175:*
MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPDs for dissolved gases are within the laboratory control limit criteria for water samples with the following exception:

- MS/MSD recoveries for methane are outside of acceptance criteria and as a result the RPD exceeded laboratory acceptance criteria. No action is taken is this is a non-client sample and the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on sample MW110-032317. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Spike (MS) recovery for manganese is outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batch. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use with one exception:

- **Sample MW111-032317 result for VOC compound 2-chloroethyl vinyl ether (2CEVE) is rejected (R) and the result is not usable due to poor spike recoveries.**

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 425000 | | 2710 | 20000 | 1 | 03/25/2017 10:18 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 36200 | | 51.9 | 1000 | 1 | 03/24/2017 13:08 | WG963944 |
| Nitrate | 652 | | 22.7 | 100 | 1 | 03/24/2017 13:08 | WG963944 |
| Sulfate | 108000 | | 387 | 25000 | 5 | 03/29/2017 17:40 | WG964927 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7980 | | 102 | 1000 | 1 | 03/28/2017 18:19 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 94.8 J | J | 15.0 | 100 | 1 | 03/29/2017 21:14 | WG964085 |
| Manganese | 3900 | V | 0.250 | 5.00 | 1 | 03/29/2017 21:14 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 125 | | 0.287 | 0.678 | 1 | 03/28/2017 01:15 | WG964587 |
| Ethane | 1.21 | J | 0.296 | 1.29 | 1 | 03/28/2017 01:15 | WG964587 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/28/2017 01:15 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.62 U | B J | 1.05 | 25.0 | 1 | 03/28/2017 18:29 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Benzene | 0.330 J | J | 0.0896 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |

JE 4/18/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloroethene | 5.23 | | 0.188 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| cis-1,2-Dichloroethene | 644 | | 4.66 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| trans-1,2-Dichloroethene | 4.72 | | 0.152 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Tetrachloroethene | 1070 | | 9.95 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Trichloroethene | 389 | | 7.65 | 25.0 | 50 | 03/29/2017 18:15 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:29 | WG964116 |
| Vinyl chloride | 1.45 | | 0.118 | 0.500 | 1 | 03/28/2017 18:29 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:29 | WG964116 |
| *(S) Toluene-d8* | *98.4* | | | *80.0-120* | | *03/28/2017 18:29* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 18:15* | WG964116 |
| *(S) Dibromofluoromethane* | *99.5* | | | *76.0-123* | | *03/29/2017 18:15* | WG964116 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/28/2017 18:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *97.8* | | | *80.0-120* | | *03/28/2017 18:29* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 18:15* | WG964116 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 337000 | | 2710 | 20000 | 1 | 03/25/2017 10:24 | WG963928 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 48400 | | 51.9 | 1000 | 1 | 03/24/2017 13:39 | WG963944 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/24/2017 13:39 | WG963944 |
| Sulfate | 36300 | | 77.4 | 5000 | 1 | 03/24/2017 13:39 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1970 | | 102 | 1000 | 1 | 03/28/2017 18:38 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 1680 | | 15.0 | 100 | 1 | 03/29/2017 22:07 | WG964085 |
| Manganese | 1090 | | 0.250 | 5.00 | 1 | 03/29/2017 22:07 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 433 | | 0.287 | 0.678 | 1 | 03/28/2017 01:48 | WG964587 |
| Ethane | 82.5 | | 0.296 | 1.29 | 1 | 03/28/2017 01:48 | WG964587 |
| Ethene | 34.1 | | 0.422 | 1.27 | 1 | 03/28/2017 01:48 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.87 | BJ | 1.05 | 25.0 | 1 | 03/28/2017 18:49 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloroethane | 0.301 | J | 0.141 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloroethane | 0.195 J | J | 0.114 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloroethene | 3.69 | | 0.188 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| cis-1,2-Dichloroethene | 240 | | 0.933 | 5.00 | 10 | 03/29/2017 18:35 | WG964116 |
| trans-1,2-Dichloroethene | 0.405 J | J | 0.152 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Tetrachloroethene | U | | 1.99 | 5.00 | 10 | 03/29/2017 18:35 | WG964116 |
| Toluene | 0.464 J | J | 0.412 | 1.00 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Trichloroethene | 23.1 | | 0.153 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:49 | WG964116 |
| Vinyl chloride | 157 | | 0.118 | 0.500 | 1 | 03/28/2017 18:49 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 18:49 | WG964116 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* | | *03/29/2017 18:35* | WG964116 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *03/28/2017 18:49* | WG964116 |
| *(S) Dibromofluoromethane* | *102* | | | *76.0-123* | | *03/29/2017 18:35* | WG964116 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *03/28/2017 18:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:49* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 18:35* | WG964116 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 179000 | | 2710 | 20000 | 1 | 03/25/2017 13:47 | WG964048 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22900 | | 51.9 | 1000 | 1 | 03/24/2017 14:10 | WG963944 |
| Nitrate | 68.0 | J | 22.7 | 100 | 1 | 03/24/2017 14:10 | WG963944 |
| Sulfate | 8250 | | 77.4 | 5000 | 1 | 03/24/2017 14:10 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 918 | J | 102 | 1000 | 1 | 03/28/2017 18:56 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 391 | | 15.0 | 100 | 1 | 03/29/2017 22:11 | WG964085 |
| Manganese | 151 | | 0.250 | 5.00 | 1 | 03/29/2017 22:11 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 136 | | 0.287 | 0.678 | 1 | 03/28/2017 02:22 | WG964587 |
| Ethane | 5.74 | | 0.296 | 1.29 | 1 | 03/28/2017 02:22 | WG964587 |
| Ethene | 4.17 | | 0.422 | 1.27 | 1 | 03/28/2017 02:22 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 3.09 | B J | 1.05 | 25.0 | 1 | 03/28/2017 19:09 | WG964116 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chlorobenzene | U | J4 | 0.140 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Chloroethyl vinyl ether | U | J6 | 0.877 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| cis-1,2-Dichloroethene | 1.40 | | 0.0933 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Ethylbenzene | U | J4 | 0.158 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Hexane | 0.306 | J J | 0.305 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/29/2017 17:35 | WG964116 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 19:09 | WG964116 |
| Vinyl chloride | 5.22 | | 0.118 | 0.500 | 1 | 03/28/2017 19:09 | WG964116 |
| Xylenes, Total | U | J4 | 0.316 | 1.50 | 1 | 03/28/2017 19:09 | WG964116 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *03/28/2017 19:09* | WG964116 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 17:35* | WG964116 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *03/28/2017 19:09* | WG964116 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *03/29/2017 17:35* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *99.5* | | | *80.0-120* | | *03/28/2017 19:09* | WG964116 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/29/2017 17:35* | WG964116 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 183000 | | 2710 | 20000 | 1 | 03/25/2017 14:04 | WG964048 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 32200 | | 51.9 | 1000 | 1 | 03/24/2017 14:41 | WG963944 |
| Nitrate | 54.9 | J J | 22.7 | 100 | 1 | 03/24/2017 14:41 | WG963944 |
| Sulfate | 33000 | | 77.4 | 5000 | 1 | 03/24/2017 14:41 | WG963944 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 3940 | | 102 | 1000 | 1 | 03/28/2017 19:09 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 2940 | | 15.0 | 100 | 1 | 03/29/2017 22:24 | WG964085 |
| Manganese | 4240 | | 0.250 | 5.00 | 1 | 03/29/2017 22:24 | WG964085 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 118 | | 0.287 | 0.678 | 1 | 03/28/2017 02:38 | WG964587 |
| Ethane | U | | 0.296 | 1.29 | 1 | 03/28/2017 02:38 | WG964587 |
| Ethene | U | | 0.422 | 1.27 | 1 | 03/28/2017 02:38 | WG964587 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 03/27/2017 20:48 | WG964125 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/30/2017 01:43 | WG964125 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Tetrachloroethene | 0.338 | J | 0.199 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Trichloroethene | 0.186 | J | 0.153 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/27/2017 20:48 | WG964125 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/27/2017 20:48 | WG964125 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/27/2017 20:48 | WG964125 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *03/27/2017 20:48* | WG964125 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *03/30/2017 01:43* | WG964125 |
| *(S) Dibromofluoromethane* | *96.9* | | | *76.0-123* | | *03/30/2017 01:43* | WG964125 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *03/27/2017 20:48* | WG964125 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/30/2017 01:43* | WG964125 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/27/2017 20:48* | WG964125 |

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# ANALYTICAL REPORT

April 05, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L898272 |
| Samples Received: | 03/25/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## GEI-1-032417 L898272-01 GW

Collected by: Chris D
Collected date/time: 03/24/17 10:00
Received date/time: 03/25/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964237 | 1 | 03/28/17 10:12 | 03/28/17 10:12 | AMC |
| Wet Chemistry by Method 9056A | WG964255 | 1 | 03/25/17 16:12 | 03/25/17 16:12 | KCF |
| Wet Chemistry by Method 9056A | WG964927 | 1 | 03/29/17 18:17 | 03/29/17 18:17 | KCF |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 19:36 | 03/28/17 19:36 | SJM |
| Metals (ICPMS) by Method 6020 | WG966184 | 1 | 04/01/17 07:17 | 04/01/17 14:37 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966467 | 1 | 04/02/17 08:18 | 04/02/17 08:18 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966662 | 40 | 04/03/17 08:27 | 04/03/17 08:27 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964788 | 1 | 03/28/17 18:21 | 03/28/17 18:21 | LRL |

## GEI-2-032417 L898272-02 GW

Collected by: Chris D
Collected date/time: 03/24/17 11:15
Received date/time: 03/25/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964734 | 1 | 03/28/17 16:50 | 03/28/17 16:50 | AMC |
| Wet Chemistry by Method 9056A | WG964255 | 1 | 03/25/17 16:43 | 03/25/17 16:43 | KCF |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 19:50 | 03/28/17 19:50 | SJM |
| Metals (ICPMS) by Method 6020 | WG966184 | 1 | 04/01/17 07:17 | 04/01/17 14:40 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966467 | 1 | 04/02/17 08:35 | 04/02/17 08:35 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966662 | 40 | 04/03/17 08:44 | 04/03/17 08:44 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964788 | 1 | 03/28/17 18:41 | 03/28/17 18:41 | LRL |

## F-MW-131-032417 L898272-03 GW

Collected by: Chris D
Collected date/time: 03/24/17 12:35
Received date/time: 03/25/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964734 | 1 | 03/28/17 16:56 | 03/28/17 16:56 | AMC |
| Wet Chemistry by Method 9056A | WG964255 | 1 | 03/25/17 17:15 | 03/25/17 17:15 | KCF |
| Wet Chemistry by Method 9060A | WG964476 | 1 | 03/28/17 20:05 | 03/28/17 20:05 | SJM |
| Metals (ICPMS) by Method 6020 | WG966184 | 1 | 04/01/17 07:17 | 04/01/17 14:52 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966467 | 1 | 04/02/17 08:52 | 04/02/17 08:52 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964788 | 1 | 03/28/17 19:01 | 03/28/17 19:01 | LRL |

## F-MW-3D-032417 L898272-04 GW

Collected by: Chris D
Collected date/time: 03/24/17 13:50
Received date/time: 03/25/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG964788 | 1 | 03/29/17 18:55 | 03/29/17 18:55 | BMB |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 564000 | | 2710 | 20000 | 1 | 03/28/2017 10:12 | WG964237 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 8870 | | 51.9 | 1000 | 1 | 03/25/2017 16:12 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 16:12 | WG964255 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/29/2017 18:17 | WG964927 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11700 | | 102 | 1000 | 1 | 03/28/2017 19:36 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 23800 | | 15.0 | 100 | 1 | 04/01/2017 14:37 | WG966184 |
| Manganese | 3100 | | 0.250 | 5.00 | 1 | 04/01/2017 14:37 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 20500 | | 11.5 | 27.1 | 40 | 04/03/2017 08:27 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 08:18 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:18 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.90 | J J0 | 1.05 | 25.0 | 1 | 03/28/2017 18:21 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Naphthalene | 0.207 | B J | 0.174 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 18:21 | WG964788 |
| *(S) Toluene-d8* | *99.5* | | | *80.0-120* | | *03/28/2017 18:21* | WG964788 |
| *(S) Dibromofluoromethane* | *95.1* | | | *76.0-123* | | *03/28/2017 18:21* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/28/2017 18:21* | WG964788 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 420000 | | 2710 | 20000 | 1 | 03/28/2017 16:50 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 12500 | | 51.9 | 1000 | 1 | 03/25/2017 16:43 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 16:43 | WG964255 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/25/2017 16:43 | WG964255 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 8140 | | 102 | 1000 | 1 | 03/28/2017 19:50 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 24000 | | 15.0 | 100 | 1 | 04/01/2017 14:40 | WG966184 |
| Manganese | 898 | | 0.250 | 5.00 | 1 | 04/01/2017 14:40 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 15100 | | 11.5 | 27.1 | 40 | 04/03/2017 08:44 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 08:35 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:35 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.74 | J J0 | 1.05 | 25.0 | 1 | 03/28/2017 18:41 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| cis-1,2-Dichloroethene | 2.25 | | 0.0933 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Naphthalene | 0.271 | B J | 0.174 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Vinyl chloride | 6.94 | | 0.118 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 18:41 | WG964788 |
| *(S) Toluene-d8* | *99.3* | | | *80.0-120* | | *03/28/2017 18:41* | WG964788 |
| *(S) Dibromofluoromethane* | *97.4* | | | *76.0-123* | | *03/28/2017 18:41* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:41* | WG964788 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 166000 | | 2710 | 20000 | 1 | 03/28/2017 16:56 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 6120 | | 51.9 | 1000 | 1 | 03/25/2017 17:15 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 17:15 | WG964255 |
| Sulfate | 738 | J | 77.4 | 5000 | 1 | 03/25/2017 17:15 | WG964255 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2180 | | 102 | 1000 | 1 | 03/28/2017 20:05 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 598 | | 15.0 | 100 | 1 | 04/01/2017 14:52 | WG966184 |
| Manganese | 1030 | | 0.250 | 5.00 | 1 | 04/01/2017 14:52 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 159 | | 0.287 | 0.678 | 1 | 04/02/2017 08:52 | WG966467 |
| Ethane | 1.19 | J | 0.296 | 1.29 | 1 | 04/02/2017 08:52 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:52 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.31 | J J0 | 1.05 | 25.0 | 1 | 03/28/2017 19:01 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| cis-1,2-Dichloroethene | 45.6 | | 0.0933 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Naphthalene | 0.273 | B J | 0.174 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Vinyl chloride | 0.249 | J | 0.118 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 19:01 | WG964788 |
| *(S) Toluene-d8* | *98.5* | | | *80.0-120* | | *03/28/2017 19:01* | WG964788 |
| *(S) Dibromofluoromethane* | *96.7* | | | *76.0-123* | | *03/28/2017 19:01* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *99.8* | | | *80.0-120* | | *03/28/2017 19:01* | WG964788 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.89 | J | 1.05 | 25.0 | 1 | 03/29/2017 18:55 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Chloroethyl vinyl ether | U | J6 | 0.877 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/29/2017 18:55 | WG964788 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 18:55* | WG964788 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *03/29/2017 18:55* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 18:55* | WG964788 |

## Method Blank (MB)

(MB) R3206327-1 03/28/17 07:49

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity | 3450 | J | 2710 | 20000 |

## L898246-05 Original Sample (OS) • Duplicate (DUP)

(OS) L898246-05 03/28/17 07:57 • (DUP) R3206327-3 03/28/17 08:06

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 142000 | 145000 | 1 | 2.00 | | 20 |

## L898173-12 Original Sample (OS) • Duplicate (DUP)

(OS) L898173-12 03/28/17 11:20 • (DUP) R3206327-6 03/28/17 11:26

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 141000 | 128000 | 1 | 9.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206327-4 03/28/17 09:04 • (LCSD) R3206327-5 03/28/17 10:32

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Alkalinity | 100000 | 104000 | 111000 | 104 | 111 | 85.0-115 | | | 7.00 | 20 |

## Method Blank (MB)

(MB) R3206451-2 03/28/17 13:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3680 | J | 2710 | 20000 |

## L898272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-03 03/28/17 16:56 • (DUP) R3206451-7 03/28/17 17:03

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 166000 | 162000 | 1 | 3.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206451-5 03/28/17 14:43 • (LCSD) R3206451-6 03/28/17 16:18

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 102000 | 92500 | 102 | 93.0 | 85.0-115 | | | 10.0 | 20 |

## Method Blank (MB)

(MB) R3206017-1 03/25/17 06:44

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L898272-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-01 03/25/17 16:12 • (DUP) R3206017-4 03/25/17 16:28

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 8870 | 8660 | 1 | 2 | | 15 |
| Nitrate | U | 0.000 | 1 | 0 | | 15 |
| Sulfate | U | 0.000 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206017-2 03/25/17 07:00 • (LCSD) R3206017-3 03/25/17 07:16

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 38700 | 38700 | 97 | 97 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 7960 | 7960 | 99 | 99 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 38900 | 38900 | 97 | 97 | 80-120 | | | 0 | 15 |

## L898272-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L898272-02 03/25/17 16:43 • (MS) R3206017-5 03/25/17 16:59

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 12500 | 62500 | 100 | 1 | 80-120 | |
| Nitrate | 5000 | U | 4710 | 94 | 1 | 80-120 | |
| Sulfate | 50000 | U | 48300 | 97 | 1 | 80-120 | |

## Method Blank (MB)

(MB) R3206903-1 03/29/17 06:00

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Sulfate | U | | 77.4 | 5000 |

## L897906-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-03 03/29/17 12:08 • (DUP) R3206903-4 03/29/17 12:27

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Sulfate | U | 0.000 | 1 | 0 | | 15 |

## L898561-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898561-01 03/29/17 18:54 • (DUP) R3206903-6 03/29/17 19:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Sulfate | 24100 | 24400 | 1 | 1 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206903-2 03/29/17 06:18 • (LCSD) R3206903-3 03/29/17 06:36

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 40000 | 40400 | 40000 | 101 | 100 | 80-120 | | | 1 | 15 |

## L897906-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L897906-06 03/29/17 12:45 • (MS) R3206903-5 03/29/17 13:04

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Sulfate | 50000 | 31900 | 79700 | 96 | 1 | 80-120 | |

## Method Blank (MB)

(MB) R3206515-1 03/28/17 10:04

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L897786-16 Original Sample (OS) • Duplicate (DUP)

(OS) L897786-16 03/28/17 11:46 • (DUP) R3206515-3 03/28/17 12:01

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 1090 | 1120 | 1 | 3 | | 20 |

## L897952-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897952-04 03/28/17 19:09 • (DUP) R3206515-7 03/28/17 19:22

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 3940 | 3940 | 1 | 0 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206515-2 03/28/17 11:07 • (LCSD) R3206515-4 03/28/17 13:42

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 73200 | 73300 | 98 | 98 | 85-115 | | | 0 | 20 |

## L897833-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897833-01 03/28/17 15:56 • (MS) R3206515-5 03/28/17 16:14 • (MSD) R3206515-6 03/28/17 16:32

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 2170 | 52800 | 53600 | 101 | 103 | 1 | 80-120 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3207597-1 04/01/17 14:13

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207597-2 04/01/17 14:16 • (LCSD) R3207597-3 04/01/17 14:19

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5040 | 5080 | 101 | 102 | 80-120 | | | 1 | 20 |
| Manganese | 50.0 | 48.3 | 47.7 | 97 | 95 | 80-120 | | | 1 | 20 |

## L899117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899117-01 04/01/17 14:23 • (MS) R3207597-5 04/01/17 14:30 • (MSD) R3207597-6 04/01/17 14:33

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 1530 | 6770 | 7340 | 105 | 116 | 1 | 75-125 | | | 8 | 20 |
| Manganese | 50.0 | 1150 | 1330 | 1520 | 368 | 746 | 1 | 75-125 | V | V | 13 | 20 |

## Method Blank (MB)

(MB) R3207637-1 04/02/17 07:29

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L898277-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898277-01 04/02/17 09:08 • (DUP) R3207637-2 04/02/17 10:48

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L898278-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898278-01 04/02/17 11:05 • (DUP) R3207637-3 04/02/17 14:10

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207637-4 04/02/17 14:27 • (LCSD) R3207637-5 04/02/17 14:44

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 70.0 | 70.0 | 103 | 103 | 70.0-130 | | | 0.100 | 20 |
| Ethane | 129 | 125 | 126 | 97.2 | 97.8 | 70.0-130 | | | 0.620 | 20 |
| Ethene | 127 | 125 | 126 | 98.4 | 99.0 | 70.0-130 | | | 0.700 | 20 |

## Method Blank (MB)

(MB) R3207733-1 04/03/17 08:11

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898516-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-03 04/03/17 10:24 • (DUP) R3207733-2 04/03/17 11:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 11500 | 11900 | 1 | 3.67 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207733-3 04/03/17 11:31 • (LCSD) R3207733-4 04/03/17 11:47

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 72.3 | 73.0 | 107 | 108 | 70.0-130 | | | 0.890 | 20 |

## Method Blank (MB)

(MB) R3206627-1 03/28/17 09:00

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3206627-1 03/28/17 09:00

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.196 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *98.7* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *97.8* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206627-2 03/28/17 11:25 • (LCSD) R3206627-3 03/28/17 11:45

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 156 | 196 | 125 | 157 | 10.0-160 | | | 22.5 | 23 |
| Acrylonitrile | 125 | 126 | 156 | 101 | 125 | 60.0-142 | | J3 | 21.2 | 20 |
| Benzene | 25.0 | 26.6 | 27.6 | 106 | 110 | 69.0-123 | | | 3.47 | 20 |
| Bromobenzene | 25.0 | 27.2 | 26.6 | 109 | 106 | 79.0-120 | | | 2.34 | 20 |
| Bromodichloromethane | 25.0 | 25.3 | 26.6 | 101 | 107 | 76.0-120 | | | 5.08 | 20 |
| Bromochloromethane | 25.0 | 26.9 | 28.6 | 108 | 115 | 76.0-122 | | | 6.21 | 20 |
| Bromoform | 25.0 | 24.1 | 26.3 | 96.5 | 105 | 67.0-132 | | | 8.71 | 20 |
| Bromomethane | 25.0 | 25.4 | 28.0 | 102 | 112 | 18.0-160 | | | 9.81 | 20 |
| n-Butylbenzene | 25.0 | 29.7 | 28.7 | 119 | 115 | 72.0-126 | | | 3.29 | 20 |
| sec-Butylbenzene | 25.0 | 29.7 | 27.9 | 119 | 111 | 74.0-121 | | | 6.39 | 20 |
| tert-Butylbenzene | 25.0 | 29.3 | 27.7 | 117 | 111 | 75.0-122 | | | 5.44 | 20 |
| Carbon disulfide | 25.0 | 22.9 | 23.2 | 91.7 | 92.6 | 55.0-127 | | | 1.00 | 20 |
| Carbon tetrachloride | 25.0 | 26.2 | 26.7 | 105 | 107 | 63.0-122 | | | 1.94 | 20 |
| Chlorobenzene | 25.0 | 28.0 | 27.2 | 112 | 109 | 79.0-121 | | | 2.98 | 20 |
| Chlorodibromomethane | 25.0 | 26.0 | 27.3 | 104 | 109 | 75.0-125 | | | 4.85 | 20 |
| Chloroethane | 25.0 | 26.3 | 27.1 | 105 | 109 | 47.0-152 | | | 3.01 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 117 | 136 | 94.0 | 109 | 10.0-160 | | | 14.6 | 22 |
| Chloroform | 25.0 | 26.4 | 27.5 | 106 | 110 | 72.0-121 | | | 4.08 | 20 |
| Chloromethane | 25.0 | 24.4 | 25.1 | 97.5 | 100 | 48.0-139 | | | 2.90 | 20 |
| 2-Chlorotoluene | 25.0 | 29.1 | 28.1 | 116 | 112 | 74.0-122 | | | 3.44 | 20 |
| 4-Chlorotoluene | 25.0 | 29.5 | 28.1 | 118 | 112 | 79.0-120 | | | 4.77 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.7 | 26.7 | 90.8 | 107 | 64.0-127 | | | 16.3 | 20 |
| 1,2-Dibromoethane | 25.0 | 24.6 | 26.1 | 98.4 | 104 | 77.0-123 | | | 5.90 | 20 |
| Dibromomethane | 25.0 | 24.7 | 27.2 | 98.9 | 109 | 78.0-120 | | | 9.35 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 27.4 | 28.1 | 110 | 112 | 80.0-120 | | | 2.55 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 28.9 | 28.0 | 115 | 112 | 72.0-123 | | | 3.16 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 26.8 | 27.1 | 107 | 108 | 77.0-120 | | | 1.20 | 20 |
| Dichlorodifluoromethane | 25.0 | 28.3 | 28.2 | 113 | 113 | 49.0-155 | | | 0.570 | 20 |
| 1,1-Dichloroethane | 25.0 | 27.9 | 28.3 | 112 | 113 | 70.0-126 | | | 1.52 | 20 |
| 1,2-Dichloroethane | 25.0 | 26.1 | 28.4 | 104 | 114 | 67.0-126 | | | 8.59 | 20 |
| 1,1-Dichloroethene | 25.0 | 25.9 | 26.4 | 104 | 105 | 64.0-129 | | | 1.64 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 26.6 | 27.4 | 107 | 110 | 73.0-120 | | | 2.92 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 25.9 | 26.3 | 104 | 105 | 71.0-121 | | | 1.62 | 20 |
| 1,2-Dichloropropane | 25.0 | 27.2 | 27.9 | 109 | 112 | 75.0-125 | | | 2.48 | 20 |
| 1,1-Dichloropropene | 25.0 | 27.3 | 27.3 | 109 | 109 | 71.0-129 | | | 0.0200 | 20 |
| 1,3-Dichloropropane | 25.0 | 26.0 | 27.0 | 104 | 108 | 80.0-121 | | | 3.60 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 26.7 | 28.1 | 107 | 112 | 79.0-123 | | | 5.20 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 26.5 | 29.9 | 106 | 120 | 74.0-127 | | | 12.2 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 23.8 | 28.2 | 95.1 | 113 | 55.0-134 | | | 17.0 | 20 |
| 2,2-Dichloropropane | 25.0 | 27.4 | 28.9 | 109 | 116 | 60.0-125 | | | 5.44 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206627-2 03/28/17 11:25 • (LCSD) R3206627-3 03/28/17 11:45

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 26.5 | 28.6 | 106 | 114 | 59.0-133 | | | 7.42 | 20 |
| Ethylbenzene | 25.0 | 28.5 | 27.1 | 114 | 108 | 77.0-120 | | | 5.07 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 28.5 | 27.0 | 114 | 108 | 64.0-131 | | | 5.58 | 20 |
| 2-Hexanone | 125 | 135 | 168 | 108 | 135 | 58.0-147 | | J3 | 21.8 | 20 |
| n-Hexane | 25.0 | 22.3 | 22.8 | 89.4 | 91.4 | 56.0-124 | | | 2.21 | 20 |
| Iodomethane | 125 | 132 | 134 | 105 | 107 | 57.0-140 | | | 2.09 | 20 |
| Isopropylbenzene | 25.0 | 29.1 | 27.7 | 116 | 111 | 75.0-120 | | | 4.78 | 20 |
| p-Isopropyltoluene | 25.0 | 30.1 | 28.1 | 120 | 112 | 74.0-126 | | | 6.69 | 20 |
| 2-Butanone (MEK) | 125 | 129 | 175 | 103 | 140 | 37.0-158 | | J3 | 30.1 | 20 |
| Methylene Chloride | 25.0 | 25.5 | 26.7 | 102 | 107 | 66.0-121 | | | 4.60 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 122 | 157 | 97.4 | 126 | 59.0-143 | | J3 | 25.3 | 20 |
| Methyl tert-butyl ether | 25.0 | 24.5 | 28.2 | 98.2 | 113 | 64.0-123 | | | 14.0 | 20 |
| Naphthalene | 25.0 | 23.3 | 25.6 | 93.0 | 102 | 62.0-128 | | | 9.44 | 20 |
| n-Propylbenzene | 25.0 | 29.1 | 27.5 | 117 | 110 | 79.0-120 | | | 5.70 | 20 |
| Styrene | 25.0 | 29.2 | 28.4 | 117 | 114 | 78.0-124 | | | 2.71 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 28.1 | 27.4 | 113 | 109 | 75.0-122 | | | 2.81 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 23.7 | 26.6 | 94.9 | 106 | 71.0-122 | | | 11.4 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 27.7 | 27.6 | 111 | 110 | 61.0-136 | | | 0.250 | 20 |
| Tetrachloroethene | 25.0 | 27.5 | 26.7 | 110 | 107 | 70.0-127 | | | 2.91 | 20 |
| Toluene | 25.0 | 26.0 | 26.4 | 104 | 105 | 77.0-120 | | | 1.32 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 27.0 | 27.2 | 108 | 109 | 61.0-133 | | | 0.750 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 29.3 | 28.7 | 117 | 115 | 69.0-129 | | | 2.05 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 26.9 | 27.4 | 107 | 110 | 68.0-122 | | | 2.05 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 23.9 | 25.3 | 95.5 | 101 | 78.0-120 | | | 5.83 | 20 |
| Trichloroethene | 25.0 | 26.3 | 26.5 | 105 | 106 | 78.0-120 | | | 0.680 | 20 |
| Trichlorofluoromethane | 25.0 | 28.5 | 28.9 | 114 | 116 | 56.0-137 | | | 1.49 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 24.5 | 27.7 | 98.2 | 111 | 72.0-124 | | | 12.1 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 29.0 | 27.2 | 116 | 109 | 75.0-120 | | | 6.14 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 27.2 | 27.2 | 109 | 109 | 75.0-120 | | | 0.0100 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 29.1 | 27.5 | 116 | 110 | 75.0-120 | | | 5.53 | 20 |
| Vinyl acetate | 125 | 142 | 164 | 114 | 131 | 46.0-160 | | | 14.3 | 20 |
| Vinyl chloride | 25.0 | 26.2 | 26.9 | 105 | 108 | 64.0-133 | | | 2.77 | 20 |
| Xylenes, Total | 75.0 | 84.7 | 81.0 | 113 | 108 | 77.0-120 | | | 4.47 | 20 |
| *(S) Toluene-d8* | | | | *98.2* | *99.3* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *94.8* | *99.6* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *103* | *100* | *80.0-120* | | | | |

## L898272-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898272-04 03/29/17 18:55 • (MS) R3206853-1 03/29/17 19:15 • (MSD) R3206853-2 03/29/17 19:35

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 1.89 | 91.6 | 93.8 | 71.8 | 73.5 | 1 | 10.0-139 | | | 2.34 | 25 |
| Acrylonitrile | 125 | U | 148 | 157 | 119 | 126 | 1 | 46.0-159 | | | 5.76 | 23 |
| Benzene | 25.0 | U | 21.0 | 22.6 | 84.2 | 90.5 | 1 | 34.0-147 | | | 7.29 | 20 |
| Bromobenzene | 25.0 | U | 24.1 | 25.0 | 96.6 | 100 | 1 | 51.0-137 | | | 3.49 | 20 |
| Bromodichloromethane | 25.0 | U | 26.4 | 27.4 | 106 | 110 | 1 | 52.0-135 | | | 3.55 | 20 |
| Bromochloromethane | 25.0 | U | 25.4 | 26.9 | 102 | 107 | 1 | 53.0-138 | | | 5.61 | 20 |
| Bromoform | 25.0 | U | 23.5 | 23.9 | 94.1 | 95.8 | 1 | 50.0-146 | | | 1.76 | 20 |
| Bromomethane | 25.0 | U | 28.2 | 31.4 | 113 | 125 | 1 | 10.0-160 | | | 10.7 | 23 |
| n-Butylbenzene | 25.0 | U | 23.7 | 24.3 | 94.8 | 97.1 | 1 | 50.0-144 | | | 2.38 | 20 |
| sec-Butylbenzene | 25.0 | U | 23.5 | 24.4 | 94.1 | 97.5 | 1 | 48.0-143 | | | 3.59 | 20 |
| tert-Butylbenzene | 25.0 | U | 21.7 | 22.3 | 86.6 | 89.4 | 1 | 50.0-142 | | | 3.15 | 20 |
| Carbon disulfide | 25.0 | U | 25.4 | 27.9 | 102 | 112 | 1 | 10.0-147 | | | 9.51 | 20 |
| Carbon tetrachloride | 25.0 | U | 21.4 | 23.7 | 85.7 | 94.7 | 1 | 41.0-138 | | | 10.0 | 20 |
| Chlorobenzene | 25.0 | U | 24.8 | 25.3 | 99.3 | 101 | 1 | 52.0-141 | | | 2.06 | 20 |
| Chlorodibromomethane | 25.0 | U | 26.6 | 27.3 | 106 | 109 | 1 | 54.0-142 | | | 2.67 | 20 |
| Chloroethane | 25.0 | U | 27.4 | 31.0 | 110 | 124 | 1 | 23.0-160 | | | 12.2 | 20 |
| 2-Chloroethyl vinyl ether | 125 | U | ND | ND | 0.000 | 0.000 | 1 | 10.0-160 | J6 | J6 | 0.000 | 40 |
| Chloroform | 25.0 | U | 24.6 | 26.1 | 98.3 | 105 | 1 | 50.0-139 | | | 6.17 | 20 |
| Chloromethane | 25.0 | U | 26.3 | 28.8 | 105 | 115 | 1 | 14.0-151 | | | 8.85 | 20 |
| 2-Chlorotoluene | 25.0 | U | 24.3 | 25.3 | 97.2 | 101 | 1 | 48.0-142 | | | 4.14 | 20 |
| 4-Chlorotoluene | 25.0 | U | 24.6 | 25.3 | 98.3 | 101 | 1 | 52.0-139 | | | 3.02 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | U | 24.8 | 25.9 | 99.2 | 104 | 1 | 49.0-144 | | | 4.39 | 24 |
| 1,2-Dibromoethane | 25.0 | U | 25.3 | 26.6 | 101 | 106 | 1 | 54.0-140 | | | 5.14 | 20 |
| Dibromomethane | 25.0 | U | 23.3 | 24.1 | 93.1 | 96.3 | 1 | 53.0-138 | | | 3.41 | 20 |
| 1,2-Dichlorobenzene | 25.0 | U | 23.7 | 24.7 | 94.6 | 99.0 | 1 | 56.0-139 | | | 4.46 | 20 |
| 1,3-Dichlorobenzene | 25.0 | U | 23.4 | 24.2 | 93.7 | 96.9 | 1 | 50.0-141 | | | 3.38 | 20 |
| 1,4-Dichlorobenzene | 25.0 | U | 22.9 | 23.2 | 91.5 | 92.8 | 1 | 53.0-136 | | | 1.39 | 20 |
| Dichlorodifluoromethane | 25.0 | U | 26.5 | 28.2 | 106 | 113 | 1 | 20.0-160 | | | 6.11 | 21 |
| 1,1-Dichloroethane | 25.0 | U | 25.3 | 27.2 | 101 | 109 | 1 | 47.0-143 | | | 7.28 | 20 |
| 1,2-Dichloroethane | 25.0 | U | 27.2 | 28.4 | 109 | 114 | 1 | 47.0-141 | | | 4.44 | 20 |
| 1,1-Dichloroethene | 25.0 | U | 28.5 | 30.7 | 114 | 123 | 1 | 31.0-148 | | | 7.52 | 20 |
| cis-1,2-Dichloroethene | 25.0 | U | 25.1 | 27.1 | 100 | 109 | 1 | 43.0-142 | | | 7.76 | 20 |
| trans-1,2-Dichloroethene | 25.0 | U | 24.1 | 25.7 | 96.3 | 103 | 1 | 36.0-141 | | | 6.65 | 20 |
| 1,2-Dichloropropane | 25.0 | U | 26.8 | 27.7 | 107 | 111 | 1 | 51.0-141 | | | 3.15 | 20 |
| 1,1-Dichloropropene | 25.0 | U | 25.2 | 27.0 | 101 | 108 | 1 | 42.0-146 | | | 6.87 | 20 |
| 1,3-Dichloropropane | 25.0 | U | 25.3 | 26.5 | 101 | 106 | 1 | 58.0-139 | | | 4.76 | 20 |
| cis-1,3-Dichloropropene | 25.0 | U | 28.4 | 29.8 | 114 | 119 | 1 | 53.0-139 | | | 4.96 | 20 |
| trans-1,3-Dichloropropene | 25.0 | U | 27.8 | 29.1 | 111 | 116 | 1 | 51.0-143 | | | 4.57 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | U | 24.6 | 25.5 | 98.5 | 102 | 1 | 40.0-150 | | | 3.59 | 21 |
| 2,2-Dichloropropane | 25.0 | U | 24.4 | 27.7 | 97.7 | 111 | 1 | 43.0-139 | | | 12.4 | 20 |

## L898272-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898272-04 03/29/17 18:55 • (MS) R3206853-1 03/29/17 19:15 • (MSD) R3206853-2 03/29/17 19:35

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | U | 26.8 | 29.0 | 107 | 116 | 1 | 44.0-144 | | | 7.73 | 20 |
| Ethylbenzene | 25.0 | U | 21.1 | 21.7 | 84.5 | 86.7 | 1 | 42.0-147 | | | 2.52 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | U | 22.5 | 23.7 | 90.1 | 95.0 | 1 | 44.0-146 | | | 5.31 | 21 |
| 2-Hexanone | 125 | U | 128 | 133 | 103 | 106 | 1 | 36.0-145 | | | 3.29 | 23 |
| n-Hexane | 25.0 | U | 20.8 | 22.5 | 83.3 | 90.0 | 1 | 13.0-145 | | | 7.64 | 20 |
| Iodomethane | 125 | U | 152 | 165 | 122 | 132 | 1 | 30.0-151 | | | 7.94 | 20 |
| Isopropylbenzene | 25.0 | U | 21.4 | 22.2 | 85.6 | 88.7 | 1 | 48.0-141 | | | 3.63 | 20 |
| p-Isopropyltoluene | 25.0 | U | 24.5 | 25.2 | 98.2 | 101 | 1 | 49.0-146 | | | 2.70 | 20 |
| 2-Butanone (MEK) | 125 | U | 125 | 132 | 99.9 | 106 | 1 | 12.0-149 | | | 5.72 | 24 |
| Methylene Chloride | 25.0 | U | 23.4 | 25.2 | 93.6 | 101 | 1 | 42.0-135 | | | 7.35 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | U | 174 | 182 | 140 | 146 | 1 | 44.0-160 | | | 4.38 | 22 |
| Methyl tert-butyl ether | 25.0 | U | 27.0 | 28.8 | 108 | 115 | 1 | 42.0-142 | | | 6.41 | 20 |
| Naphthalene | 25.0 | U | 21.6 | 22.7 | 86.2 | 90.9 | 1 | 42.0-146 | | | 5.28 | 24 |
| n-Propylbenzene | 25.0 | U | 21.5 | 22.3 | 86.0 | 89.1 | 1 | 47.0-144 | | | 3.55 | 20 |
| Styrene | 25.0 | U | 22.9 | 24.3 | 91.4 | 97.0 | 1 | 47.0-147 | | | 5.97 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | U | 25.7 | 26.2 | 103 | 105 | 1 | 52.0-140 | | | 2.17 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | U | 25.2 | 26.3 | 101 | 105 | 1 | 46.0-149 | | | 4.14 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | U | 25.9 | 28.4 | 104 | 113 | 1 | 40.0-151 | | | 8.89 | 21 |
| Tetrachloroethene | 25.0 | U | 24.1 | 25.3 | 96.2 | 101 | 1 | 38.0-147 | | | 5.19 | 20 |
| Toluene | 25.0 | U | 21.3 | 22.2 | 85.0 | 88.9 | 1 | 42.0-141 | | | 4.40 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | U | 22.5 | 23.8 | 90.0 | 95.4 | 1 | 45.0-145 | | | 5.75 | 22 |
| 1,2,4-Trichlorobenzene | 25.0 | U | 22.8 | 23.4 | 91.1 | 93.5 | 1 | 49.0-147 | | | 2.63 | 21 |
| 1,1,1-Trichloroethane | 25.0 | U | 25.4 | 27.7 | 102 | 111 | 1 | 46.0-140 | | | 8.47 | 20 |
| 1,1,2-Trichloroethane | 25.0 | U | 24.9 | 25.5 | 99.4 | 102 | 1 | 54.0-139 | | | 2.67 | 20 |
| Trichloroethene | 25.0 | U | 25.5 | 25.9 | 102 | 104 | 1 | 32.0-156 | | | 1.63 | 20 |
| Trichlorofluoromethane | 25.0 | U | 27.7 | 30.7 | 111 | 123 | 1 | 32.0-152 | | | 10.3 | 20 |
| 1,2,3-Trichloropropane | 25.0 | U | 26.2 | 27.0 | 105 | 108 | 1 | 54.0-143 | | | 3.14 | 21 |
| 1,2,4-Trimethylbenzene | 25.0 | U | 24.2 | 25.2 | 96.9 | 101 | 1 | 41.0-146 | | | 4.11 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | U | 20.7 | 21.7 | 82.8 | 86.7 | 1 | 48.0-138 | | | 4.54 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | U | 23.5 | 24.5 | 94.1 | 98.0 | 1 | 44.0-143 | | | 4.08 | 20 |
| Vinyl acetate | 125 | U | 170 | 179 | 136 | 143 | 1 | 30.0-160 | | | 4.78 | 20 |
| Vinyl chloride | 25.0 | U | 29.0 | 32.1 | 116 | 129 | 1 | 24.0-153 | | | 10.1 | 20 |
| Xylenes, Total | 75.0 | U | 61.9 | 65.2 | 82.5 | 86.9 | 1 | 41.0-148 | | | 5.19 | 20 |
| *(S) Toluene-d8* | | | | | *108* | *109* | | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | | *101* | *104* | | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *100* | *99.5* | | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J0 | J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

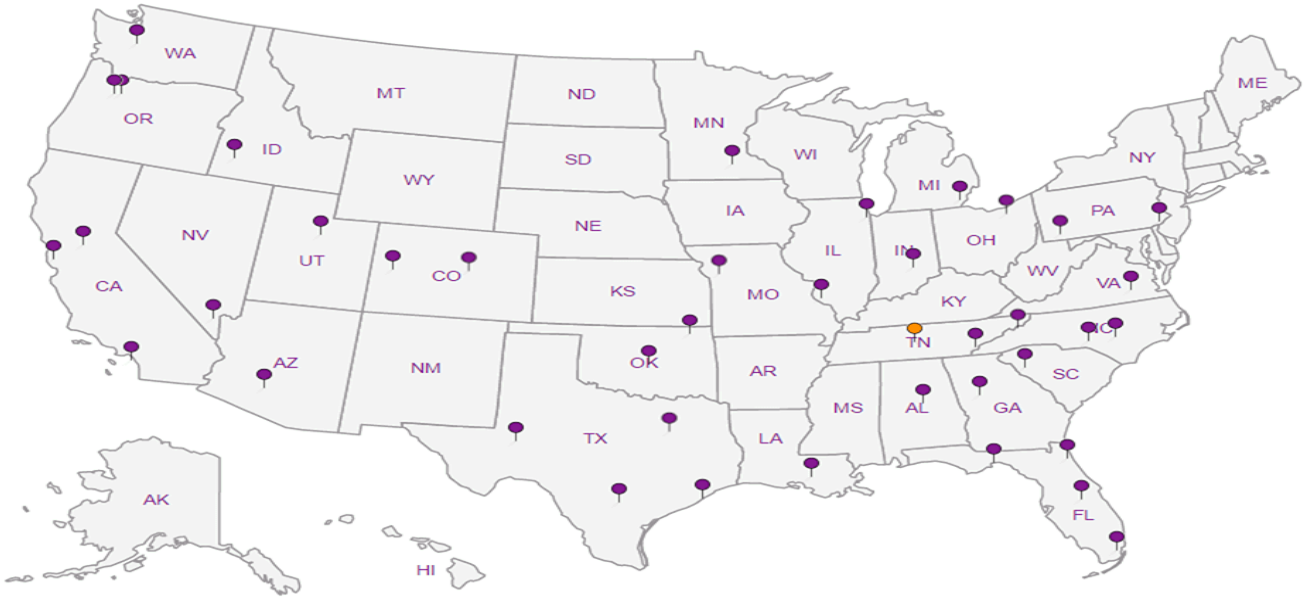
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Chris DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GEI-1-032417 | Grab | GW | 33 | 3.24.17 | 1000 | 9 | X | | X | X | X | X | | -01 |
| GEI-2-032417 | Grab | GW | 55 | 3/24/17 | 1115 | 9 | X | | X | X | X | X | | 02 |
| F-MW31-032417 | Grab | GW | 68 | 3/24/17 | 1235 | 9 | X | | X | X | X | X | | 03 |
| F-MW-30-032417 | Grab | GW | 64 | 3/24/17 | 1350 | 4 | | | | | X | | | 04 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L898272
1212

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17 GW
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7176 9011 7280

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| Chris DeBoer | 3/24/17 | 320pm | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 2.2° °C Bottles Received: 1011 31 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 3-25-17 Time: 9:06 | Hold: Condition: NCF / OK |

## Brian Ford

**From:** Bill Haldeman <bhaldeman@pesenv.com>
**Sent:** Wednesday, April 05, 2017 3:04 PM
**To:** Brian Ford
**Subject:** RE: ESC Lab Sciences Report for 1413.001.02.002 American Linen Supply L897952

Brian, looking at these results, I noticed that the PES sample names for the last two samples have typos. Can you change those at this point and reissue the report? If so, the third sample, listed as F-MW-31-032417, should be labeled as F-MW-131-032417, and the fourth sample, listed as F-MW-30-032417, should be labeled F-MW-3D-032417. Let me know if that is possible for both the pdf and EDD. Thanks! -Bill

---

**From:** bford@esclabsciences.com [mailto:bford@esclabsciences.com]
**Sent:** Thursday, March 30, 2017 3:32 PM
**To:** Bill Haldeman
**Subject:** ESC Lab Sciences Report for 1413.001.02.002 American Linen Supply L897952
**Importance:** High

Thank you for choosing ESC Lab Sciences!

Please find enclosed PDF report containing your laboratory analysis and chain of custody.

ESC is pleased to announce that we are accepting samples from 21 states for the new 3511 prep technique for PAHs by 8270 and 8270SIM. This technique allows for a 98% reduction in solvent usage, and requires only 2 to 3 40 mL non-preserved amber vials vs. the traditional 1 or 2 amber liter jars. Please contact your Technical Service Representative for details.

ESC is leading the laboratory industry with our On-line Data Management tools. Please contact your Technical Service Representative to learn how to create historical Excel tables or access data in real time using powerful and intuitive software that is only available at http://www.esclabsciences.com.

How are we doing? ESC would like to hear from you. Please take a moment and complete our customer feedback survey at https://www.surveymonkey.com/s/TCGLB7T.

ESC ... "Your Lab of Choice"

Brian Ford
Technical Service Representative
615-773-9772
bford@esclabsciences.com

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# MEMORANDUM

**TO:** Project File **DATE:** April 20, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 24, 2017- Groundwater Samples

**LAB:** ESC Lab ID L898272

---

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 24, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898272. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898272 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in one cooler and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for acetone were identified by the laboratory for samples GEI-1-032417, GEI-2-032417, and F-MW-131-032417 associated with analytical batch WG964788 (analyzed on March 28, 2017). The acetone result is qualified by the laboratory "J0" to indicate that percent difference for acetone CCV is outside of laboratory acceptance criteria. **Associated sample GEI-1-032417, GEI-2-032417, and F-MW-131-032417 results for acetone are detected less than the reporting detection limits (RDLs) and estimated (J).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following discussions:

- A low level naphthalene was reported in the method blank (WG964788). The detection is less than the RDL but greater than the method detection limit (MDL). Low level naphthalene detections are reported in associated samples GEI-1-032417, GEI-2-032417, and F-MW-131-032417. **All naphthalene results in associated samples are qualified as non-detect (U) due to blank contamination.**

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than low level alkalinity detection in the blank.

## Trip Blank Results

*USEPA Method 8260C:*
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample analyses were performed on a non-client sample within the analytical batch and on sample F-MW-131-032417. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples, and on client sample GEI-1-032417. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample analysis was performed on a non-client sample within the analytical batch. The primary/duplicate RPD for TOC analysis is within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSDs were analyzed with each analytical batch by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG964788) RPDs for compounds acrylonitrile, n-hexane, 2-butanone, and 4-methyl-2-pentanone (MIBK) are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water with the following discussion:

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was performed on sample F-MW-3D-032417. The MS/MSD percent recoveries for target analytes are within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. Laboratory notes indicate that the sample matrix interfered with the ability to make an accurate determination. **Compound 2CEVE result for sample F-MW-3D-032417 is rejected (R) and the data are not usable due to poor recovery.** For the remaining samples LCS/LCSD results are acceptable for this compound thereby demonstrating laboratory capability and accuracy. Refer to LCS/LCSD data for additional information on 2CEVE.

*Method RSK-175:*
MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Spike (MS) recovery for manganese is outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* Matrix spike analysis was performed on non-client samples within the analytical batch. MS % Rs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use with one exception:

- **Sample F-MW-3D-032417 result for VOC compound 2-chloroethyl vinyl ether (2CEVE) is rejected (R) and the result is not usable due to poor spike recoveries.**

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 564000 | | 2710 | 20000 | 1 | 03/28/2017 10:12 | WG964237 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 8870 | | 51.9 | 1000 | 1 | 03/25/2017 16:12 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 16:12 | WG964255 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/29/2017 18:17 | WG964927 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11700 | | 102 | 1000 | 1 | 03/28/2017 19:36 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 23800 | | 15.0 | 100 | 1 | 04/01/2017 14:37 | WG966184 |
| Manganese | 3100 | | 0.250 | 5.00 | 1 | 04/01/2017 14:37 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 20500 | | 11.5 | 27.1 | 40 | 04/03/2017 08:27 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 08:18 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:18 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.90 J | J J0 | 1.05 | 25.0 | 1 | 03/28/2017 18:21 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Naphthalene | 0.207 | w BJ | 0.174 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:21 | WG964788 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/28/2017 18:21 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 18:21 | WG964788 |
| *(S) Toluene-d8* | *99.5* | | | *80.0-120* | | *03/28/2017 18:21* | WG964788 |
| *(S) Dibromofluoromethane* | *95.1* | | | *76.0-123* | | *03/28/2017 18:21* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *101* | | | *80.0-120* | | *03/28/2017 18:21* | WG964788 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 420000 | | 2710 | 20000 | 1 | 03/28/2017 16:50 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 12500 | | 51.9 | 1000 | 1 | 03/25/2017 16:43 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 16:43 | WG964255 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/25/2017 16:43 | WG964255 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 8140 | | 102 | 1000 | 1 | 03/28/2017 19:50 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 24000 | | 15.0 | 100 | 1 | 04/01/2017 14:40 | WG966184 |
| Manganese | 898 | | 0.250 | 5.00 | 1 | 04/01/2017 14:40 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 15100 | | 11.5 | 27.1 | 40 | 04/03/2017 08:44 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 08:35 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:35 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.74 J | J J0 | 1.05 | 25.0 | 1 | 03/28/2017 18:41 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| cis-1,2-Dichloroethene | 2.25 | | 0.0933 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Naphthalene | 0.271 | B J | 0.174 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 18:41 | WG964788 |
| Vinyl chloride | 6.94 | | 0.118 | 0.500 | 1 | 03/28/2017 18:41 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 18:41 | WG964788 |
| *(S) Toluene-d8* | *99.3* | | | *80.0-120* | | *03/28/2017 18:41* | WG964788 |
| *(S) Dibromofluoromethane* | *97.4* | | | *76.0-123* | | *03/28/2017 18:41* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *100* | | | *80.0-120* | | *03/28/2017 18:41* | WG964788 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 166000 | | 2710 | 20000 | 1 | 03/28/2017 16:56 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 6120 | | 51.9 | 1000 | 1 | 03/25/2017 17:15 | WG964255 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/25/2017 17:15 | WG964255 |
| Sulfate | 738 | J J | 77.4 | 5000 | 1 | 03/25/2017 17:15 | WG964255 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2180 | | 102 | 1000 | 1 | 03/28/2017 20:05 | WG964476 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 598 | | 15.0 | 100 | 1 | 04/01/2017 14:52 | WG966184 |
| Manganese | 1030 | | 0.250 | 5.00 | 1 | 04/01/2017 14:52 | WG966184 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 159 | | 0.287 | 0.678 | 1 | 04/02/2017 08:52 | WG966467 |
| Ethane | 1.19 | J J | 0.296 | 1.29 | 1 | 04/02/2017 08:52 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 08:52 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.31 | J J J0 | 1.05 | 25.0 | 1 | 03/28/2017 19:01 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| cis-1,2-Dichloroethene | 45.6 | | 0.0933 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Naphthalene | 0.273 | BJ | 0.174 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/28/2017 19:01 | WG964788 |
| Vinyl chloride | 0.249 | J | 0.118 | 0.500 | 1 | 03/28/2017 19:01 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/28/2017 19:01 | WG964788 |
| *(S) Toluene-d8* | *98.5* | | | *80.0-120* | | *03/28/2017 19:01* | WG964788 |
| *(S) Dibromofluoromethane* | *96.7* | | | *76.0-123* | | *03/28/2017 19:01* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *99.8* | | | *80.0-120* | | *03/28/2017 19:01* | WG964788 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.89 J | J | 1.05 | 25.0 | 1 | 03/29/2017 18:55 | WG964788 |
| Acrylonitrile | U | J3 | 0.873 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Chloroethyl vinyl ether | U R | J6 | 0.877 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Styrene | U | | 0.117 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Toluene | U | | 0.412 | 1.00 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 03/29/2017 18:55 | WG964788 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 03/29/2017 18:55 | WG964788 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 03/29/2017 18:55 | WG964788 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *03/29/2017 18:55* | WG964788 |
| *(S) Dibromofluoromethane* | *101* | | | *76.0-123* | | *03/29/2017 18:55* | WG964788 |
| *(S) 4-Bromofluorobenzene* | *103* | | | *80.0-120* | | *03/29/2017 18:55* | WG964788 |

Cp
1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc
9

4/26/17

# ANALYTICAL REPORT

April 07, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L898516 |
| Samples Received: | 03/28/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## F13-032717 L898516-01 GW

Collected by: CD, SM
Collected date/time: 03/27/17 09:10
Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964734 | 1 | 03/28/17 17:09 | 03/28/17 17:09 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 15:43 | 03/28/17 15:43 | SAM |
| Wet Chemistry by Method 9060A | WG965719 | 1 | 03/31/17 23:51 | 03/31/17 23:51 | CSU |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:08 | JPD |
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966448 | 1 | 04/03/17 21:28 | 04/03/17 21:28 | ACG |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966467 | 1 | 04/02/17 12:11 | 04/02/17 12:11 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 11:50 | 04/04/17 11:50 | ACG |

## F9-032717 L898516-02 GW

Collected by: CD, SM
Collected date/time: 03/27/17 11:15
Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966448 | 1 | 04/04/17 00:08 | 04/04/17 00:08 | ACG |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 12:10 | 04/04/17 12:10 | ACG |

## M15-032717 L898516-03 GW

Collected by: CD, SM
Collected date/time: 03/27/17 09:30
Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964734 | 1 | 03/28/17 17:16 | 03/28/17 17:16 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 16:44 | 03/28/17 16:44 | SAM |
| Wet Chemistry by Method 9060A | WG965719 | 1 | 04/01/17 00:06 | 04/01/17 00:06 | CSU |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:11 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966467 | 1 | 04/02/17 12:28 | 04/02/17 12:28 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966662 | 20 | 04/03/17 10:24 | 04/03/17 10:24 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 12:31 | 04/04/17 12:31 | ACG |

## M15-D-032717 L898516-04 GW

Collected by: CD, SM
Collected date/time: 03/27/17 09:40
Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964934 | 1 | 03/29/17 07:53 | 03/29/17 07:53 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 17:15 | 03/28/17 17:15 | SAM |
| Wet Chemistry by Method 9060A | WG965719 | 1 | 04/01/17 00:20 | 04/01/17 00:20 | CSU |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:25 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966468 | 1 | 04/02/17 15:17 | 04/02/17 15:17 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 40 | 04/03/17 16:55 | 04/03/17 16:55 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 12:51 | 04/04/17 12:51 | ACG |

## G12-032717 L898516-05 GW

Collected by: CD, SM
Collected date/time: 03/27/17 10:25
Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 13:11 | 04/04/17 13:11 | ACG |

## J15-032717 L898516-06 GW

Collected by: CD, SM | Collected date/time: 03/27/17 11:35 | Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964934 | 1 | 03/29/17 08:09 | 03/29/17 08:09 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 17:46 | 03/28/17 17:46 | SAM |
| Wet Chemistry by Method 9060A | WG965719 | 1 | 04/01/17 00:37 | 04/01/17 00:37 | CSU |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:28 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966468 | 1 | 04/02/17 15:34 | 04/02/17 15:34 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 20 | 04/03/17 17:12 | 04/03/17 17:12 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/05/17 17:50 | 04/05/17 17:50 | LRL |

## W-MW-02-032717 L898516-07 GW

Collected by: CD, SM | Collected date/time: 03/27/17 13:50 | Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964934 | 1 | 03/29/17 08:16 | 03/29/17 08:16 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 18:17 | 03/28/17 18:17 | SAM |
| Wet Chemistry by Method 9056A | WG964797 | 50 | 03/28/17 18:32 | 03/28/17 18:32 | SAM |
| Wet Chemistry by Method 9060A | WG966368 | 5 | 04/03/17 13:47 | 04/03/17 13:47 | SJM |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:32 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966468 | 1 | 04/02/17 15:50 | 04/02/17 15:50 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 40 | 04/03/17 20:15 | 04/03/17 20:15 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 13:52 | 04/04/17 13:52 | ACG |

## MW-131-032717 L898516-08 GW

Collected by: CD, SM | Collected date/time: 03/27/17 13:50 | Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964934 | 1 | 03/29/17 08:23 | 03/29/17 08:23 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 18:48 | 03/28/17 18:48 | SAM |
| Wet Chemistry by Method 9056A | WG964797 | 50 | 03/28/17 19:34 | 03/28/17 19:34 | SAM |
| Wet Chemistry by Method 9060A | WG966368 | 1 | 04/03/17 14:03 | 04/03/17 14:03 | SJM |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:35 | JPD |
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966448 | 1 | 04/04/17 00:32 | 04/04/17 00:32 | ACG |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966468 | 1 | 04/02/17 16:07 | 04/02/17 16:07 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 50 | 04/03/17 17:29 | 04/03/17 17:29 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 14:12 | 04/04/17 14:12 | ACG |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 20 | 04/05/17 18:10 | 04/05/17 18:10 | LRL |

## MW107-032717 L898516-09 GW

Collected by: CD, SM | Collected date/time: 03/27/17 15:10 | Received date/time: 03/28/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG964934 | 1 | 03/29/17 08:30 | 03/29/17 08:30 | AMC |
| Wet Chemistry by Method 9056A | WG964797 | 1 | 03/28/17 19:49 | 03/28/17 19:49 | SAM |
| Wet Chemistry by Method 9056A | WG964797 | 50 | 03/28/17 20:05 | 03/28/17 20:05 | SAM |
| Wet Chemistry by Method 9060A | WG966368 | 5 | 04/03/17 22:52 | 04/03/17 22:52 | SJM |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 13:39 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966468 | 1 | 04/02/17 16:23 | 04/02/17 16:23 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 40 | 04/03/17 17:45 | 04/03/17 17:45 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/04/17 14:32 | 04/04/17 14:32 | ACG |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966242 | 1 | 04/05/17 18:31 | 04/05/17 18:31 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 266000 | | 2710 | 20000 | 1 | 03/28/2017 17:09 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 8850 | | 51.9 | 1000 | 1 | 03/28/2017 15:43 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 15:43 | WG964797 |
| Sulfate | 68300 | | 77.4 | 5000 | 1 | 03/28/2017 15:43 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10000 | | 102 | 1000 | 1 | 03/31/2017 23:51 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 24200 | | 15.0 | 100 | 1 | 04/04/2017 13:08 | WG965287 |
| Manganese | 651 | | 0.250 | 5.00 | 1 | 04/04/2017 13:08 | WG965287 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/03/2017 21:28 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/03/2017 21:28* | WG966448 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 510 | | 0.287 | 0.678 | 1 | 04/02/2017 12:11 | WG966467 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 12:11 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 12:11 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.42 | J | 1.05 | 25.0 | 1 | 04/04/2017 11:50 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| cis-1,2-Dichloroethene | 0.218 | J | 0.0933 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Vinyl chloride | 0.936 | | 0.118 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 11:50 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| *(S) Toluene-d8* | *96.1* | | | *80.0-120* | | *04/04/2017 11:50* | WG966242 |
| *(S) Dibromofluoromethane* | *91.2* | | | *76.0-123* | | *04/04/2017 11:50* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.1* | | | *80.0-120* | | *04/04/2017 11:50* | WG966242 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/04/2017 00:08 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/04/2017 00:08* | WG966448 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.40 | J | 1.05 | 25.0 | 1 | 04/04/2017 12:10 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Benzene | 0.529 | | 0.0896 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| cis-1,2-Dichloroethene | 0.158 | J | 0.0933 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,2-Dichloroethene | 0.539 | | 0.152 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Naphthalene | 0.195 | B J | 0.174 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Toluene | 2.04 | | 0.412 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:10 | WG966242 |
| *(S) Toluene-d8* | *95.7* | | | *80.0-120* | | *04/04/2017 12:10* | WG966242 |
| *(S) Dibromofluoromethane* | *93.0* | | | *76.0-123* | | *04/04/2017 12:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.6* | | | *80.0-120* | | *04/04/2017 12:10* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 830000 | | 2710 | 20000 | 1 | 03/28/2017 17:16 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 11600 | | 51.9 | 1000 | 1 | 03/28/2017 16:44 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 16:44 | WG964797 |
| Sulfate | 40400 | | 77.4 | 5000 | 1 | 03/28/2017 16:44 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11400 | | 102 | 1000 | 1 | 04/01/2017 00:06 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 3760 | | 15.0 | 100 | 1 | 04/04/2017 13:11 | WG965287 |
| Manganese | 6070 | | 0.250 | 5.00 | 1 | 04/04/2017 13:11 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 11500 | | 5.74 | 13.6 | 20 | 04/03/2017 10:24 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 12:28 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 12:28 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.45 | J | 1.05 | 25.0 | 1 | 04/04/2017 12:31 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloroethene | 0.631 | | 0.188 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| cis-1,2-Dichloroethene | 32.7 | | 0.0933 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,2-Dichloroethene | 0.561 | | 0.152 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Trichloroethene | 0.733 | | 0.153 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Vinyl chloride | 13.2 | | 0.118 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:31 | WG966242 |
| *(S) Toluene-d8* | *96.3* | | | *80.0-120* | | *04/04/2017 12:31* | WG966242 |
| *(S) Dibromofluoromethane* | *94.8* | | | *76.0-123* | | *04/04/2017 12:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.5* | | | *80.0-120* | | *04/04/2017 12:31* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 817000 | | 2710 | 20000 | 1 | 03/29/2017 07:53 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 11600 | | 51.9 | 1000 | 1 | 03/28/2017 17:15 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 17:15 | WG964797 |
| Sulfate | 40400 | | 77.4 | 5000 | 1 | 03/28/2017 17:15 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11700 | | 102 | 1000 | 1 | 04/01/2017 00:20 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 3770 | | 15.0 | 100 | 1 | 04/04/2017 13:25 | WG965287 |
| Manganese | 6170 | | 0.250 | 5.00 | 1 | 04/04/2017 13:25 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 10400 | | 11.5 | 27.1 | 40 | 04/03/2017 16:55 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:17 | WG966468 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 15:17 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.79 | J | 1.05 | 25.0 | 1 | 04/04/2017 12:51 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloroethane | 0.196 | J | 0.141 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloroethene | 0.588 | | 0.188 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| cis-1,2-Dichloroethene | 31.7 | | 0.0933 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,2-Dichloroethene | 0.513 | | 0.152 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Trichloroethene | 0.670 | | 0.153 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Vinyl chloride | 12.0 | | 0.118 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:51 | WG966242 |
| *(S) Toluene-d8* | *96.3* | | | *80.0-120* | | *04/04/2017 12:51* | WG966242 |
| *(S) Dibromofluoromethane* | *92.7* | | | *76.0-123* | | *04/04/2017 12:51* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.6* | | | *80.0-120* | | *04/04/2017 12:51* | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.71 | J | 1.05 | 25.0 | 1 | 04/04/2017 13:11 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Benzene | 0.243 | J | 0.0896 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloroethane | 0.344 | J | 0.141 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloroethene | 1.55 | | 0.188 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| cis-1,2-Dichloroethene | 95.9 | | 0.0933 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,2-Dichloroethene | 1.97 | | 0.152 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Trichloroethene | 0.233 | J | 0.153 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Vinyl chloride | 28.4 | | 0.118 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 13:11 | WG966242 |
| *(S) Toluene-d8* | *96.0* | | | *80.0-120* | | *04/04/2017 13:11* | WG966242 |
| *(S) Dibromofluoromethane* | *95.0* | | | *76.0-123* | | *04/04/2017 13:11* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.5* | | | *80.0-120* | | *04/04/2017 13:11* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 476000 | | 2710 | 20000 | 1 | 03/29/2017 08:09 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 24200 | | 51.9 | 1000 | 1 | 03/28/2017 17:46 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 17:46 | WG964797 |
| Sulfate | 55800 | | 77.4 | 5000 | 1 | 03/28/2017 17:46 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 20000 | | 102 | 1000 | 1 | 04/01/2017 00:37 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5520 | | 15.0 | 100 | 1 | 04/04/2017 13:28 | WG965287 |
| Manganese | 3340 | | 0.250 | 5.00 | 1 | 04/04/2017 13:28 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 3100 | | 5.74 | 13.6 | 20 | 04/03/2017 17:12 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:34 | WG966468 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 15:34 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.82 | J | 1.05 | 25.0 | 1 | 04/05/2017 17:50 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Benzene | 0.188 | J | 0.0896 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloroethene | 1.78 | | 0.188 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| cis-1,2-Dichloroethene | 46.3 | | 0.0933 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,2-Dichloroethene | 1.18 | | 0.152 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Toluene | 0.495 | J | 0.412 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Vinyl chloride | 6.99 | | 0.118 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 17:50 | WG966242 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 17:50* | WG966242 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 17:50* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *91.3* | | | *80.0-120* | | *04/05/2017 17:50* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 455000 | | 2710 | 20000 | 1 | 03/29/2017 08:16 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 142000 | | 2600 | 50000 | 50 | 03/28/2017 18:32 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 18:17 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 18:17 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 204000 | | 510 | 5000 | 5 | 04/03/2017 13:47 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 47500 | | 15.0 | 100 | 1 | 04/04/2017 13:32 | WG965287 |
| Manganese | 4120 | | 0.250 | 5.00 | 1 | 04/04/2017 13:32 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 6740 | | 11.5 | 27.1 | 40 | 04/03/2017 20:15 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:50 | WG966468 |
| Ethene | 8.32 | | 0.422 | 1.27 | 1 | 04/02/2017 15:50 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 19.3 | J | 1.05 | 25.0 | 1 | 04/04/2017 13:52 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Benzene | 0.270 | J | 0.0896 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloroethane | 0.204 | J | 0.141 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| cis-1,2-Dichloroethene | 33.0 | | 0.0933 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,2-Dichloroethene | 2.16 | | 0.152 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Butanone (MEK) | 13.8 | J3 | 1.28 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Toluene | 0.961 | J | 0.412 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Trichloroethene | 0.259 | J | 0.153 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Vinyl chloride | 36.4 | | 0.118 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 13:52 | WG966242 |
| *(S) Toluene-d8* | *96.4* | | | *80.0-120* | | *04/04/2017 13:52* | WG966242 |
| *(S) Dibromofluoromethane* | *97.1* | | | *76.0-123* | | *04/04/2017 13:52* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.8* | | | *80.0-120* | | *04/04/2017 13:52* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 911000 | | 2710 | 20000 | 1 | 03/29/2017 08:23 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 141000 | | 2600 | 50000 | 50 | 03/28/2017 19:34 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 18:48 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 18:48 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 8930 | | 102 | 1000 | 1 | 04/03/2017 14:03 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 7980 | | 15.0 | 100 | 1 | 04/04/2017 13:35 | WG965287 |
| Manganese | 1060 | | 0.250 | 5.00 | 1 | 04/04/2017 13:35 | WG965287 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 91.9 | J | 31.6 | 100 | 1 | 04/04/2017 00:32 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/04/2017 00:32* | WG966448 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 16200 | | 14.4 | 33.9 | 50 | 04/03/2017 17:29 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 16:07 | WG966468 |
| Ethene | 280 | | 0.422 | 1.27 | 1 | 04/02/2017 16:07 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.93 | J | 1.05 | 25.0 | 1 | 04/04/2017 14:12 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Benzene | 0.199 | J | 0.0896 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chloroethane | 0.462 | J | 0.141 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| cis-1,2-Dichloroethene | 243 | | 1.87 | 10.0 | 20 | 04/05/2017 18:10 | WG966242 |
| trans-1,2-Dichloroethene | 0.981 | | 0.152 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Toluene | 0.462 | J | 0.412 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Vinyl chloride | 804 | | 2.36 | 10.0 | 20 | 04/05/2017 18:10 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 14:12 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| *(S) Toluene-d8* | *98.2* | | | *80.0-120* | | *04/04/2017 14:12* | WG966242 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 18:10* | WG966242 |
| *(S) Dibromofluoromethane* | *91.0* | | | *76.0-123* | | *04/04/2017 14:12* | WG966242 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *91.2* | | | *80.0-120* | | *04/05/2017 18:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *98.5* | | | *80.0-120* | | *04/04/2017 14:12* | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 559000 | | 2710 | 20000 | 1 | 03/29/2017 08:30 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 122000 | | 2600 | 50000 | 50 | 03/28/2017 20:05 | WG964797 |
| Nitrate | 26.2 | J | 22.7 | 100 | 1 | 03/28/2017 19:49 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 19:49 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 147000 | | 510 | 5000 | 5 | 04/03/2017 22:52 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 17600 | | 15.0 | 100 | 1 | 04/04/2017 13:39 | WG965287 |
| Manganese | 1120 | | 0.250 | 5.00 | 1 | 04/04/2017 13:39 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 8380 | | 11.5 | 27.1 | 40 | 04/03/2017 17:45 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 16:23 | WG966468 |
| Ethene | 159 | | 0.422 | 1.27 | 1 | 04/02/2017 16:23 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 11.0 | J | 1.05 | 25.0 | 1 | 04/04/2017 14:32 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Benzene | 0.204 | J | 0.0896 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloroethane | 0.406 | J | 0.141 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| cis-1,2-Dichloroethene | 6.82 | | 0.0933 | 0.500 | 1 | 04/05/2017 18:31 | WG966242 |
| trans-1,2-Dichloroethene | 14.0 | | 0.152 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Tetrachloroethene | 0.224 | J | 0.199 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Toluene | 0.690 | J | 0.412 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Trichloroethene | 0.370 | J | 0.153 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Vinyl chloride | 34.5 | | 0.118 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 14:32 | WG966242 |
| *(S) Toluene-d8* | *96.9* | | | *80.0-120* | | *04/04/2017 14:32* | WG966242 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 18:31* | WG966242 |
| *(S) Dibromofluoromethane* | *92.8* | | | *76.0-123* | | *04/04/2017 14:32* | WG966242 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *93.6* | | | *80.0-120* | | *04/05/2017 18:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.1* | | | *80.0-120* | | *04/04/2017 14:32* | WG966242 |

## Method Blank (MB)

(MB) R3206451-2 03/28/17 13:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3680 | J | 2710 | 20000 |

## L898272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-03 03/28/17 16:56 • (DUP) R3206451-7 03/28/17 17:03

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 166000 | 162000 | 1 | 3.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206451-5 03/28/17 14:43 • (LCSD) R3206451-6 03/28/17 16:18

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 102000 | 92500 | 102 | 93.0 | 85.0-115 | | | 10.0 | 20 |

## Method Blank (MB)

(MB) R3206758-1 03/29/17 07:45

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | U | | 2710 | 20000 |

## L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 03/29/17 07:53 • (DUP) R3206758-3 03/29/17 08:01

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 817000 | 833000 | 1 | 2.00 | | 20 |

## L898583-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898583-04 03/29/17 10:36 • (DUP) R3206758-6 03/29/17 10:43

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 298000 | 296000 | 1 | 1.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206758-4 03/29/17 08:51 • (LCSD) R3206758-5 03/29/17 10:09

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 89600 | 95300 | 90.0 | 95.0 | 85.0-115 | | | 6.00 | 20 |

## Method Blank (MB)

(MB) R3206584-1 03/28/17 07:00

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L898514-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898514-01 03/28/17 11:50 • (DUP) R3206584-4 03/28/17 12:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Nitrate | 1760 | 1760 | 1 | 0 | | 15 |

## L898516-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-06 03/28/17 17:46 • (DUP) R3206584-6 03/28/17 18:02

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 24200 | 24200 | 1 | 0 | | 15 |
| Nitrate | U | 0.000 | 1 | 0 | | 15 |
| Sulfate | 55800 | 55900 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206584-2 03/28/17 07:16 • (LCSD) R3206584-3 03/28/17 07:31

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Chloride | 40000 | 39400 | 39400 | 98 | 99 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8050 | 8060 | 101 | 101 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 40300 | 40200 | 101 | 101 | 80-120 | | | 0 | 15 |

## L898514-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L898514-02 03/28/17 12:20 • (MS) R3206584-5 03/28/17 12:36

| Analyte | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | | % | |
| Nitrate | 5000 | ND | 4990 | 100 | 1 | 80-120 | |

## L898540-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898540-04 03/28/17 21:06 • (MS) R3206584-7 03/28/17 21:22 • (MSD) R3206584-8 03/28/17 21:37

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 5310 | 56400 | 56000 | 102 | 101 | 1 | 80-120 | | | 1 | 15 |
| Nitrate | 5000 | ND | 4970 | 5030 | 99 | 101 | 1 | 80-120 | | | 1 | 15 |
| Sulfate | 50000 | ND | 50500 | 50600 | 101 | 101 | 1 | 80-120 | | | 0 | 15 |

## Method Blank (MB)

(MB) R3207556-1 03/31/17 12:22

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L898246-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898246-04 03/31/17 20:33 • (DUP) R3207556-4 03/31/17 20:45

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | ND | 517 | 1 | 0 | | 20 |

## L898516-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-06 04/01/17 00:37 • (DUP) R3207556-7 04/01/17 00:55

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 20000 | 19900 | 1 | 1 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207556-2 03/31/17 16:20 • (LCSD) R3207556-3 03/31/17 18:41

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 75000 | 73100 | 73000 | 98 | 97 | 85-115 | | | 0 | 20 |

## L898246-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898246-05 03/31/17 21:01 • (MS) R3207556-5 03/31/17 21:19 • (MSD) R3207556-6 03/31/17 21:37

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 50000 | ND | 47000 | 46700 | 93 | 92 | 1 | 80-120 | | | 1 | 20 |

## Method Blank (MB)

(MB) R3207744-1 04/03/17 10:41

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L898812-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-01 04/03/17 14:40 • (DUP) R3207744-4 04/03/17 14:57

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 17900 | 17500 | 1 | 2 | | 20 |

## L899065-08 Original Sample (OS) • Duplicate (DUP)

(OS) L899065-08 04/03/17 21:07 • (DUP) R3207744-7 04/03/17 21:23

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 8950 | 8930 | 1 | 0 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207744-2 04/03/17 11:35 • (LCSD) R3207744-3 04/03/17 12:12

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 75000 | 71400 | 72600 | 95 | 97 | 85-115 | | | 2 | 20 |

## L899065-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899065-04 04/03/17 18:31 • (MS) R3207744-5 04/03/17 18:49 • (MSD) R3207744-6 04/03/17 19:06

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC (Total Organic Carbon) | 50000 | ND | 47700 | 47700 | 93 | 93 | 1 | 80-120 | | | 0 | 20 |

## Method Blank (MB)

(MB) R3208138-1 04/04/17 12:43

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208138-2 04/04/17 12:47 • (LCSD) R3208138-3 04/04/17 12:50

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5280 | 5170 | 106 | 103 | 80-120 | | | 2 | 20 |
| Manganese | 50.0 | 51.3 | 50.6 | 103 | 101 | 80-120 | | | 2 | 20 |

## L898812-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898812-08 04/04/17 12:54 • (MS) R3208138-5 04/04/17 13:01 • (MSD) R3208138-6 04/04/17 13:04

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 19700 | 24700 | 24700 | 100 | 99 | 1 | 75-125 | | | 0 | 20 |
| Manganese | 50.0 | 2270 | 2330 | 2330 | 127 | 119 | 1 | 75-125 | V | | 0 | 20 |

## Method Blank (MB)

(MB) R3208026-3 04/03/17 12:27

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208026-1 04/03/17 11:14 • (LCSD) R3208026-2 04/03/17 11:38

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | 6260 | 6090 | 114 | 111 | 72.0-134 | | | 2.75 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | *106* | *106* | *77.0-122* | | | | |

## L899390-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899390-06 04/04/17 02:57 • (MS) R3208026-4 04/04/17 03:22 • (MSD) R3208026-5 04/04/17 03:46

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | 7830 | 12500 | 12200 | 84.5 | 79.0 | 1 | 23.0-159 | E | E | 2.48 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | | *107* | *106* | | *77.0-122* | | | | |

## Method Blank (MB)

(MB) R3207637-1 04/02/17 07:29

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L898277-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898277-01 04/02/17 09:08 • (DUP) R3207637-2 04/02/17 10:48

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L898278-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898278-01 04/02/17 11:05 • (DUP) R3207637-3 04/02/17 14:10

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207637-4 04/02/17 14:27 • (LCSD) R3207637-5 04/02/17 14:44

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 70.0 | 70.0 | 103 | 103 | 70.0-130 | | | 0.100 | 20 |
| Ethane | 129 | 125 | 126 | 97.2 | 97.8 | 70.0-130 | | | 0.620 | 20 |
| Ethene | 127 | 125 | 126 | 98.4 | 99.0 | 70.0-130 | | | 0.700 | 20 |

## Method Blank (MB)

(MB) R3207638-1 04/02/17 15:00

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L898563-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898563-01 04/02/17 18:20 • (DUP) R3207638-2 04/02/17 18:37

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L898579-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898579-06 04/02/17 19:10 • (DUP) R3207638-3 04/02/17 21:40

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207638-4 04/02/17 21:56 • (LCSD) R3207638-5 04/02/17 22:13

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 129 | 122 | 126 | 94.6 | 97.5 | 70.0-130 | | | 3.03 | 20 |
| Ethene | 127 | 121 | 124 | 95.0 | 97.6 | 70.0-130 | | | 2.68 | 20 |

## Method Blank (MB)

(MB) R3207733-1 04/03/17 08:11

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898516-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-03 04/03/17 10:24 • (DUP) R3207733-2 04/03/17 11:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 11500 | 11900 | 1 | 3.67 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207733-3 04/03/17 11:31 • (LCSD) R3207733-4 04/03/17 11:47

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 72.3 | 73.0 | 107 | 108 | 70.0-130 | | | 0.890 | 20 |

## Method Blank (MB)

(MB) R3208060-1 04/03/17 16:39

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 04/03/17 16:55 • (DUP) R3208060-2 04/03/17 19:58

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 10400 | 11900 | 40 | 12.7 | | 20 |

## L898516-07 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-07 04/03/17 20:15 • (DUP) R3208060-3 04/03/17 23:18

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 6740 | 7950 | 40 | 16.5 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208060-4 04/03/17 23:34 • (LCSD) R3208060-5 04/03/17 23:51

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 72.0 | 69.3 | 106 | 102 | 70.0-130 | | | 3.85 | 20 |

## Method Blank (MB)

(MB) R3208413-3 04/04/17 10:10

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 |

## Method Blank (MB)

(MB) R3208413-3 04/04/17 10:10

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.176 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *94.9* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *98.2* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *95.9* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208413-1 04/04/17 09:09 • (LCSD) R3208413-2 04/04/17 09:29

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 119 | 146 | 95.1 | 117 | 10.0-160 | | | 20.4 | 23 |
| Acrylonitrile | 125 | 110 | 134 | 88.3 | 107 | 60.0-142 | | | 19.3 | 20 |
| Benzene | 25.0 | 20.8 | 21.5 | 83.4 | 86.2 | 69.0-123 | | | 3.27 | 20 |
| Bromobenzene | 25.0 | 24.0 | 26.0 | 96.0 | 104 | 79.0-120 | | | 8.06 | 20 |
| Bromodichloromethane | 25.0 | 22.6 | 24.4 | 90.3 | 97.6 | 76.0-120 | | | 7.75 | 20 |
| Bromochloromethane | 25.0 | 23.9 | 25.5 | 95.5 | 102 | 76.0-122 | | | 6.71 | 20 |
| Bromoform | 25.0 | 21.5 | 24.6 | 85.9 | 98.6 | 67.0-132 | | | 13.8 | 20 |
| Bromomethane | 25.0 | 20.7 | 23.1 | 83.0 | 92.3 | 18.0-160 | | | 10.7 | 20 |
| n-Butylbenzene | 25.0 | 26.4 | 26.7 | 106 | 107 | 72.0-126 | | | 1.31 | 20 |
| sec-Butylbenzene | 25.0 | 26.3 | 27.2 | 105 | 109 | 74.0-121 | | | 3.44 | 20 |
| tert-Butylbenzene | 25.0 | 24.1 | 24.8 | 96.5 | 99.3 | 75.0-122 | | | 2.81 | 20 |
| Carbon disulfide | 25.0 | 23.1 | 23.3 | 92.5 | 93.4 | 55.0-127 | | | 0.920 | 20 |
| Carbon tetrachloride | 25.0 | 21.4 | 21.5 | 85.7 | 85.9 | 63.0-122 | | | 0.250 | 20 |
| Chlorobenzene | 25.0 | 26.3 | 27.8 | 105 | 111 | 79.0-121 | | | 5.50 | 20 |
| Chlorodibromomethane | 25.0 | 25.5 | 28.4 | 102 | 114 | 75.0-125 | | | 10.6 | 20 |
| Chloroethane | 25.0 | 21.9 | 22.8 | 87.5 | 91.4 | 47.0-152 | | | 4.26 | 20 |
| Chloroform | 25.0 | 22.8 | 23.3 | 91.1 | 93.2 | 72.0-121 | | | 2.23 | 20 |
| Chloromethane | 25.0 | 22.0 | 22.2 | 88.1 | 88.9 | 48.0-139 | | | 0.980 | 20 |
| 2-Chlorotoluene | 25.0 | 26.4 | 27.6 | 106 | 110 | 74.0-122 | | | 4.24 | 20 |
| 4-Chlorotoluene | 25.0 | 26.6 | 28.1 | 107 | 112 | 79.0-120 | | | 5.26 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.6 | 27.7 | 90.5 | 111 | 64.0-127 | | J3 | 20.1 | 20 |
| 1,2-Dibromoethane | 25.0 | 23.3 | 26.2 | 93.0 | 105 | 77.0-123 | | | 12.1 | 20 |
| Dibromomethane | 25.0 | 20.3 | 22.5 | 81.4 | 90.1 | 78.0-120 | | | 10.1 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 26.3 | 27.4 | 105 | 110 | 80.0-120 | | | 4.33 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 25.9 | 27.5 | 103 | 110 | 72.0-123 | | | 6.11 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 25.4 | 26.2 | 101 | 105 | 77.0-120 | | | 3.12 | 20 |
| Dichlorodifluoromethane | 25.0 | 23.7 | 23.7 | 94.7 | 94.7 | 49.0-155 | | | 0.0500 | 20 |
| 1,1-Dichloroethane | 25.0 | 24.1 | 24.6 | 96.4 | 98.4 | 70.0-126 | | | 2.05 | 20 |
| 1,2-Dichloroethane | 25.0 | 22.8 | 24.4 | 91.1 | 97.6 | 67.0-126 | | | 6.89 | 20 |
| 1,1-Dichloroethene | 25.0 | 23.9 | 23.7 | 95.5 | 94.6 | 64.0-129 | | | 0.920 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 23.3 | 24.0 | 93.3 | 96.1 | 73.0-120 | | | 2.96 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 23.6 | 23.5 | 94.4 | 94.0 | 71.0-121 | | | 0.360 | 20 |
| 1,2-Dichloropropane | 25.0 | 23.8 | 26.0 | 95.2 | 104 | 75.0-125 | | | 8.87 | 20 |
| 1,1-Dichloropropene | 25.0 | 24.5 | 25.2 | 98.2 | 101 | 71.0-129 | | | 2.56 | 20 |
| 1,3-Dichloropropane | 25.0 | 24.1 | 27.5 | 96.5 | 110 | 80.0-121 | | | 12.9 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 25.4 | 27.8 | 102 | 111 | 79.0-123 | | | 9.03 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 24.9 | 28.4 | 99.8 | 113 | 74.0-127 | | | 12.9 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 21.0 | 26.3 | 84.2 | 105 | 55.0-134 | | J3 | 22.3 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.1 | 23.6 | 88.5 | 94.4 | 60.0-125 | | | 6.45 | 20 |
| Di-isopropyl ether | 25.0 | 22.1 | 23.2 | 88.3 | 92.8 | 59.0-133 | | | 5.04 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208413-1 04/04/17 09:09 • (LCSD) R3208413-2 04/04/17 09:29

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 25.0 | 23.3 | 24.5 | 93.1 | 97.8 | 77.0-120 | | | 4.95 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 27.1 | 27.0 | 109 | 108 | 64.0-131 | | | 0.570 | 20 |
| 2-Hexanone | 125 | 118 | 159 | 94.4 | 127 | 58.0-147 | | J3 | 29.7 | 20 |
| n-Hexane | 25.0 | 19.0 | 19.5 | 75.8 | 78.1 | 56.0-124 | | | 2.98 | 20 |
| Iodomethane | 125 | 115 | 117 | 92.1 | 93.6 | 57.0-140 | | | 1.59 | 20 |
| Isopropylbenzene | 25.0 | 23.3 | 24.2 | 93.2 | 96.7 | 75.0-120 | | | 3.68 | 20 |
| p-Isopropyltoluene | 25.0 | 27.5 | 28.3 | 110 | 113 | 74.0-126 | | | 2.87 | 20 |
| 2-Butanone (MEK) | 125 | 118 | 155 | 94.7 | 124 | 37.0-158 | | J3 | 27.0 | 20 |
| Methylene Chloride | 25.0 | 22.3 | 23.0 | 89.1 | 91.9 | 66.0-121 | | | 3.01 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 121 | 160 | 97.1 | 128 | 59.0-143 | | J3 | 27.3 | 20 |
| Methyl tert-butyl ether | 25.0 | 19.9 | 22.6 | 79.7 | 90.5 | 64.0-123 | | | 12.7 | 20 |
| Naphthalene | 25.0 | 20.4 | 22.9 | 81.7 | 91.7 | 62.0-128 | | | 11.5 | 20 |
| n-Propylbenzene | 25.0 | 23.5 | 24.4 | 94.0 | 97.5 | 79.0-120 | | | 3.69 | 20 |
| Styrene | 25.0 | 24.8 | 26.4 | 99.3 | 106 | 78.0-124 | | | 6.27 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 26.4 | 27.8 | 105 | 111 | 75.0-122 | | | 5.35 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.6 | 24.5 | 82.4 | 98.1 | 71.0-122 | | | 17.4 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 22.0 | 22.4 | 87.9 | 89.5 | 61.0-136 | | | 1.83 | 20 |
| Tetrachloroethene | 25.0 | 26.1 | 27.2 | 104 | 109 | 70.0-127 | | | 4.15 | 20 |
| Toluene | 25.0 | 20.6 | 21.9 | 82.4 | 87.8 | 77.0-120 | | | 6.29 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 26.3 | 27.9 | 105 | 111 | 61.0-133 | | | 5.96 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 27.4 | 28.4 | 109 | 114 | 69.0-129 | | | 3.82 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 22.8 | 23.3 | 91.1 | 93.1 | 68.0-122 | | | 2.19 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 21.9 | 24.9 | 87.4 | 99.8 | 78.0-120 | | | 13.2 | 20 |
| Trichloroethene | 25.0 | 24.3 | 25.8 | 97.2 | 103 | 78.0-120 | | | 5.91 | 20 |
| Trichlorofluoromethane | 25.0 | 23.4 | 25.1 | 93.4 | 101 | 56.0-137 | | | 7.36 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 22.9 | 27.3 | 91.7 | 109 | 72.0-124 | | | 17.4 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 26.0 | 27.1 | 104 | 108 | 75.0-120 | | | 4.23 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.1 | 23.6 | 92.3 | 94.5 | 75.0-120 | | | 2.36 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 25.9 | 26.8 | 104 | 107 | 75.0-120 | | | 3.16 | 20 |
| Vinyl acetate | 125 | 110 | 123 | 87.8 | 98.2 | 46.0-160 | | | 11.1 | 20 |
| Vinyl chloride | 25.0 | 24.2 | 24.3 | 96.9 | 97.0 | 64.0-133 | | | 0.120 | 20 |
| Xylenes, Total | 75.0 | 69.0 | 72.3 | 92.0 | 96.4 | 77.0-120 | | | 4.67 | 20 |
| *(S) Toluene-d8* | | | | *94.6* | *95.8* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *95.2* | *93.1* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *96.9* | *98.9* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| E | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | |
|---|---|
| Alabama | 40660 |
| Alaska | UST-080 |
| Arizona | AZ0612 |
| Arkansas | 88-0469 |
| California | 01157CA |
| Colorado | TN00003 |
| Conneticut | PH-0197 |
| Florida | E87487 |
| Georgia | NELAP |
| Georgia [1] | 923 |
| Idaho | TN00003 |
| Illinois | 200008 |
| Indiana | C-TN-01 |
| Iowa | 364 |
| Kansas | E-10277 |
| Kentucky [1] | 90010 |
| Kentucky [2] | 16 |
| Louisiana | AI30792 |
| Maine | TN0002 |
| Maryland | 324 |
| Massachusetts | M-TN003 |
| Michigan | 9958 |
| Minnesota | 047-999-395 |
| Mississippi | TN00003 |
| Missouri | 340 |
| Montana | CERT0086 |
| Nebraska | NE-OS-15-05 |
| Nevada | TN-03-2002-34 |
| New Hampshire | 2975 |
| New Jersey–NELAP | TN002 |
| New Mexico | TN00003 |
| New York | 11742 |
| North Carolina | Env375 |
| North Carolina [1] | DW21704 |
| North Carolina [2] | 41 |
| North Dakota | R-140 |
| Ohio–VAP | CL0069 |
| Oklahoma | 9915 |
| Oregon | TN200002 |
| Pennsylvania | 68-02979 |
| Rhode Island | 221 |
| South Carolina | 84004 |
| South Dakota | n/a |
| Tennessee [1 4] | 2006 |
| Texas | T 104704245-07-TX |
| Texas [5] | LAB0152 |
| Utah | 6157585858 |
| Vermont | VT2006 |
| Virginia | 109 |
| Washington | C1915 |
| West Virginia | 233 |
| Wisconsin | 9980939910 |
| Wyoming | A2LA |

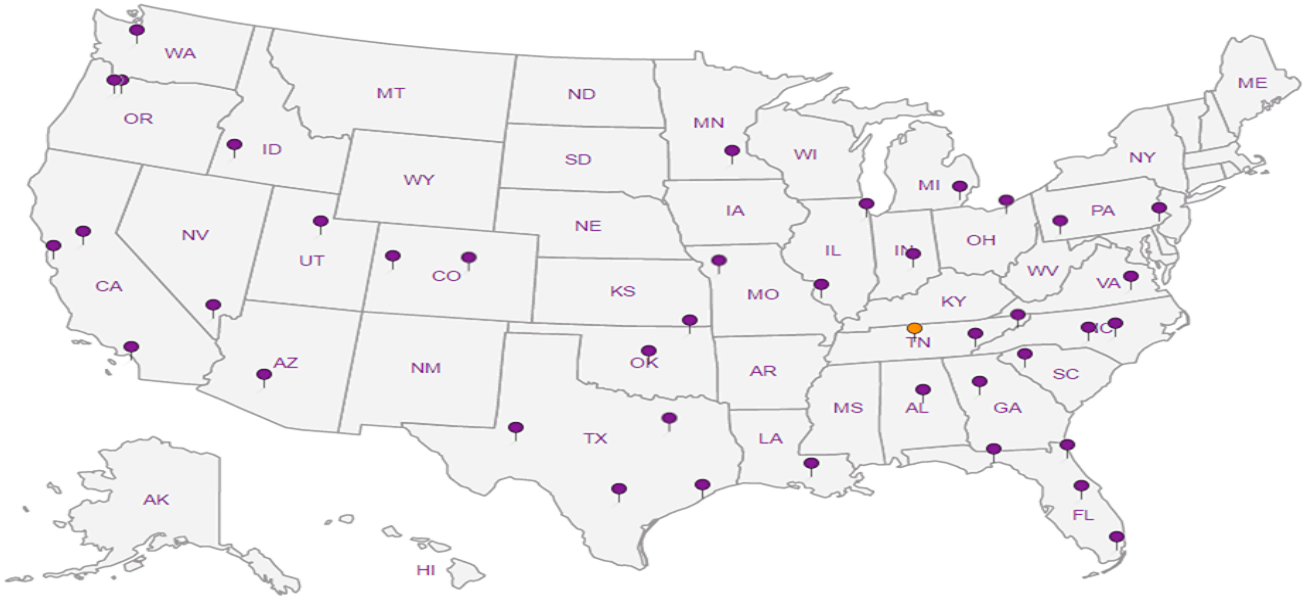
## Third Party & Federal Accreditations

| | |
|---|---|
| A2LA – ISO 17025 | 1461.01 |
| A2LA – ISO 17025 [5] | 1461.02 |
| Canada | 1461.01 |
| EPA–Crypto | TN00003 |
| AIHA-LAP,LLC | 100789 |
| DOD | 1461.01 |
| USDA | S-67674 |

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Chris DeBoer, Shannon McKinney

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page ___ of ___

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L898516
1243

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17G
Shipped Via: FedEX Ground

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F13-032717 | Grab | GW | 25 | 3/27/17 | 910 | 11 | X | X | X | X | X | X | | -01 |
| F9-032717 | Grab | GW | 25 | 3/27/17 | 1115 | 6 | | X | | | X | | | 02 |
| M15-032717 | Grab | GW | 25 | 3/27/17 | 930 | 9 | X | | X | X | X | X | | 03 |
| M15-D-032717 | Grab | GW | 25 | 3/27/17 | 940 | 9 | X | | X | X | X | X | | 04 |
| Co12-032717 | Grab | GW | 25 | 3/27/17 | 1025 | 4 | | | | | X | | | 05 |
| J15-032717 | Grab | GW | 25 | 3/27/17 | 1135 | 9 | X | | X | X | X | X | | 06 |
| ~~MW-13~~ MW13-032717 | GRAB | GW | | 3/27/17 | 1350 | 11 | X | X | X | X | X | X | (HCl) (N) | |
| W-MW-02-032717 | Grab | GW | 75 | 3/27/17 | 1350 | 9 | X | | X | X | X | X | | 07 |
| MW-13-032717 | GRAB | GW | 49 | 3/27/17 | 1350 | 11 | X | X | X | X | X | X | | 08 |
| MW107-032717 | GRAB | GW | 40 | 3/27/17 | 1510 | 9 | X | | X | X | X | X | | 09 |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris DeBoer | 3/27/17 | 1600 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: Yes / No (?) HCL / MeoH TBR

Temp: 3.4 NT °C Bottles Received: 11

Date: 3-28-17 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

# MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 27, 2017- Groundwater Samples

**LAB:** ESC Lab ID L898516

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Nine (9) groundwater samples including a field duplicate sample were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 27, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition; 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898516. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898516 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*NWTPH-Gx Method:*
All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level naphthalene detection was reported in the method blank (Batch WG966242). Detection is less than the RDL but greater than the method detection limit (MDL). A naphthalene detection is reported in associated sample F9-032717. **Naphthalene result in sample F9-032717 is qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*
A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs) and NWTPH-Gx:*
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates M15-032717 and M15-D-032717 were evaluated for overall precision. Field duplicate results are comparable and less than 20% RPD.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*NWTPH-Gx Method:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample was performed on a client sample from a different SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples, and on client sample J15-032717. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample and on sample J15-032717. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG966242) RPDs for compounds 1,2-dibromo-3-chloropropane, trans-1,4-dichloro-2-butene, 2-hexanone, 2-butanone (MEK), and 4-methyl-2-pentanone (MIBK) are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

*NWTPH-Gx Method:*
LCS/LCSD was analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* LCS/LCSDs were analyzed by SM Method 2320. The LCS/LCSD %Rs' and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*NWTPH-Gx Method:*
Matrix spike analysis was performed on a non-client sample within the analytical batch.

MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water for each analytical batch with the following discussion:

- MS/MSD recoveries for gasoline are within laboratory acceptance criteria however results are qualified (E) by the laboratory because the spiked results exceed the upper limit of the calibration range. No action was taken other than to note that the matrix spike was performed on a non-client sample. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*
Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a client sample from a different SDG within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Matrix spike recovery for manganese was slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 266000 | | 2710 | 20000 | 1 | 03/28/2017 17:09 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 8850 | | 51.9 | 1000 | 1 | 03/28/2017 15:43 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 15:43 | WG964797 |
| Sulfate | 68300 | | 77.4 | 5000 | 1 | 03/28/2017 15:43 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10000 | | 102 | 1000 | 1 | 03/31/2017 23:51 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 24200 | | 15.0 | 100 | 1 | 04/04/2017 13:08 | WG965287 |
| Manganese | 651 | | 0.250 | 5.00 | 1 | 04/04/2017 13:08 | WG965287 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/03/2017 21:28 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/03/2017 21:28* | WG966448 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 510 | | 0.287 | 0.678 | 1 | 04/02/2017 12:11 | WG966467 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 12:11 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 12:11 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.42 | J J | 1.05 | 25.0 | 1 | 04/04/2017 11:50 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| cis-1,2-Dichloroethene | 0.218 J | J | 0.0933 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 11:50 | WG966242 |
| Vinyl chloride | 0.936 | | 0.118 | 0.500 | 1 | 04/04/2017 11:50 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 11:50 | WG966242 |

Cp
2 Tc
3 Ss
4 Cn
Sr
6 Qc
7 Gl
8 Al
9 Sc

JC 4/21/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| *(S) Toluene-d8* | *96.1* | | | *80.0-120* | | *04/04/2017 11:50* | WG966242 |
| *(S) Dibromofluoromethane* | *91.2* | | | *76.0-123* | | *04/04/2017 11:50* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.1* | | | *80.0-120* | | *04/04/2017 11:50* | WG966242 |



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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/04/2017 00:08 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/04/2017 00:08* | WG966448 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.40 J | J | 1.05 | 25.0 | 1 | 04/04/2017 12:10 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Benzene | 0.529 | | 0.0896 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| cis-1,2-Dichloroethene | 0.158 J | J | 0.0933 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,2-Dichloroethene | 0.539 | | 0.152 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Naphthalene | 0.195 | B J | 0.174 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Toluene | 2.04 | | 0.412 | 1.00 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:10 | WG966242 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/04/2017 12:10 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:10 | WG966242 |
| *(S) Toluene-d8* | *95.7* | | | *80.0-120* | | *04/04/2017 12:10* | WG966242 |
| *(S) Dibromofluoromethane* | *93.0* | | | *76.0-123* | | *04/04/2017 12:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.6* | | | *80.0-120* | | *04/04/2017 12:10* | WG966242 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 830000 | | 2710 | 20000 | 1 | 03/28/2017 17:16 | WG964734 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 11600 | | 51.9 | 1000 | 1 | 03/28/2017 16:44 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 16:44 | WG964797 |
| Sulfate | 40400 | | 77.4 | 5000 | 1 | 03/28/2017 16:44 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11400 | | 102 | 1000 | 1 | 04/01/2017 00:06 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 3760 | | 15.0 | 100 | 1 | 04/04/2017 13:11 | WG965287 |
| Manganese | 6070 | | 0.250 | 5.00 | 1 | 04/04/2017 13:11 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 11500 | | 5.74 | 13.6 | 20 | 04/03/2017 10:24 | WG966662 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 12:28 | WG966467 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 12:28 | WG966467 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.45 J | J | 1.05 | 25.0 | 1 | 04/04/2017 12:31 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 817000 | | 2710 | 20000 | 1 | 03/29/2017 07:53 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 11600 | | 51.9 | 1000 | 1 | 03/28/2017 17:15 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 17:15 | WG964797 |
| Sulfate | 40400 | | 77.4 | 5000 | 1 | 03/28/2017 17:15 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 11700 | | 102 | 1000 | 1 | 04/01/2017 00:20 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 3770 | | 15.0 | 100 | 1 | 04/04/2017 13:25 | WG965287 |
| Manganese | 6170 | | 0.250 | 5.00 | 1 | 04/04/2017 13:25 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 10400 | | 11.5 | 27.1 | 40 | 04/03/2017 16:55 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:17 | WG966468 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 15:17 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.79 J | J | 1.05 | 25.0 | 1 | 04/04/2017 12:51 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloroethane | 0.196 J | J | 0.141 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloroethene | 0.631 | | 0.188 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| cis-1,2-Dichloroethene | 32.7 | | 0.0933 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,2-Dichloroethene | 0.561 | | 0.152 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Trichloroethene | 0.733 | | 0.153 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:31 | WG966242 |
| Vinyl chloride | 13.2 | | 0.118 | 0.500 | 1 | 04/04/2017 12:31 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:31 | WG966242 |
| *(S) Toluene-d8* | *96.3* | | | *80.0-120* | | *04/04/2017 12:31* | WG966242 |
| *(S) Dibromofluoromethane* | *94.8* | | | *76.0-123* | | *04/04/2017 12:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.5* | | | *80.0-120* | | *04/04/2017 12:31* | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloroethene | 0.588 | | 0.188 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| cis-1,2-Dichloroethene | 31.7 | | 0.0933 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,2-Dichloroethene | 0.513 | | 0.152 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Trichloroethene | 0.670 | | 0.153 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 12:51 | WG966242 |
| Vinyl chloride | 12.0 | | 0.118 | 0.500 | 1 | 04/04/2017 12:51 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 12:51 | WG966242 |
| *(S) Toluene-d8* | *96.3* | | | *80.0-120* | | *04/04/2017 12:51* | WG966242 |
| *(S) Dibromofluoromethane* | *92.7* | | | *76.0-123* | | *04/04/2017 12:51* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.6* | | | *80.0-120* | | *04/04/2017 12:51* | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|---|
| | ug/l | | | ug/l | ug/l | | date / time | |
| Acetone | 2.71 | J | J | 1.05 | 25.0 | 1 | 04/04/2017 13:11 | WG966242 |
| Acrylonitrile | U | | | 0.873 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Benzene | 0.243 | J | J | 0.0896 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromobenzene | U | | | 0.133 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromodichloromethane | U | | | 0.0800 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromochloromethane | U | | | 0.145 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromoform | U | | | 0.186 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Bromomethane | U | | | 0.157 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Butylbenzene | U | | | 0.143 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| sec-Butylbenzene | U | | | 0.134 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| tert-Butylbenzene | U | | | 0.183 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Carbon disulfide | U | | | 0.101 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Carbon tetrachloride | U | | | 0.159 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chlorobenzene | U | | | 0.140 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chlorodibromomethane | U | | | 0.128 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloroethane | 0.344 | J | J | 0.141 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloroform | U | | | 0.0860 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Chloromethane | U | | | 0.153 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Chlorotoluene | U | | | 0.111 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 4-Chlorotoluene | U | | | 0.0972 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | | J3 | 0.325 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dibromoethane | U | | | 0.193 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Dibromomethane | U | | | 0.117 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichlorobenzene | U | | | 0.101 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3-Dichlorobenzene | U | | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,4-Dichlorobenzene | U | | | 0.121 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Dichlorodifluoromethane | U | | | 0.127 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloroethane | U | | | 0.114 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichloroethane | U | | | 0.108 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloroethene | 1.55 | | | 0.188 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| cis-1,2-Dichloroethene | 95.9 | | | 0.0933 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,2-Dichloroethene | 1.97 | | | 0.152 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2-Dichloropropane | U | | | 0.190 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1-Dichloropropene | U | | | 0.128 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3-Dichloropropane | U | | | 0.147 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| cis-1,3-Dichloropropene | U | | | 0.0976 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,3-Dichloropropene | U | | | 0.222 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | | J3 | 0.257 | 5.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 2,2-Dichloropropane | U | | | 0.0929 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Di-isopropyl ether | U | | | 0.0924 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Ethylbenzene | U | | | 0.158 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Hexachloro-1,3-butadiene | U | | | 0.157 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Hexanone | U | | J3 | 0.757 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Hexane | U | | | 0.305 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| Iodomethane | U | | | 0.377 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Isopropylbenzene | U | | | 0.126 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| p-Isopropyltoluene | U | | | 0.138 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 2-Butanone (MEK) | U | | J3 | 1.28 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Methylene Chloride | U | | | 1.07 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | | J3 | 0.823 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Methyl tert-butyl ether | U | | | 0.102 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Naphthalene | U | | | 0.174 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| n-Propylbenzene | U | | | 0.162 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Styrene | U | | | 0.117 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | | 0.120 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Trichloroethene | 0.233 | J J | 0.153 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 13:11 | WG966242 |
| Vinyl chloride | 28.4 | | 0.118 | 0.500 | 1 | 04/04/2017 13:11 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 13:11 | WG966242 |
| *(S) Toluene-d8* | *96.0* | | | *80.0-120* | | *04/04/2017 13:11* | WG966242 |
| *(S) Dibromofluoromethane* | *95.0* | | | *76.0-123* | | *04/04/2017 13:11* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *97.5* | | | *80.0-120* | | *04/04/2017 13:11* | WG966242 |

Cp
1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc
9

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 476000 | | 2710 | 20000 | 1 | 03/29/2017 08:09 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 24200 | | 51.9 | 1000 | 1 | 03/28/2017 17:46 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 17:46 | WG964797 |
| Sulfate | 55800 | | 77.4 | 5000 | 1 | 03/28/2017 17:46 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 20000 | | 102 | 1000 | 1 | 04/01/2017 00:37 | WG965719 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 5520 | | 15.0 | 100 | 1 | 04/04/2017 13:28 | WG965287 |
| Manganese | 3340 | | 0.250 | 5.00 | 1 | 04/04/2017 13:28 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 3100 | | 5.74 | 13.6 | 20 | 04/03/2017 17:12 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:34 | WG966468 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/02/2017 15:34 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.82 J | J | 1.05 | 25.0 | 1 | 04/05/2017 17:50 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Benzene | 0.188 J | J | 0.0896 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloroethene | 1.78 | | 0.188 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| cis-1,2-Dichloroethene | 46.3 | | 0.0933 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,2-Dichloroethene | 1.18 | | 0.152 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Toluene | 0.495 | J J | 0.412 | 1.00 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 17:50 | WG966242 |
| Vinyl chloride | 6.99 | | 0.118 | 0.500 | 1 | 04/05/2017 17:50 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 17:50 | WG966242 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 17:50* | WG966242 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 17:50* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *91.3* | | | *80.0-120* | | *04/05/2017 17:50* | WG966242 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 455000 | | 2710 | 20000 | 1 | 03/29/2017 08:16 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 142000 | | 2600 | 50000 | 50 | 03/28/2017 18:32 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 18:17 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 18:17 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 204000 | | 510 | 5000 | 5 | 04/03/2017 13:47 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 47500 | | 15.0 | 100 | 1 | 04/04/2017 13:32 | WG965287 |
| Manganese | 4120 | | 0.250 | 5.00 | 1 | 04/04/2017 13:32 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 6740 | | 11.5 | 27.1 | 40 | 04/03/2017 20:15 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 15:50 | WG966468 |
| Ethene | 8.32 | | 0.422 | 1.27 | 1 | 04/02/2017 15:50 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 19.3 | J J | 1.05 | 25.0 | 1 | 04/04/2017 13:52 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Benzene | 0.270 | J J | 0.0896 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloroethane | 0.204 | J J | 0.141 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| cis-1,2-Dichloroethene | 33.0 | | 0.0933 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,2-Dichloroethene | 2.16 | | 0.152 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 2-Butanone (MEK) | 13.8 | J3 | 1.28 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Toluene | 0.961 J | J | 0.412 | 1.00 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Trichloroethene | 0.259 J | J | 0.153 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 13:52 | WG966242 |
| Vinyl chloride | 36.4 | | 0.118 | 0.500 | 1 | 04/04/2017 13:52 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 13:52 | WG966242 |
| *(S) Toluene-d8* | *96.4* | | | *80.0-120* | | *04/04/2017 13:52* | WG966242 |
| *(S) Dibromofluoromethane* | *97.1* | | | *76.0-123* | | *04/04/2017 13:52* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.8* | | | *80.0-120* | | *04/04/2017 13:52* | WG966242 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 911000 | | 2710 | 20000 | 1 | 03/29/2017 08:23 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 141000 | | 2600 | 50000 | 50 | 03/28/2017 19:34 | WG964797 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/28/2017 18:48 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 18:48 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 8930 | | 102 | 1000 | 1 | 04/03/2017 14:03 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 7980 | | 15.0 | 100 | 1 | 04/04/2017 13:35 | WG965287 |
| Manganese | 1060 | | 0.250 | 5.00 | 1 | 04/04/2017 13:35 | WG965287 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 91.9 | J J | 31.6 | 100 | 1 | 04/04/2017 00:32 | WG966448 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *104* | | | *77.0-122* | | *04/04/2017 00:32* | WG966448 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 16200 | | 14.4 | 33.9 | 50 | 04/03/2017 17:29 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 16:07 | WG966468 |
| Ethene | 280 | | 0.422 | 1.27 | 1 | 04/02/2017 16:07 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.93 | J J | 1.05 | 25.0 | 1 | 04/04/2017 14:12 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Benzene | 0.199 | J J | 0.0896 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chloroethane | 0.462 | J J | 0.141 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| cis-1,2-Dichloroethene | 243 | | 1.87 | 10.0 | 20 | 04/05/2017 18:10 | WG966242 |
| trans-1,2-Dichloroethene | 0.981 | | 0.152 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Toluene | 0.462 | J J | 0.412 | 1.00 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 14:12 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 14:12 | WG966242 |
| Vinyl chloride | 804 | | 2.36 | 10.0 | 20 | 04/05/2017 18:10 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 14:12 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| *(S) Toluene-d8* | *98.2* | | | *80.0-120* | | *04/04/2017 14:12* | WG966242 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 18:10* | WG966242 |
| *(S) Dibromofluoromethane* | *91.0* | | | *76.0-123* | | *04/04/2017 14:12* | WG966242 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *91.2* | | | *80.0-120* | | *04/05/2017 18:10* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *98.5* | | | *80.0-120* | | *04/04/2017 14:12* | WG966242 |



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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 559000 | | 2710 | 20000 | 1 | 03/29/2017 08:30 | WG964934 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 122000 | | 2600 | 50000 | 50 | 03/28/2017 20:05 | WG964797 |
| Nitrate | 26.2 | J J | 22.7 | 100 | 1 | 03/28/2017 19:49 | WG964797 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/28/2017 19:49 | WG964797 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 147000 | | 510 | 5000 | 5 | 04/03/2017 22:52 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 17600 | | 15.0 | 100 | 1 | 04/04/2017 13:39 | WG965287 |
| Manganese | 1120 | | 0.250 | 5.00 | 1 | 04/04/2017 13:39 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 8380 | | 11.5 | 27.1 | 40 | 04/03/2017 17:45 | WG966793 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/02/2017 16:23 | WG966468 |
| Ethene | 159 | | 0.422 | 1.27 | 1 | 04/02/2017 16:23 | WG966468 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 11.0 | J J | 1.05 | 25.0 | 1 | 04/04/2017 14:32 | WG966242 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Benzene | 0.204 | J J | 0.0896 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloroethane | 0.406 | J J | 0.141 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dibromo-3-Chloropropane | U | J3 | 0.325 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| cis-1,2-Dichloroethene | 6.82 | | 0.0933 | 0.500 | 1 | 04/05/2017 18:31 | WG966242 |
| trans-1,2-Dichloroethene | 14.0 | | 0.152 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| trans-1,4-Dichloro-2-butene | U | J3 | 0.257 | 5.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Hexanone | U | J3 | 0.757 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 2-Butanone (MEK) | U | J3 | 1.28 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| 4-Methyl-2-pentanone (MIBK) | U | J3 | 0.823 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Tetrachloroethene | 0.224 J | J | 0.199 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Toluene | 0.690 J | J | 0.412 | 1.00 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Trichloroethene | 0.370 J | J | 0.153 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/04/2017 14:32 | WG966242 |
| Vinyl chloride | 34.5 | | 0.118 | 0.500 | 1 | 04/04/2017 14:32 | WG966242 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/04/2017 14:32 | WG966242 |
| *(S) Toluene-d8* | *96.9* | | | *80.0-120* | | *04/04/2017 14:32* | WG966242 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 18:31* | WG966242 |
| *(S) Dibromofluoromethane* | *92.8* | | | *76.0-123* | | *04/04/2017 14:32* | WG966242 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *93.6* | | | *80.0-120* | | *04/05/2017 18:31* | WG966242 |
| *(S) 4-Bromofluorobenzene* | *96.1* | | | *80.0-120* | | *04/04/2017 14:32* | WG966242 |

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# ANALYTICAL REPORT

April 07, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L898812 |
| Samples Received: | 03/29/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW121-032817 L898812-01 GW

Collected by: CD / SM
Collected date/time: 03/28/17 09:15
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965169 | 1 | 03/29/17 13:23 | 03/29/17 13:23 | AMC |
| Wet Chemistry by Method 9056A | WG965193 | 1 | 03/29/17 15:16 | 03/29/17 15:16 | KCF |
| Wet Chemistry by Method 9056A | WG965193 | 20 | 03/29/17 15:32 | 03/29/17 15:32 | KCF |
| Wet Chemistry by Method 9060A | WG966368 | 1 | 04/03/17 14:40 | 04/03/17 14:40 | SJM |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 14:30 | JPD |
| Metals (ICPMS) by Method 6020 | WG965287 | 2 | 04/03/17 09:56 | 04/04/17 14:51 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 1 | 04/03/17 20:31 | 04/03/17 20:31 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 19:11 | 04/05/17 19:11 | LRL |

## F5-032817 L898812-02 GW

Collected by: CD / SM
Collected date/time: 03/28/17 10:20
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966451 | 1 | 04/03/17 13:59 | 04/03/17 13:59 | DWR |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 19:32 | 04/05/17 19:32 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 10 | 04/06/17 17:37 | 04/06/17 17:37 | JHH |

## MW120-032817 L898812-03 GW

Collected by: CD / SM
Collected date/time: 03/28/17 10:40
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 19:52 | 04/05/17 19:52 | LRL |

## MW126-032817 L898812-04 GW

Collected by: CD / SM
Collected date/time: 03/28/17 12:00
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 20:12 | 04/05/17 20:12 | LRL |

## SCL-MW105-032817 L898812-05 GW

Collected by: CD / SM
Collected date/time: 03/28/17 12:05
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 5 | 04/05/17 20:33 | 04/05/17 20:33 | LRL |

## SCL-MW102-032817 L898812-06 GW

Collected by: CD / SM
Collected date/time: 03/28/17 13:02
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 20:53 | 04/05/17 20:53 | LRL |

## MW122-032817 L898812-07 GW

Collected by: CD / SM
Collected date/time: 03/28/17 13:40
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 21:13 | 04/05/17 21:13 | LRL |

## MW108-032817 L898812-08 GW

Collected by: CD / SM
Collected date/time: 03/28/17 14:30
Received date/time: 03/29/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965169 | 1 | 03/29/17 13:30 | 03/29/17 13:30 | AMC |
| Wet Chemistry by Method 9056A | WG965193 | 1 | 03/29/17 15:47 | 03/29/17 15:47 | KCF |
| Wet Chemistry by Method 9056A | WG965193 | 20 | 03/29/17 16:02 | 03/29/17 16:02 | KCF |
| Wet Chemistry by Method 9060A | WG966368 | 1 | 04/03/17 15:10 | 04/03/17 15:10 | SJM |
| Metals (ICPMS) by Method 6020 | WG965287 | 1 | 04/03/17 09:56 | 04/04/17 12:54 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966793 | 1 | 04/03/17 20:48 | 04/03/17 20:48 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG967102 | 10 | 04/04/17 15:06 | 04/04/17 15:06 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 21:33 | 04/05/17 21:33 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 5 | 04/06/17 17:50 | 04/06/17 17:50 | JHH |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 848000 | | 2710 | 20000 | 1 | 03/29/2017 13:23 | WG965169 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 12200 | | 51.9 | 1000 | 1 | 03/29/2017 15:16 | WG965193 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/29/2017 15:16 | WG965193 |
| Sulfate | 643000 | | 1550 | 100000 | 20 | 03/29/2017 15:32 | WG965193 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 17900 | | 102 | 1000 | 1 | 04/03/2017 14:40 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 33300 | | 15.0 | 100 | 1 | 04/04/2017 14:30 | WG965287 |
| Manganese | 13200 | | 0.500 | 10.0 | 2 | 04/04/2017 14:51 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 479 | | 0.287 | 0.678 | 1 | 04/03/2017 20:31 | WG966793 |
| Ethane | 2.04 | | 0.296 | 1.29 | 1 | 04/03/2017 20:31 | WG966793 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/03/2017 20:31 | WG966793 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.32 | J | 1.05 | 25.0 | 1 | 04/05/2017 19:11 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| cis-1,2-Dichloroethene | 0.768 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Vinyl chloride | 5.82 | | 0.118 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:11 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 19:11* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 19:11* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.2* | | | *80.0-120* | | *04/05/2017 19:11* | WG966572 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 234 | | 31.6 | 100 | 1 | 04/03/2017 13:59 | WG966451 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *99.6* | | | *77.0-122* | | *04/03/2017 13:59* | WG966451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 38.3 | | 1.05 | 25.0 | 1 | 04/05/2017 19:32 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Benzene | 0.515 | | 0.0896 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Carbon disulfide | 0.202 | J | 0.101 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloroethane | 0.769 | | 0.141 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloroethene | 0.743 | | 0.188 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| cis-1,2-Dichloroethene | 516 | | 0.933 | 5.00 | 10 | 04/06/2017 17:37 | WG966572 |
| trans-1,2-Dichloroethene | 4.31 | | 0.152 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Butanone (MEK) | 93.1 | J0 | 1.28 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | 0.888 | J | 0.823 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Toluene | 0.727 | B J | 0.412 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Trichloroethene | 0.241 | J | 0.153 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Vinyl chloride | 90.6 | | 0.118 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:32 | WG966572 |
| *(S) Toluene-d8* | *100* | | | *80.0-120* | | *04/05/2017 19:32* | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/06/2017 17:37* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 19:32* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 17:37* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.4* | | | *80.0-120* | | *04/05/2017 19:32* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *95.9* | | | *80.0-120* | | *04/06/2017 17:37* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 19:52 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloroethane | 1.88 | | 0.114 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloroethene | 0.303 | J | 0.188 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| cis-1,2-Dichloroethene | 18.4 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichloropropane | 0.768 | | 0.190 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | 0.417 | J | 0.164 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Tetrachloroethene | 13.9 | | 0.199 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Toluene | 0.458 | B J | 0.412 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,1-Trichloroethane | 0.277 | J | 0.0940 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Trichloroethene | 5.81 | | 0.153 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Vinyl chloride | 0.871 | | 0.118 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:52 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 19:52* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 19:52* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.9* | | | *80.0-120* | | *04/05/2017 19:52* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 20:12 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Benzene | 0.148 | J | 0.0896 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloroform | 0.826 | | 0.0860 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| cis-1,2-Dichloroethene | 0.283 | J | 0.0933 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Hexane | 0.466 | J | 0.305 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Toluene | 0.563 | B J | 0.412 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 20:12 | WG966572 |
| *(S) Toluene-d8* | *100* | | | *80.0-120* | | *04/05/2017 20:12* | WG966572 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 20:12* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.8* | | | *80.0-120* | | *04/05/2017 20:12* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 5.25 | 125 | 5 | 04/05/2017 20:33 | WG966572 |
| Acrylonitrile | U | | 4.36 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Benzene | 257 | | 0.448 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromobenzene | U | | 0.665 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromodichloromethane | U | | 0.400 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromochloromethane | U | | 0.725 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromoform | U | | 0.930 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromomethane | U | | 0.785 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Butylbenzene | 4.61 | | 0.715 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| sec-Butylbenzene | 3.67 | | 0.670 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| tert-Butylbenzene | U | | 0.915 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Carbon disulfide | U | | 0.505 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Carbon tetrachloride | U | | 0.795 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chlorobenzene | U | | 0.700 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chlorodibromomethane | U | | 0.640 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloroethane | U | | 0.705 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 4.38 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloroform | 20.9 | | 0.430 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloromethane | U | | 0.765 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Chlorotoluene | U | | 0.555 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 4-Chlorotoluene | U | | 0.486 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 1.62 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dibromoethane | U | | 0.965 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Dibromomethane | U | | 0.585 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.505 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.605 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Dichlorodifluoromethane | U | | 0.635 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloroethane | U | | 0.570 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichloroethane | U | | 0.540 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloroethene | U | | 0.940 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.466 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.760 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichloropropane | U | | 0.950 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloropropene | U | | 0.640 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3-Dichloropropane | U | | 0.735 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.488 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,3-Dichloropropene | U | | 1.11 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 1.28 | 25.0 | 5 | 04/05/2017 20:33 | WG966572 |
| 2,2-Dichloropropane | U | | 0.464 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Di-isopropyl ether | U | | 0.462 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Ethylbenzene | 26.5 | | 0.790 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.785 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Hexanone | U | | 3.78 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Hexane | 58.6 | | 1.52 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| Iodomethane | U | | 1.88 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Isopropylbenzene | 66.9 | | 0.630 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| p-Isopropyltoluene | 0.915 | J | 0.690 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Butanone (MEK) | U | | 6.40 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Methylene Chloride | U | | 5.35 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 4.12 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Methyl tert-butyl ether | U | | 0.510 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Naphthalene | 3.64 | | 0.870 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Propylbenzene | 134 | | 0.810 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Styrene | U | | 0.585 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.600 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.820 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Tetrachloroethene | U | | 0.995 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Toluene | 16.3 | | 2.06 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.820 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 1.78 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.470 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.930 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Trichloroethene | U | | 0.765 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Trichlorofluoromethane | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trichloropropane | U | | 1.24 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.615 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trimethylbenzene | 8.81 | | 0.370 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3,5-Trimethylbenzene | 3.51 | | 0.620 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Vinyl acetate | U | | 3.22 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Vinyl chloride | U | | 0.590 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Xylenes, Total | 33.9 | | 1.58 | 7.50 | 5 | 04/05/2017 20:33 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 20:33* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 20:33* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.6* | | | *80.0-120* | | *04/05/2017 20:33* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 20:53 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Benzene | 6.74 | | 0.0896 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Butylbenzene | 7.17 | | 0.143 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| sec-Butylbenzene | 7.33 | | 0.134 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Ethylbenzene | 0.598 | | 0.158 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Hexane | 0.612 | J | 0.305 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Isopropylbenzene | 19.3 | | 0.126 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Naphthalene | 2.09 | | 0.174 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Propylbenzene | 62.7 | | 0.162 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Toluene | 0.624 | B J | 0.412 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,4-Trimethylbenzene | 4.84 | | 0.123 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trimethylbenzene | 1.50 | | 0.0739 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Xylenes, Total | 2.08 | | 0.316 | 1.50 | 1 | 04/05/2017 20:53 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 20:53* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 20:53* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.3* | | | *80.0-120* | | *04/05/2017 20:53* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.11 | J | 1.05 | 25.0 | 1 | 04/05/2017 21:13 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 21:13 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:13* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 21:13* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.1* | | | *80.0-120* | | *04/05/2017 21:13* | WG966572 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 577000 | | 2710 | 20000 | 1 | 03/29/2017 13:30 | WG965169 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22100 | | 51.9 | 1000 | 1 | 03/29/2017 15:47 | WG965193 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/29/2017 15:47 | WG965193 |
| Sulfate | 106000 | | 1550 | 100000 | 20 | 03/29/2017 16:02 | WG965193 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7320 | | 102 | 1000 | 1 | 04/03/2017 15:10 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 19700 | | 15.0 | 100 | 1 | 04/04/2017 12:54 | WG965287 |
| Manganese | 2270 | V | 0.250 | 5.00 | 1 | 04/04/2017 12:54 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 1740 | | 2.87 | 6.78 | 10 | 04/04/2017 15:06 | WG967102 |
| Ethane | 36.4 | | 0.296 | 1.29 | 1 | 04/03/2017 20:48 | WG966793 |
| Ethene | 2.20 | | 0.422 | 1.27 | 1 | 04/03/2017 20:48 | WG966793 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.40 | J | 1.05 | 25.0 | 1 | 04/05/2017 21:33 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Benzene | 1.59 | | 0.0896 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloroethene | 0.588 | | 0.188 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| cis-1,2-Dichloroethene | 278 | | 0.466 | 2.50 | 5 | 04/06/2017 17:50 | WG966572 |
| trans-1,2-Dichloroethene | 0.899 | | 0.152 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Tetrachloroethene | 73.1 | | 0.199 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Toluene | 0.479 | B J | 0.412 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Trichloroethene | 12.5 | | 0.153 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Vinyl chloride | 52.3 | | 0.118 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 21:33 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:33* | WG966572 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 17:50* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 21:33* | WG966572 |
| *(S) Dibromofluoromethane* | *109* | | | *76.0-123* | | *04/06/2017 17:50* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.6* | | | *80.0-120* | | *04/05/2017 21:33* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *97.9* | | | *80.0-120* | | *04/06/2017 17:50* | WG966572 |

## Method Blank (MB)

(MB) R3206759-1 03/29/17 11:39

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | U | | 2710 | 20000 |

## L898774-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898774-01 03/29/17 11:46 • (DUP) R3206759-3 03/29/17 11:55

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 92300 | 93900 | 1 | 2.00 | | 20 |

## L898793-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898793-06 03/29/17 13:44 • (DUP) R3206759-5 03/29/17 13:52

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 412000 | 411000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206759-4 03/29/17 12:43 • (LCSD) R3206759-7 03/29/17 13:58

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 96200 | 96400 | 96.0 | 96.0 | 85.0-115 | | | 0.000 | 20 |

## Method Blank (MB)

(MB) R3206908-1 03/29/17 06:48

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L898839-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898839-01 03/29/17 18:52 • (DUP) R3206908-5 03/29/17 19:08

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Nitrate | U | 0.000 | 1 | 0 | | 15 |
| Sulfate | 6170 | 5750 | 1 | 7 | | 15 |

## L898871-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898871-03 03/29/17 21:11 • (DUP) R3206908-8 03/29/17 21:26

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 20900 | 20800 | 1 | 0 | | 15 |
| Nitrate | ND | 0.000 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3206908-2 03/29/17 07:03 • (LCSD) R3206908-3 03/29/17 07:19

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 39300 | 39300 | 98 | 98 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8220 | 8260 | 103 | 103 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 39000 | 38900 | 98 | 97 | 80-120 | | | 0 | 15 |

## L898807-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L898807-01 03/29/17 14:46 • (MS) R3206908-4 03/29/17 15:01

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 46700 | 97900 | 102 | 1 | 80-120 | |
| Nitrate | 5000 | 1590 | 7260 | 114 | 1 | 80-120 | |
| Sulfate | 50000 | 5810 | 56400 | 101 | 1 | 80-120 | |

## L898871-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898871-02 03/29/17 20:25 • (MS) R3206908-6 03/29/17 20:40 • (MSD) R3206908-7 03/29/17 20:55

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 30600 | 81200 | 81700 | 101 | 102 | 1 | 80-120 | | | 1 | 15 |
| Nitrate | 5000 | 365 | 5460 | 5390 | 102 | 100 | 1 | 80-120 | | | 1 | 15 |

## Method Blank (MB)

(MB) R3207744-1 04/03/17 10:41

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L898812-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-01 04/03/17 14:40 • (DUP) R3207744-4 04/03/17 14:57

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 17900 | 17500 | 1 | 2 | | 20 |

## L899065-08 Original Sample (OS) • Duplicate (DUP)

(OS) L899065-08 04/03/17 21:07 • (DUP) R3207744-7 04/03/17 21:23

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 8950 | 8930 | 1 | 0 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207744-2 04/03/17 11:35 • (LCSD) R3207744-3 04/03/17 12:12

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 71400 | 72600 | 95 | 97 | 85-115 | | | 2 | 20 |

## L899065-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899065-04 04/03/17 18:31 • (MS) R3207744-5 04/03/17 18:49 • (MSD) R3207744-6 04/03/17 19:06

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | ND | 47700 | 47700 | 93 | 93 | 1 | 80-120 | | | 0 | 20 |

## Method Blank (MB)

(MB) R3208138-1 04/04/17 12:43

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208138-2 04/04/17 12:47 • (LCSD) R3208138-3 04/04/17 12:50

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5280 | 5170 | 106 | 103 | 80-120 | | | 2 | 20 |
| Manganese | 50.0 | 51.3 | 50.6 | 103 | 101 | 80-120 | | | 2 | 20 |

## L898812-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898812-08 04/04/17 12:54 • (MS) R3208138-5 04/04/17 13:01 • (MSD) R3208138-6 04/04/17 13:04

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 19700 | 24700 | 24700 | 100 | 99 | 1 | 75-125 | | | 0 | 20 |
| Manganese | 50.0 | 2270 | 2330 | 2330 | 127 | 119 | 1 | 75-125 | V | | 0 | 20 |

## Method Blank (MB)

(MB) R3207800-3 04/03/17 11:54

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *101* | | | *77.0-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207800-1 04/03/17 10:48 • (LCSD) R3207800-2 04/03/17 11:10

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | 6200 | 6040 | 113 | 110 | 72.0-134 | | | 2.65 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | *101* | *101* | *77.0-122* | | | | |

## L898995-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898995-04 04/04/17 00:29 • (MS) R3207800-4 04/04/17 00:51 • (MSD) R3207800-5 04/04/17 01:13

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Gasoline Range Organics-NWTPH | 5500 | ND | 5440 | 5800 | 98.9 | 105 | 1 | 23.0-159 | | | 6.45 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | | *100* | *101* | | *77.0-122* | | | | |

## Method Blank (MB)

(MB) R3208060-1 04/03/17 16:39

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 04/03/17 16:55 • (DUP) R3208060-2 04/03/17 19:58

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 10400 | 11900 | 40 | 12.7 | | 20 |
| Ethane | U | 0.000 | 40 | 0.000 | | 20 |
| Ethene | U | 0.000 | 40 | 0.000 | | 20 |

## L898516-07 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-07 04/03/17 20:15 • (DUP) R3208060-3 04/03/17 23:18

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 6740 | 7950 | 40 | 16.5 | | 20 |
| Ethane | U | 0.000 | 40 | 0.000 | | 20 |
| Ethene | U | 0.000 | 40 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208060-4 04/03/17 23:34 • (LCSD) R3208060-5 04/03/17 23:51

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 72.0 | 69.3 | 106 | 102 | 70.0-130 | | | 3.85 | 20 |
| Ethane | 129 | 130 | 125 | 101 | 96.8 | 70.0-130 | | | 3.79 | 20 |
| Ethene | 127 | 128 | 124 | 101 | 97.3 | 70.0-130 | | | 3.39 | 20 |

## Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 1740 | 1840 | 1 | 5.65 | | 20 |

## L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 69.6 | 68.8 | 103 | 101 | 70.0-130 | | | 1.12 | 20 |

## Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | J | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *92.8* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 126 | 124 | 101 | 99.2 | 10.0-160 | | | 1.53 | 23 |
| Acrylonitrile | 125 | 152 | 147 | 122 | 118 | 60.0-142 | | | 3.35 | 20 |
| Benzene | 25.0 | 25.9 | 25.2 | 104 | 101 | 69.0-123 | | | 2.70 | 20 |
| Bromobenzene | 25.0 | 21.8 | 21.9 | 87.4 | 87.6 | 79.0-120 | | | 0.240 | 20 |
| Bromodichloromethane | 25.0 | 24.8 | 24.7 | 99.2 | 98.7 | 76.0-120 | | | 0.550 | 20 |
| Bromochloromethane | 25.0 | 26.4 | 26.3 | 105 | 105 | 76.0-122 | | | 0.180 | 20 |
| Bromoform | 25.0 | 18.8 | 18.7 | 75.1 | 74.6 | 67.0-132 | | | 0.600 | 20 |
| Bromomethane | 25.0 | 29.5 | 29.2 | 118 | 117 | 18.0-160 | | | 0.960 | 20 |
| n-Butylbenzene | 25.0 | 25.8 | 24.7 | 103 | 98.6 | 72.0-126 | | | 4.54 | 20 |
| sec-Butylbenzene | 25.0 | 22.4 | 22.3 | 89.7 | 89.4 | 74.0-121 | | | 0.310 | 20 |
| tert-Butylbenzene | 25.0 | 20.5 | 20.3 | 81.9 | 81.3 | 75.0-122 | | | 0.710 | 20 |
| Carbon disulfide | 25.0 | 28.5 | 27.7 | 114 | 111 | 55.0-127 | | | 2.72 | 20 |
| Carbon tetrachloride | 25.0 | 22.5 | 21.6 | 89.8 | 86.4 | 63.0-122 | | | 3.84 | 20 |
| Chlorobenzene | 25.0 | 23.0 | 23.0 | 92.0 | 92.1 | 79.0-121 | | | 0.0700 | 20 |
| Chlorodibromomethane | 25.0 | 23.6 | 23.0 | 94.6 | 92.0 | 75.0-125 | | | 2.69 | 20 |
| Chloroethane | 25.0 | 28.3 | 27.9 | 113 | 112 | 47.0-152 | | | 1.40 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 137 | 131 | 110 | 105 | 10.0-160 | | | 4.57 | 22 |
| Chloroform | 25.0 | 27.3 | 26.7 | 109 | 107 | 72.0-121 | | | 2.13 | 20 |
| Chloromethane | 25.0 | 24.6 | 24.3 | 98.3 | 97.0 | 48.0-139 | | | 1.30 | 20 |
| 2-Chlorotoluene | 25.0 | 22.8 | 22.7 | 91.3 | 90.9 | 74.0-122 | | | 0.430 | 20 |
| 4-Chlorotoluene | 25.0 | 22.4 | 22.6 | 89.6 | 90.3 | 79.0-120 | | | 0.750 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 23.8 | 22.8 | 95.3 | 91.3 | 64.0-127 | | | 4.30 | 20 |
| 1,2-Dibromoethane | 25.0 | 23.2 | 22.7 | 93.0 | 90.8 | 77.0-123 | | | 2.30 | 20 |
| Dibromomethane | 25.0 | 22.6 | 22.2 | 90.5 | 88.7 | 78.0-120 | | | 1.98 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 23.8 | 23.5 | 95.4 | 93.9 | 80.0-120 | | | 1.54 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 20.5 | 20.9 | 81.9 | 83.7 | 72.0-123 | | | 2.10 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 23.5 | 22.8 | 94.0 | 91.2 | 77.0-120 | | | 3.06 | 20 |
| Dichlorodifluoromethane | 25.0 | 24.3 | 22.9 | 97.1 | 91.7 | 49.0-155 | | | 5.71 | 20 |
| 1,1-Dichloroethane | 25.0 | 28.7 | 28.1 | 115 | 112 | 70.0-126 | | | 2.02 | 20 |
| 1,2-Dichloroethane | 25.0 | 25.1 | 25.4 | 101 | 101 | 67.0-126 | | | 0.910 | 20 |
| 1,1-Dichloroethene | 25.0 | 28.5 | 27.5 | 114 | 110 | 64.0-129 | | | 3.71 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 28.3 | 27.7 | 113 | 111 | 73.0-120 | | | 1.94 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 27.9 | 27.2 | 112 | 109 | 71.0-121 | | | 2.40 | 20 |
| 1,2-Dichloropropane | 25.0 | 27.4 | 26.8 | 110 | 107 | 75.0-125 | | | 2.30 | 20 |
| 1,1-Dichloropropene | 25.0 | 29.3 | 28.1 | 117 | 113 | 71.0-129 | | | 4.15 | 20 |
| 1,3-Dichloropropane | 25.0 | 24.8 | 24.6 | 99.2 | 98.5 | 80.0-121 | | | 0.710 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 28.2 | 27.8 | 113 | 111 | 79.0-123 | | | 1.40 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 25.5 | 25.0 | 102 | 100 | 74.0-127 | | | 2.01 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.9 | 19.9 | 83.6 | 79.5 | 55.0-134 | | | 5.03 | 20 |
| 2,2-Dichloropropane | 25.0 | 27.6 | 27.1 | 111 | 108 | 60.0-125 | | | 2.10 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 26.9 | 26.8 | 108 | 107 | 59.0-133 | | | 0.460 | 20 |
| Ethylbenzene | 25.0 | 21.0 | 20.5 | 84.0 | 82.1 | 77.0-120 | | | 2.33 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 23.6 | 22.3 | 94.6 | 89.3 | 64.0-131 | | | 5.68 | 20 |
| 2-Hexanone | 125 | 127 | 124 | 102 | 98.9 | 58.0-147 | | | 3.01 | 20 |
| n-Hexane | 25.0 | 24.9 | 23.7 | 99.5 | 94.7 | 56.0-124 | | | 4.95 | 20 |
| Iodomethane | 125 | 128 | 126 | 103 | 101 | 57.0-140 | | | 1.49 | 20 |
| Isopropylbenzene | 25.0 | 20.4 | 20.2 | 81.4 | 80.8 | 75.0-120 | | | 0.760 | 20 |
| p-Isopropyltoluene | 25.0 | 23.3 | 23.0 | 93.0 | 91.9 | 74.0-126 | | | 1.15 | 20 |
| 2-Butanone (MEK) | 125 | 149 | 143 | 120 | 114 | 37.0-158 | | | 4.70 | 20 |
| Methylene Chloride | 25.0 | 27.2 | 26.9 | 109 | 108 | 66.0-121 | | | 0.980 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 144 | 140 | 115 | 112 | 59.0-143 | | | 2.70 | 20 |
| Methyl tert-butyl ether | 25.0 | 28.6 | 28.6 | 114 | 114 | 64.0-123 | | | 0.0300 | 20 |
| Naphthalene | 25.0 | 21.6 | 21.3 | 86.3 | 85.3 | 62.0-128 | | | 1.22 | 20 |
| n-Propylbenzene | 25.0 | 20.6 | 20.4 | 82.5 | 81.5 | 79.0-120 | | | 1.23 | 20 |
| Styrene | 25.0 | 21.1 | 20.9 | 84.5 | 83.7 | 78.0-124 | | | 1.00 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.5 | 22.7 | 90.0 | 90.9 | 75.0-122 | | | 1.07 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 22.9 | 22.6 | 91.5 | 90.6 | 71.0-122 | | | 1.02 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 26.0 | 25.2 | 104 | 101 | 61.0-136 | | | 2.88 | 20 |
| Tetrachloroethene | 25.0 | 21.8 | 21.6 | 87.3 | 86.4 | 70.0-127 | | | 1.06 | 20 |
| Toluene | 25.0 | 22.5 | 21.6 | 89.9 | 86.3 | 77.0-120 | | | 4.10 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 24.7 | 24.6 | 98.8 | 98.2 | 61.0-133 | | | 0.620 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 23.8 | 23.3 | 95.2 | 93.1 | 69.0-129 | | | 2.30 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 27.1 | 26.6 | 108 | 106 | 68.0-122 | | | 1.70 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 23.5 | 23.3 | 94.0 | 93.0 | 78.0-120 | | | 1.03 | 20 |
| Trichloroethene | 25.0 | 24.8 | 24.3 | 99.3 | 97.2 | 78.0-120 | | | 2.18 | 20 |
| Trichlorofluoromethane | 25.0 | 27.6 | 26.8 | 111 | 107 | 56.0-137 | | | 2.85 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 23.3 | 23.3 | 93.4 | 93.3 | 72.0-124 | | | 0.0400 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 22.5 | 22.6 | 89.8 | 90.3 | 75.0-120 | | | 0.540 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.3 | 22.4 | 93.1 | 89.6 | 75.0-120 | | | 3.78 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 22.6 | 22.6 | 90.5 | 90.5 | 75.0-120 | | | 0.0100 | 20 |
| Vinyl acetate | 125 | 131 | 125 | 105 | 99.8 | 46.0-160 | | | 5.24 | 20 |
| Vinyl chloride | 25.0 | 27.0 | 26.4 | 108 | 106 | 64.0-133 | | | 2.01 | 20 |
| Xylenes, Total | 75.0 | 62.1 | 61.4 | 82.8 | 81.9 | 77.0-120 | | | 1.13 | 20 |
| *(S) Toluene-d8* | | | | *103* | *102* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *108* | *107* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *88.8* | *91.7* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J0 | J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | |
|---|---|
| Alabama | 40660 |
| Alaska | UST-080 |
| Arizona | AZ0612 |
| Arkansas | 88-0469 |
| California | 01157CA |
| Colorado | TN00003 |
| Conneticut | PH-0197 |
| Florida | E87487 |
| Georgia | NELAP |
| Georgia [1] | 923 |
| Idaho | TN00003 |
| Illinois | 200008 |
| Indiana | C-TN-01 |
| Iowa | 364 |
| Kansas | E-10277 |
| Kentucky [1] | 90010 |
| Kentucky [2] | 16 |
| Louisiana | AI30792 |
| Maine | TN0002 |
| Maryland | 324 |
| Massachusetts | M-TN003 |
| Michigan | 9958 |
| Minnesota | 047-999-395 |
| Mississippi | TN00003 |
| Missouri | 340 |
| Montana | CERT0086 |
| Nebraska | NE-OS-15-05 |
| Nevada | TN-03-2002-34 |
| New Hampshire | 2975 |
| New Jersey–NELAP | TN002 |
| New Mexico | TN00003 |
| New York | 11742 |
| North Carolina | Env375 |
| North Carolina [1] | DW21704 |
| North Carolina [2] | 41 |
| North Dakota | R-140 |
| Ohio–VAP | CL0069 |
| Oklahoma | 9915 |
| Oregon | TN200002 |
| Pennsylvania | 68-02979 |
| Rhode Island | 221 |
| South Carolina | 84004 |
| South Dakota | n/a |
| Tennessee [1 4] | 2006 |
| Texas | T 104704245-07-TX |
| Texas [5] | LAB0152 |
| Utah | 6157585858 |
| Vermont | VT2006 |
| Virginia | 109 |
| Washington | C1915 |
| West Virginia | 233 |
| Wisconsin | 9980939910 |
| Wyoming | A2LA |

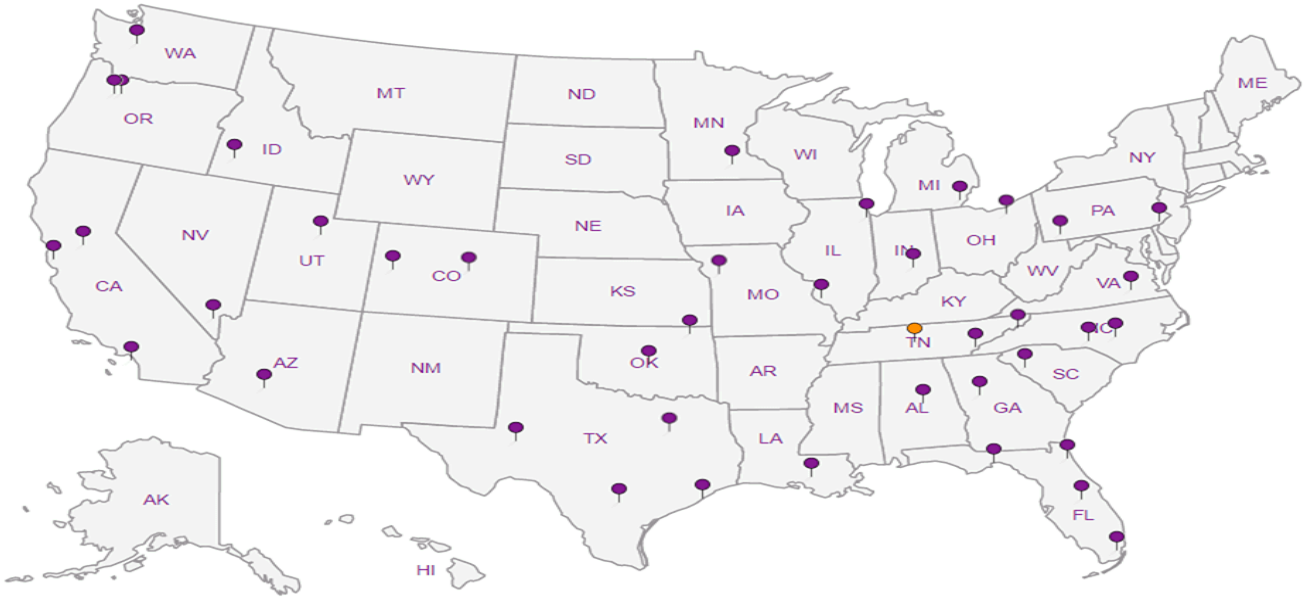
## Third Party & Federal Accreditations

| | |
|---|---|
| A2LA – ISO 17025 | 1461.01 |
| A2LA – ISO 17025 [5] | 1461.02 |
| Canada | 1461.01 |
| EPA–Crypto | TN00003 |
| AIHA-LAP,LLC | 100789 |
| DOD | 1461.01 |
| USDA | S-67674 |

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3935

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): S. McKennan C. Deber

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris Deber

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified) ___ Same Day ___ Next Day ___ Two Day ___ Three Day ___ Five Day ___ 5 Day (Rad Only) ___ 10 Day (Rad Only) X

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW121-032817 | Grab | GW | 20 | 3/28/17 | 915 | 9 | X | | X | X | X | X | | -01 |
| FS-032817 | GRAB | GW | 25 | 3/28/17 | 1020 | 6 | | X | | | X | | | 02 |
| MW130-032817 | Grab | GW | 45 | 3/28/17 | 1040 | 4 | | | | | X | | | 03 |
| MW126-032817 | GRAB | GW | 90 | 3/28/17 | 1200 | 4 | | | | | X | | | 04 |
| SCL-MW105-032817 | Grab | GW | 27.5 | 3/28/17 | 1705 | 4 | | | | | X | | | 05 |
| SCL-MW102-032817 | GRAB | GW | 12.5 | 3/28/17 | 1302 | 4 | | | | | X | | | 06 |
| MW122-032817 | Grab | GW | 112 | 3/28/17 | 1340 | 4 | | | | | X | | | 07 |
| MW108-032817 | GRAB | GW | 45 | 3/28/17 | 1430 | 9 | X | | X | X | X | X | | 08 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier ___ _____

Tracking # 7174 9011 7133

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 21° °C Bottles Received: 44

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris Deber | 3/28/17 | 1530 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | MWA |

Date: 3-29-17 Time: 845

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L898812

J216

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17 GA
Shipped Via: FedEX Ground

# MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 27, 2017- Groundwater Samples

**LAB:** ESC Lab ID L898812

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Eight (8) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 28, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898812. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898812 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*NWTPH-Gx Method:*
All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for trans-1,4-dichloro-2-butene and 2-butanone (MEK) were identified by the laboratory for samples associated with analytical batch WG966572 (analyzed on April 5, 2017). The trans-1,4-dichloro-2-butene and 2-butanone (MEK) results are qualified by the laboratory "J0" to indicate that percent difference for trans-1,4-dichloro-2-butene and 2-butanone (MEK) CCV is outside of laboratory acceptance criteria. **All associated sample results for trans-1,4-dichloro-2-butene qualified as estimated (UJ). Sample F5-32817 result for MEK is qualified as estimated (J).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level toluene detection was reported in the method blank (Batch WG966572). Detection is less than the RDL but greater than the method detection limit. Low level toluene detection is reported in associated samples F5-032817, MW120-032817, MW126-032817, SCL-MW102-032817, and MW108-032817. **Toluene results in these samples are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*
A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs) and NWTPH-Gx:*
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) within the analytical batch. No action was taken in this case. Refer to LCS/LCSD results for precision data.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample was performed on a client sample from a different SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed sample MW121-032817. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water.

*NWTPH-Gx Method:*
LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*NWTPH-Gx Method:*
Matrix spike analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water.

*Method RSK-175:*
Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on sample MW121-032817. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Matrix spike recovery for manganese was slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 848000 | | 2710 | 20000 | 1 | 03/29/2017 13:23 | WG965169 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 12200 | | 51.9 | 1000 | 1 | 03/29/2017 15:16 | WG965193 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/29/2017 15:16 | WG965193 |
| Sulfate | 643000 | | 1550 | 100000 | 20 | 03/29/2017 15:32 | WG965193 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 17900 | | 102 | 1000 | 1 | 04/03/2017 14:40 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 33300 | | 15.0 | 100 | 1 | 04/04/2017 14:30 | WG965287 |
| Manganese | 13200 | | 0.500 | 10.0 | 2 | 04/04/2017 14:51 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 479 | | 0.287 | 0.678 | 1 | 04/03/2017 20:31 | WG966793 |
| Ethane | 2.04 | | 0.296 | 1.29 | 1 | 04/03/2017 20:31 | WG966793 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/03/2017 20:31 | WG966793 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.32 | J | 1.05 | 25.0 | 1 | 04/05/2017 19:11 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| cis-1,2-Dichloroethene | 0.768 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ JO | 0.257 | 5.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:11 | WG966572 |
| Vinyl chloride | 5.82 | | 0.118 | 0.500 | 1 | 04/05/2017 19:11 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:11 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 19:11* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 19:11* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.2* | | | *80.0-120* | | *04/05/2017 19:11* | WG966572 |

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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 234 | | 31.6 | 100 | 1 | 04/03/2017 13:59 | WG966451 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *99.6* | | | *77.0-122* | | *04/03/2017 13:59* | WG966451 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 38.3 | | 1.05 | 25.0 | 1 | 04/05/2017 19:32 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Benzene | 0.515 | | 0.0896 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Carbon disulfide | 0.202 | J J | 0.101 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloroethane | 0.769 | | 0.141 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloroethene | 0.743 | | 0.188 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| cis-1,2-Dichloroethene | 516 | | 0.933 | 5.00 | 10 | 04/06/2017 17:37 | WG966572 |
| trans-1,2-Dichloroethene | 4.31 | | 0.152 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ JO | 0.257 | 5.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 2-Butanone (MEK) | 93.1 | ~~VJ~~ J JO | 1.28 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | 0.888 | J J | 0.823 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Toluene | 0.727 | U B J | 0.412 | 1.00 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Trichloroethene | 0.241 | J J | 0.153 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:32 | WG966572 |
| Vinyl chloride | 90.6 | | 0.118 | 0.500 | 1 | 04/05/2017 19:32 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:32 | WG966572 |
| *(S) Toluene-d8* | *100* | | | *80.0-120* | | *04/05/2017 19:32* | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/06/2017 17:37* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 19:32* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 17:37* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.4* | | | *80.0-120* | | *04/05/2017 19:32* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *95.9* | | | *80.0-120* | | *04/06/2017 17:37* | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 19:52 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloroethane | 1.88 | | 0.114 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloroethene | 0.303 | J J | 0.188 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| cis-1,2-Dichloroethene | 18.4 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2-Dichloropropane | 0.768 | | 0.190 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ JO | 0.257 | 5.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | 0.417 | J J | 0.164 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Tetrachloroethene | 13.9 | | 0.199 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Toluene | 0.458 | U B J | 0.412 | 1.00 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,1-Trichloroethane | 0.277 | J J | 0.0940 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Trichloroethene | 5.81 | | 0.153 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:52 | WG966572 |
| Vinyl chloride | 0.871 | | 0.118 | 0.500 | 1 | 04/05/2017 19:52 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:52 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 19:52* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 19:52* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.9* | | | *80.0-120* | | *04/05/2017 19:52* | WG966572 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 20:12 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Benzene | 0.148 | J J | 0.0896 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloroform | 0.826 | | 0.0860 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| cis-1,2-Dichloroethene | 0.283 | J J | 0.0933 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ JO | 0.257 | 5.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Hexane | 0.466 | J J | 0.305 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Toluene | 0.563 U | B J | 0.412 | 1.00 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 20:12 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 20:12 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 20:12 | WG966572 |
| *(S) Toluene-d8* | *100* | | | *80.0-120* | | *04/05/2017 20:12* | WG966572 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 20:12* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.8* | | | *80.0-120* | | *04/05/2017 20:12* | WG966572 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 5.25 | 125 | 5 | 04/05/2017 20:33 | WG966572 |
| Acrylonitrile | U | | 4.36 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Benzene | 257 | | 0.448 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromobenzene | U | | 0.665 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromodichloromethane | U | | 0.400 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromochloromethane | U | | 0.725 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromoform | U | | 0.930 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Bromomethane | U | | 0.785 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Butylbenzene | 4.61 | | 0.715 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| sec-Butylbenzene | 3.67 | | 0.670 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| tert-Butylbenzene | U | | 0.915 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Carbon disulfide | U | | 0.505 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Carbon tetrachloride | U | | 0.795 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chlorobenzene | U | | 0.700 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chlorodibromomethane | U | | 0.640 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloroethane | U | | 0.705 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 4.38 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloroform | 20.9 | | 0.430 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Chloromethane | U | | 0.765 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Chlorotoluene | U | | 0.555 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 4-Chlorotoluene | U | | 0.486 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 1.62 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dibromoethane | U | | 0.965 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Dibromomethane | U | | 0.585 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.505 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.605 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Dichlorodifluoromethane | U | | 0.635 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloroethane | U | | 0.570 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichloroethane | U | | 0.540 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloroethene | U | | 0.940 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.466 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.760 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2-Dichloropropane | U | | 0.950 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1-Dichloropropene | U | | 0.640 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3-Dichloropropane | U | | 0.735 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.488 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,3-Dichloropropene | U | | 1.11 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ JO | 1.28 | 25.0 | 5 | 04/05/2017 20:33 | WG966572 |
| 2,2-Dichloropropane | U | | 0.464 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Di-isopropyl ether | U | | 0.462 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Ethylbenzene | 26.5 | | 0.790 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.785 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Hexanone | U | | 3.78 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Hexane | 58.6 | | 1.52 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| Iodomethane | U | | 1.88 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Isopropylbenzene | 66.9 | | 0.630 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| p-Isopropyltoluene | 0.915 | J J | 0.690 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 2-Butanone (MEK) | U | | 6.40 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Methylene Chloride | U | | 5.35 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 4.12 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Methyl tert-butyl ether | U | | 0.510 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Naphthalene | 3.64 | | 0.870 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| n-Propylbenzene | 134 | | 0.810 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Styrene | U | | 0.585 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.600 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.820 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Tetrachloroethene | U | | 0.995 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Toluene | 16.3 | | 2.06 | 5.00 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.820 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 1.78 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.470 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.930 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Trichloroethene | U | | 0.765 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Trichlorofluoromethane | U | | 0.650 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trichloropropane | U | | 1.24 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.615 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,2,3-Trimethylbenzene | 8.81 | | 0.370 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| 1,3,5-Trimethylbenzene | 3.51 | | 0.620 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Vinyl acetate | U | | 3.22 | 12.5 | 5 | 04/05/2017 20:33 | WG966572 |
| Vinyl chloride | U | | 0.590 | 2.50 | 5 | 04/05/2017 20:33 | WG966572 |
| Xylenes, Total | 33.9 | | 1.58 | 7.50 | 5 | 04/05/2017 20:33 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 20:33* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 20:33* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.6* | | | *80.0-120* | | *04/05/2017 20:33* | WG966572 |

Cp
1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc
9

4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 20:53 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Benzene | 6.74 | | 0.0896 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Butylbenzene | 7.17 | | 0.143 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| sec-Butylbenzene | 7.33 | | 0.134 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | V5 | J0 | 0.257 | 5.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Ethylbenzene | 0.598 | | 0.158 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Hexane | 0.612 | J | J | 0.305 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Isopropylbenzene | 19.3 | | 0.126 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Naphthalene | 2.09 | | 0.174 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| n-Propylbenzene | 62.7 | | 0.162 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Toluene | 0.624 | B J | 0.412 | 1.00 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,4-Trimethylbenzene | 4.84 | | 0.123 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,2,3-Trimethylbenzene | 1.50 | | 0.0739 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 20:53 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 20:53 | WG966572 |
| Xylenes, Total | 2.08 | | 0.316 | 1.50 | 1 | 04/05/2017 20:53 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 20:53* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 20:53* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.3* | | | *80.0-120* | | *04/05/2017 20:53* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.11 J | J | 1.05 | 25.0 | 1 | 04/05/2017 21:13 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ J0 | 0.257 | 5.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |



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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 21:13 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 21:13 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 21:13 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:13* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 21:13* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.1* | | | *80.0-120* | | *04/05/2017 21:13* | WG966572 |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

4/26/17

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 577000 | | 2710 | 20000 | 1 | 03/29/2017 13:30 | WG965169 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 22100 | | 51.9 | 1000 | 1 | 03/29/2017 15:47 | WG965193 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/29/2017 15:47 | WG965193 |
| Sulfate | 106000 | | 1550 | 100000 | 20 | 03/29/2017 16:02 | WG965193 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 7320 | | 102 | 1000 | 1 | 04/03/2017 15:10 | WG966368 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 19700 | | 15.0 | 100 | 1 | 04/04/2017 12:54 | WG965287 |
| Manganese | 2270 | V | 0.250 | 5.00 | 1 | 04/04/2017 12:54 | WG965287 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 1740 | | 2.87 | 6.78 | 10 | 04/04/2017 15:06 | WG967102 |
| Ethane | 36.4 | | 0.296 | 1.29 | 1 | 04/03/2017 20:48 | WG966793 |
| Ethene | 2.20 | | 0.422 | 1.27 | 1 | 04/03/2017 20:48 | WG966793 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.40 J | J | 1.05 | 25.0 | 1 | 04/05/2017 21:33 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Benzene | 1.59 | | 0.0896 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |

4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloroethene | 0.588 | | 0.188 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| cis-1,2-Dichloroethene | 278 | | 0.466 | 2.50 | 5 | 04/06/2017 17:50 | WG966572 |
| trans-1,2-Dichloroethene | 0.899 | | 0.152 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | U5 J0 | 0.257 | 5.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Tetrachloroethene | 73.1 | | 0.199 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Toluene | 0.479 | u BJ | 0.412 | 1.00 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Trichloroethene | 12.5 | | 0.153 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 21:33 | WG966572 |
| Vinyl chloride | 52.3 | | 0.118 | 0.500 | 1 | 04/05/2017 21:33 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 21:33 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:33* | WG966572 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 17:50* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 21:33* | WG966572 |
| *(S) Dibromofluoromethane* | *109* | | | *76.0-123* | | *04/06/2017 17:50* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.6* | | | *80.0-120* | | *04/05/2017 21:33* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *97.9* | | | *80.0-120* | | *04/06/2017 17:50* | WG966572 |

# ANALYTICAL REPORT

April 10, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L899176 |
| Samples Received: | 03/30/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW130-032917 L899176-01 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 09:55
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965753 | 1 | 03/30/17 15:01 | 03/30/17 15:01 | AMC |
| Wet Chemistry by Method 9056A | WG965688 | 1 | 03/30/17 15:33 | 03/30/17 15:33 | SAM |
| Wet Chemistry by Method 9060A | WG966665 | 1 | 04/04/17 16:07 | 04/04/17 16:07 | SJM |
| Metals (ICPMS) by Method 6020 | WG966238 | 1 | 04/05/17 10:13 | 04/07/17 16:36 | LAT |
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966455 | 5 | 04/05/17 08:49 | 04/05/17 08:49 | JAH |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 02:20 | 04/04/17 02:20 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 20 | 04/05/17 21:53 | 04/05/17 21:53 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 200 | 04/06/17 18:03 | 04/06/17 18:03 | JHH |

## MW128-032917 L899176-02 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 10:00
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965753 | 1 | 03/30/17 15:17 | 03/30/17 15:17 | AMC |
| Wet Chemistry by Method 9056A | WG965688 | 1 | 03/30/17 15:51 | 03/30/17 15:51 | SAM |
| Wet Chemistry by Method 9060A | WG966665 | 1 | 04/04/17 16:20 | 04/04/17 16:20 | SJM |
| Metals (ICPMS) by Method 6020 | WG966238 | 1 | 04/05/17 10:13 | 04/07/17 15:21 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 02:37 | 04/04/17 02:37 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG967102 | 50 | 04/04/17 16:30 | 04/04/17 16:30 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 22:14 | 04/05/17 22:14 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/06/17 18:16 | 04/06/17 18:16 | JHH |

## MW124-032917 L899176-03 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 12:05
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 22:34 | 04/05/17 22:34 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/06/17 18:28 | 04/06/17 18:28 | JHH |

## MW109-032917 L899176-04 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 12:00
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965753 | 1 | 03/30/17 15:23 | 03/30/17 15:23 | AMC |
| Wet Chemistry by Method 9056A | WG965688 | 1 | 03/30/17 16:28 | 03/30/17 16:28 | SAM |
| Wet Chemistry by Method 9060A | WG966665 | 1 | 04/04/17 16:39 | 04/04/17 16:39 | SJM |
| Metals (ICPMS) by Method 6020 | WG966238 | 1 | 04/05/17 10:13 | 04/07/17 15:24 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 04:00 | 04/04/17 04:00 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG967102 | 10 | 04/04/17 16:46 | 04/04/17 16:46 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 22:55 | 04/05/17 22:55 | LRL |

## MW119-032917 L899176-05 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 13:55
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG965753 | 1 | 03/30/17 15:30 | 03/30/17 15:30 | AMC |
| Wet Chemistry by Method 9056A | WG965688 | 1 | 03/30/17 17:05 | 03/30/17 17:05 | SAM |
| Wet Chemistry by Method 9060A | WG966665 | 1 | 04/04/17 16:55 | 04/04/17 16:55 | SJM |
| Metals (ICPMS) by Method 6020 | WG966238 | 1 | 04/05/17 10:13 | 04/07/17 15:35 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 04:17 | 04/04/17 04:17 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG967102 | 10 | 04/04/17 17:03 | 04/04/17 17:03 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 23:15 | 04/05/17 23:15 | LRL |

## MW102-032917 L899176-06 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 14:10
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 23:36 | 04/05/17 23:36 | LRL |

## MW301-032917 L899176-07 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 14:50
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 23:56 | 04/05/17 23:56 | LRL |

## TRIP BLANK L899176-08 GW

Collected by: C. DeBoer
Collected date/time: 03/29/17 00:00
Received date/time: 03/30/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method NWTPHGX | WG966455 | 1 | 04/05/17 01:08 | 04/05/17 01:08 | JAH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG966572 | 1 | 04/05/17 17:10 | 04/05/17 17:10 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 276000 | | 2710 | 20000 | 1 | 03/30/2017 15:01 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 100000 | | 51.9 | 1000 | 1 | 03/30/2017 15:33 | WG965688 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/30/2017 15:33 | WG965688 |
| Sulfate | 7070 | | 77.4 | 5000 | 1 | 03/30/2017 15:33 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10700 | | 102 | 1000 | 1 | 04/04/2017 16:07 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 1190 | | 15.0 | 100 | 1 | 04/07/2017 16:36 | WG966238 |
| Manganese | 555 | | 0.250 | 5.00 | 1 | 04/07/2017 16:36 | WG966238 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 8890 | | 158 | 500 | 5 | 04/05/2017 08:49 | WG966455 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *109* | | | *77.0-122* | | *04/05/2017 08:49* | WG966455 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 619 | | 0.287 | 0.678 | 1 | 04/04/2017 02:20 | WG966794 |
| Ethane | 1.62 | | 0.296 | 1.29 | 1 | 04/04/2017 02:20 | WG966794 |
| Ethene | 30.0 | | 0.422 | 1.27 | 1 | 04/04/2017 02:20 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 23.7 | J | 21.0 | 500 | 20 | 04/05/2017 21:53 | WG966572 |
| Acrylonitrile | U | | 17.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Benzene | U | | 1.79 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromobenzene | U | | 2.66 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromodichloromethane | U | | 1.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromochloromethane | U | | 2.90 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromoform | U | | 3.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromomethane | U | | 3.14 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Butylbenzene | U | | 2.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| sec-Butylbenzene | U | | 2.68 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| tert-Butylbenzene | U | | 3.66 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Carbon disulfide | U | | 2.02 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Carbon tetrachloride | U | | 3.18 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chlorobenzene | U | | 2.80 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chlorodibromomethane | U | | 2.56 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloroethane | U | | 2.82 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 2-Chloroethyl vinyl ether | U | | 17.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloroform | U | | 1.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloromethane | U | | 3.06 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Chlorotoluene | U | | 2.22 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 4-Chlorotoluene | U | | 1.94 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 6.50 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dibromoethane | U | | 3.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Dibromomethane | U | | 2.34 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichlorobenzene | U | | 2.02 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3-Dichlorobenzene | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,4-Dichlorobenzene | U | | 2.42 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Dichlorodifluoromethane | U | | 2.54 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloroethane | U | | 2.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichloroethane | U | | 2.16 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloroethene | 102 | | 3.76 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| cis-1,2-Dichloroethene | 7880 | | 18.7 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| trans-1,2-Dichloroethene | 39.3 | | 3.04 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichloropropane | U | | 3.80 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloropropene | U | | 2.56 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3-Dichloropropane | U | | 2.94 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| cis-1,3-Dichloropropene | U | | 1.95 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| trans-1,3-Dichloropropene | U | | 4.44 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 5.14 | 100 | 20 | 04/05/2017 21:53 | WG966572 |
| 2,2-Dichloropropane | U | | 1.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Di-isopropyl ether | U | | 1.85 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Ethylbenzene | U | | 3.16 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 3.14 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Hexanone | U | | 15.1 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Hexane | U | | 6.10 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Iodomethane | U | | 7.54 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Isopropylbenzene | U | | 2.52 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| p-Isopropyltoluene | U | | 2.76 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Butanone (MEK) | U | | 25.6 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Methylene Chloride | U | | 21.4 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 16.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Methyl tert-butyl ether | U | | 2.04 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Naphthalene | U | | 3.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Propylbenzene | U | | 3.24 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Styrene | U | | 2.34 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 2.40 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 3.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Tetrachloroethene | 721 | | 39.8 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| Toluene | U | | 8.24 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 3.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 7.10 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,1-Trichloroethane | U | | 1.88 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2-Trichloroethane | U | | 3.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Trichloroethene | 830 | | 30.6 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| Trichlorofluoromethane | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trichloropropane | U | | 4.94 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 2.46 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 1.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 2.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Vinyl acetate | U | | 12.9 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Vinyl chloride | 186 | | 2.36 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Xylenes, Total | U | | 6.32 | 30.0 | 20 | 04/05/2017 21:53 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:53* | WG966572 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:03* | WG966572 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 21:53* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/06/2017 18:03* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.6* | | | *80.0-120* | | *04/05/2017 21:53* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *97.3* | | | *80.0-120* | | *04/06/2017 18:03* | WG966572 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 387000 | | 2710 | 20000 | 1 | 03/30/2017 15:17 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 15900 | | 51.9 | 1000 | 1 | 03/30/2017 15:51 | WG965688 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/30/2017 15:51 | WG965688 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/30/2017 15:51 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 4840 | | 102 | 1000 | 1 | 04/04/2017 16:20 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 10500 | | 15.0 | 100 | 1 | 04/07/2017 15:21 | WG966238 |
| Manganese | 227 | | 0.250 | 5.00 | 1 | 04/07/2017 15:21 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 12600 | | 14.4 | 33.9 | 50 | 04/04/2017 16:30 | WG967102 |
| Ethane | 13.2 | | 0.296 | 1.29 | 1 | 04/04/2017 02:37 | WG966794 |
| Ethene | 64.8 | | 0.422 | 1.27 | 1 | 04/04/2017 02:37 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 22:14 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| cis-1,2-Dichloroethene | 7.16 | | 0.0933 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Vinyl chloride | 72.4 | | 0.118 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:14 | WG966572 |
| *(S) Toluene-d8* | *99.9* | | | *80.0-120* | | *04/05/2017 22:14* | WG966572 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:16* | WG966572 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 22:14* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:16* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.0* | | | *80.0-120* | | *04/05/2017 22:14* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *96.4* | | | *80.0-120* | | *04/06/2017 18:16* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.35 | J | 1.05 | 25.0 | 1 | 04/05/2017 22:34 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloroform | 1.37 | | 0.0860 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| cis-1,2-Dichloroethene | 0.661 | | 0.0933 | 0.500 | 1 | 04/06/2017 18:28 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Tetrachloroethene | 1.60 | | 0.199 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Toluene | 0.785 | B J | 0.412 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Trichloroethene | 0.596 | | 0.153 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:34 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 22:34* | WG966572 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 18:28* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:28* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 22:34* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.2* | | | *80.0-120* | | *04/05/2017 22:34* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *98.0* | | | *80.0-120* | | *04/06/2017 18:28* | WG966572 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 498000 | | 2710 | 20000 | 1 | 03/30/2017 15:23 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 6900 | | 51.9 | 1000 | 1 | 03/30/2017 16:28 | WG965688 |
| Nitrate | 25.5 | J | 22.7 | 100 | 1 | 03/30/2017 16:28 | WG965688 |
| Sulfate | 31400 | | 77.4 | 5000 | 1 | 03/30/2017 16:28 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10800 | | 102 | 1000 | 1 | 04/04/2017 16:39 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 12000 | | 15.0 | 100 | 1 | 04/07/2017 15:24 | WG966238 |
| Manganese | 3010 | | 0.250 | 5.00 | 1 | 04/07/2017 15:24 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 2000 | | 2.87 | 6.78 | 10 | 04/04/2017 16:46 | WG967102 |
| Ethane | 7.21 | | 0.296 | 1.29 | 1 | 04/04/2017 04:00 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 04:00 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 22:55 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| cis-1,2-Dichloroethene | 12.6 | | 0.0933 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Trichloroethene | 0.198 | J | 0.153 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Vinyl chloride | 3.49 | | 0.118 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:55 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 22:55* | WG966572 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 22:55* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.8* | | | *80.0-120* | | *04/05/2017 22:55* | WG966572 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 255000 | | 2710 | 20000 | 1 | 03/30/2017 15:30 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 20500 | | 51.9 | 1000 | 1 | 03/30/2017 17:05 | WG965688 |
| Nitrate | 164 | | 22.7 | 100 | 1 | 03/30/2017 17:05 | WG965688 |
| Sulfate | 14900 | | 77.4 | 5000 | 1 | 03/30/2017 17:05 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 6840 | | 102 | 1000 | 1 | 04/04/2017 16:55 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 17100 | | 15.0 | 100 | 1 | 04/07/2017 15:35 | WG966238 |
| Manganese | 2980 | | 0.250 | 5.00 | 1 | 04/07/2017 15:35 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 819 | | 2.87 | 6.78 | 10 | 04/04/2017 17:03 | WG967102 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/04/2017 04:17 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 04:17 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.28 | J | 1.05 | 25.0 | 1 | 04/05/2017 23:15 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Benzene | 0.139 | J | 0.0896 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| cis-1,2-Dichloroethene | 42.9 | | 0.0933 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,2-Dichloroethene | 0.334 | J | 0.152 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Tetrachloroethene | 5.47 | | 0.199 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Trichloroethene | 10.7 | | 0.153 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Vinyl chloride | 0.272 | J | 0.118 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:15 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 23:15* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 23:15* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *88.5* | | | *80.0-120* | | *04/05/2017 23:15* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.36 | J | 1.05 | 25.0 | 1 | 04/05/2017 23:36 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Carbon disulfide | 0.161 | J | 0.101 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| cis-1,2-Dichloroethene | 0.223 | J | 0.0933 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:36 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 23:36* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 23:36* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.4* | | | *80.0-120* | | *04/05/2017 23:36* | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.21 | J | 1.05 | 25.0 | 1 | 04/05/2017 23:56 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloroform | 1.30 | | 0.0860 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| cis-1,2-Dichloroethene | 0.600 | | 0.0933 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Tetrachloroethene | 1.22 | | 0.199 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Toluene | 0.675 | B J | 0.412 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Trichloroethene | 0.433 | J | 0.153 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:56 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 23:56* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 23:56* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.3* | | | *80.0-120* | | *04/05/2017 23:56* | WG966572 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/05/2017 01:08 | WG966455 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *102* | | | *77.0-122* | | *04/05/2017 01:08* | WG966455 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 17:10 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | J0 | 0.257 | 5.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Naphthalene | 0.279 | J | 0.174 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 17:10 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 17:10* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 17:10* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.5* | | | *80.0-120* | | *04/05/2017 17:10* | WG966572 |

## Method Blank (MB)

(MB) R3207223-2 03/30/17 14:51

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3070 | J | 2710 | 20000 |

## L899176-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899176-01 03/30/17 15:01 • (DUP) R3207223-4 03/30/17 15:10

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 276000 | 281000 | 1 | 2.00 | | 20 |

## L899203-12 Original Sample (OS) • Duplicate (DUP)

(OS) L899203-12 03/30/17 17:58 • (DUP) R3207223-7 03/30/17 18:06

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity | 116000 | 118000 | 1 | 2.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207223-5 03/30/17 16:18 • (LCSD) R3207223-6 03/30/17 17:36

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 88600 | 90100 | 89.0 | 90.0 | 85.0-115 | | | 2.00 | 20 |

## Method Blank (MB)

(MB) R3207248-1 03/30/17 10:43

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L899168-03 Original Sample (OS) • Duplicate (DUP)

(OS) L899168-03 03/30/17 13:06 • (DUP) R3207248-4 03/30/17 13:24

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 79500 | 80200 | 1 | 1 | | 15 |
| Nitrate | 2080 | 2150 | 1 | 3 | | 15 |
| Sulfate | 82000 | 80500 | 1 | 2 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207248-2 03/30/17 11:01 • (LCSD) R3207248-3 03/30/17 11:19

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 39500 | 39400 | 99 | 99 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8170 | 8190 | 102 | 102 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 40100 | 39900 | 100 | 100 | 80-120 | | | 0 | 15 |

## L899168-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L899168-04 03/30/17 13:42 • (MS) R3207248-5 03/30/17 14:01

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 12400 | 60500 | 96 | 1 | 80-120 | |
| Nitrate | 5000 | 668 | 5580 | 98 | 1 | 80-120 | |
| Sulfate | 50000 | 6980 | 58900 | 104 | 1 | 80-120 | |

## Method Blank (MB)

(MB) R3208217-1 04/04/17 08:26

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L899068-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899068-01 04/04/17 10:11 • (DUP) R3208217-3 04/04/17 10:25

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 10700 | 10800 | 1 | 1 | | 20 |

## L899255-05 Original Sample (OS) • Duplicate (DUP)

(OS) L899255-05 04/04/17 17:59 • (DUP) R3208217-7 04/04/17 18:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 5690 | 5660 | 1 | 1 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208217-2 04/04/17 09:21 • (LCSD) R3208217-4 04/04/17 11:16

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 71300 | 71600 | 95 | 95 | 85-115 | | | 0 | 20 |

## L899157-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899157-02 04/04/17 10:58 • (MS) R3208217-5 04/04/17 12:25 • (MSD) R3208217-6 04/04/17 12:43

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 417 | 48500 | 47400 | 96 | 94 | 1 | 80-120 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3209215-1 04/07/17 11:04

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | 0.263 | J | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3209215-2 04/07/17 11:07 • (LCSD) R3209215-3 04/07/17 11:11

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5420 | 5330 | 108 | 107 | 80-120 | | | 2 | 20 |
| Manganese | 50.0 | 52.4 | 52.2 | 105 | 104 | 80-120 | | | 0 | 20 |

## L899122-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899122-01 04/07/17 11:15 • (MS) R3209215-5 04/07/17 11:21 • (MSD) R3209215-6 04/07/17 11:25

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 28200 | 34400 | 33900 | 124 | 113 | 1 | 75-125 | | | 2 | 20 |
| Manganese | 50.0 | 2070 | 2170 | 2160 | 189 | 180 | 1 | 75-125 | V | V | 0 | 20 |

## Method Blank (MB)

(MB) R3208800-3 04/05/17 00:01

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *102* | | | *77.0-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208800-1 04/04/17 22:58 • (LCSD) R3208800-2 04/04/17 23:19

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 5500 | 6480 | 6340 | 118 | 115 | 72.0-134 | | | 2.27 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | *104* | *104* | *77.0-122* | | | | |

## L898920-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898920-02 04/05/17 02:53 • (MS) R3208800-4 04/05/17 01:50 • (MSD) R3208800-5 04/05/17 02:11

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 5500 | ND | 2230 | 2360 | 40.6 | 42.9 | 1 | 23.0-159 | | | 5.59 | 20 |
| *(S) a,a,a-Trifluorotoluene(FID)* | | | | | *104* | *104* | | *77.0-122* | | | | |

## Method Blank (MB)

(MB) R3208061-1 04/04/17 00:07

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L899438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899438-01 04/04/17 03:10 • (DUP) R3208061-2 04/04/17 03:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 8.93 | 1 | 3.50 | J | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L899439-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899439-01 04/04/17 03:44 • (DUP) R3208061-3 04/04/17 06:47

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208061-4 04/04/17 07:04 • (LCSD) R3208061-5 04/04/17 07:20

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 70.0 | 68.4 | 103 | 101 | 70.0-130 | | | 2.30 | 20 |
| Ethane | 129 | 125 | 123 | 97.0 | 95.0 | 70.0-130 | | | 2.06 | 20 |
| Ethene | 127 | 123 | 120 | 96.8 | 94.6 | 70.0-130 | | | 2.33 | 20 |

## Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 1740 | 1840 | 1 | 5.65 | | 20 |

## L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 69.6 | 68.8 | 103 | 101 | 70.0-130 | | | 1.12 | 20 |

## Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | J | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *92.8* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 126 | 124 | 101 | 99.2 | 10.0-160 | | | 1.53 | 23 |
| Acrylonitrile | 125 | 152 | 147 | 122 | 118 | 60.0-142 | | | 3.35 | 20 |
| Benzene | 25.0 | 25.9 | 25.2 | 104 | 101 | 69.0-123 | | | 2.70 | 20 |
| Bromobenzene | 25.0 | 21.8 | 21.9 | 87.4 | 87.6 | 79.0-120 | | | 0.240 | 20 |
| Bromodichloromethane | 25.0 | 24.8 | 24.7 | 99.2 | 98.7 | 76.0-120 | | | 0.550 | 20 |
| Bromochloromethane | 25.0 | 26.4 | 26.3 | 105 | 105 | 76.0-122 | | | 0.180 | 20 |
| Bromoform | 25.0 | 18.8 | 18.7 | 75.1 | 74.6 | 67.0-132 | | | 0.600 | 20 |
| Bromomethane | 25.0 | 29.5 | 29.2 | 118 | 117 | 18.0-160 | | | 0.960 | 20 |
| n-Butylbenzene | 25.0 | 25.8 | 24.7 | 103 | 98.6 | 72.0-126 | | | 4.54 | 20 |
| sec-Butylbenzene | 25.0 | 22.4 | 22.3 | 89.7 | 89.4 | 74.0-121 | | | 0.310 | 20 |
| tert-Butylbenzene | 25.0 | 20.5 | 20.3 | 81.9 | 81.3 | 75.0-122 | | | 0.710 | 20 |
| Carbon disulfide | 25.0 | 28.5 | 27.7 | 114 | 111 | 55.0-127 | | | 2.72 | 20 |
| Carbon tetrachloride | 25.0 | 22.5 | 21.6 | 89.8 | 86.4 | 63.0-122 | | | 3.84 | 20 |
| Chlorobenzene | 25.0 | 23.0 | 23.0 | 92.0 | 92.1 | 79.0-121 | | | 0.0700 | 20 |
| Chlorodibromomethane | 25.0 | 23.6 | 23.0 | 94.6 | 92.0 | 75.0-125 | | | 2.69 | 20 |
| Chloroethane | 25.0 | 28.3 | 27.9 | 113 | 112 | 47.0-152 | | | 1.40 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 137 | 131 | 110 | 105 | 10.0-160 | | | 4.57 | 22 |
| Chloroform | 25.0 | 27.3 | 26.7 | 109 | 107 | 72.0-121 | | | 2.13 | 20 |
| Chloromethane | 25.0 | 24.6 | 24.3 | 98.3 | 97.0 | 48.0-139 | | | 1.30 | 20 |
| 2-Chlorotoluene | 25.0 | 22.8 | 22.7 | 91.3 | 90.9 | 74.0-122 | | | 0.430 | 20 |
| 4-Chlorotoluene | 25.0 | 22.4 | 22.6 | 89.6 | 90.3 | 79.0-120 | | | 0.750 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 23.8 | 22.8 | 95.3 | 91.3 | 64.0-127 | | | 4.30 | 20 |
| 1,2-Dibromoethane | 25.0 | 23.2 | 22.7 | 93.0 | 90.8 | 77.0-123 | | | 2.30 | 20 |
| Dibromomethane | 25.0 | 22.6 | 22.2 | 90.5 | 88.7 | 78.0-120 | | | 1.98 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 23.8 | 23.5 | 95.4 | 93.9 | 80.0-120 | | | 1.54 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 20.5 | 20.9 | 81.9 | 83.7 | 72.0-123 | | | 2.10 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 23.5 | 22.8 | 94.0 | 91.2 | 77.0-120 | | | 3.06 | 20 |
| Dichlorodifluoromethane | 25.0 | 24.3 | 22.9 | 97.1 | 91.7 | 49.0-155 | | | 5.71 | 20 |
| 1,1-Dichloroethane | 25.0 | 28.7 | 28.1 | 115 | 112 | 70.0-126 | | | 2.02 | 20 |
| 1,2-Dichloroethane | 25.0 | 25.1 | 25.4 | 101 | 101 | 67.0-126 | | | 0.910 | 20 |
| 1,1-Dichloroethene | 25.0 | 28.5 | 27.5 | 114 | 110 | 64.0-129 | | | 3.71 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 28.3 | 27.7 | 113 | 111 | 73.0-120 | | | 1.94 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 27.9 | 27.2 | 112 | 109 | 71.0-121 | | | 2.40 | 20 |
| 1,2-Dichloropropane | 25.0 | 27.4 | 26.8 | 110 | 107 | 75.0-125 | | | 2.30 | 20 |
| 1,1-Dichloropropene | 25.0 | 29.3 | 28.1 | 117 | 113 | 71.0-129 | | | 4.15 | 20 |
| 1,3-Dichloropropane | 25.0 | 24.8 | 24.6 | 99.2 | 98.5 | 80.0-121 | | | 0.710 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 28.2 | 27.8 | 113 | 111 | 79.0-123 | | | 1.40 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 25.5 | 25.0 | 102 | 100 | 74.0-127 | | | 2.01 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.9 | 19.9 | 83.6 | 79.5 | 55.0-134 | | | 5.03 | 20 |
| 2,2-Dichloropropane | 25.0 | 27.6 | 27.1 | 111 | 108 | 60.0-125 | | | 2.10 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 26.9 | 26.8 | 108 | 107 | 59.0-133 | | | 0.460 | 20 |
| Ethylbenzene | 25.0 | 21.0 | 20.5 | 84.0 | 82.1 | 77.0-120 | | | 2.33 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 23.6 | 22.3 | 94.6 | 89.3 | 64.0-131 | | | 5.68 | 20 |
| 2-Hexanone | 125 | 127 | 124 | 102 | 98.9 | 58.0-147 | | | 3.01 | 20 |
| n-Hexane | 25.0 | 24.9 | 23.7 | 99.5 | 94.7 | 56.0-124 | | | 4.95 | 20 |
| Iodomethane | 125 | 128 | 126 | 103 | 101 | 57.0-140 | | | 1.49 | 20 |
| Isopropylbenzene | 25.0 | 20.4 | 20.2 | 81.4 | 80.8 | 75.0-120 | | | 0.760 | 20 |
| p-Isopropyltoluene | 25.0 | 23.3 | 23.0 | 93.0 | 91.9 | 74.0-126 | | | 1.15 | 20 |
| 2-Butanone (MEK) | 125 | 149 | 143 | 120 | 114 | 37.0-158 | | | 4.70 | 20 |
| Methylene Chloride | 25.0 | 27.2 | 26.9 | 109 | 108 | 66.0-121 | | | 0.980 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 144 | 140 | 115 | 112 | 59.0-143 | | | 2.70 | 20 |
| Methyl tert-butyl ether | 25.0 | 28.6 | 28.6 | 114 | 114 | 64.0-123 | | | 0.0300 | 20 |
| Naphthalene | 25.0 | 21.6 | 21.3 | 86.3 | 85.3 | 62.0-128 | | | 1.22 | 20 |
| n-Propylbenzene | 25.0 | 20.6 | 20.4 | 82.5 | 81.5 | 79.0-120 | | | 1.23 | 20 |
| Styrene | 25.0 | 21.1 | 20.9 | 84.5 | 83.7 | 78.0-124 | | | 1.00 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.5 | 22.7 | 90.0 | 90.9 | 75.0-122 | | | 1.07 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 22.9 | 22.6 | 91.5 | 90.6 | 71.0-122 | | | 1.02 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 26.0 | 25.2 | 104 | 101 | 61.0-136 | | | 2.88 | 20 |
| Tetrachloroethene | 25.0 | 21.8 | 21.6 | 87.3 | 86.4 | 70.0-127 | | | 1.06 | 20 |
| Toluene | 25.0 | 22.5 | 21.6 | 89.9 | 86.3 | 77.0-120 | | | 4.10 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 24.7 | 24.6 | 98.8 | 98.2 | 61.0-133 | | | 0.620 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 23.8 | 23.3 | 95.2 | 93.1 | 69.0-129 | | | 2.30 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 27.1 | 26.6 | 108 | 106 | 68.0-122 | | | 1.70 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 23.5 | 23.3 | 94.0 | 93.0 | 78.0-120 | | | 1.03 | 20 |
| Trichloroethene | 25.0 | 24.8 | 24.3 | 99.3 | 97.2 | 78.0-120 | | | 2.18 | 20 |
| Trichlorofluoromethane | 25.0 | 27.6 | 26.8 | 111 | 107 | 56.0-137 | | | 2.85 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 23.3 | 23.3 | 93.4 | 93.3 | 72.0-124 | | | 0.0400 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 22.5 | 22.6 | 89.8 | 90.3 | 75.0-120 | | | 0.540 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.3 | 22.4 | 93.1 | 89.6 | 75.0-120 | | | 3.78 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 22.6 | 22.6 | 90.5 | 90.5 | 75.0-120 | | | 0.0100 | 20 |
| Vinyl acetate | 125 | 131 | 125 | 105 | 99.8 | 46.0-160 | | | 5.24 | 20 |
| Vinyl chloride | 25.0 | 27.0 | 26.4 | 108 | 106 | 64.0-133 | | | 2.01 | 20 |
| Xylenes, Total | 75.0 | 62.1 | 61.4 | 82.8 | 81.9 | 77.0-120 | | | 1.13 | 20 |
| *(S) Toluene-d8* | | | | *103* | *102* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *108* | *107* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *88.8* | *91.7* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J0 | J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | |
|---|---|
| Alabama | 40660 |
| Alaska | UST-080 |
| Arizona | AZ0612 |
| Arkansas | 88-0469 |
| California | 01157CA |
| Colorado | TN00003 |
| Conneticut | PH-0197 |
| Florida | E87487 |
| Georgia | NELAP |
| Georgia [1] | 923 |
| Idaho | TN00003 |
| Illinois | 200008 |
| Indiana | C-TN-01 |
| Iowa | 364 |
| Kansas | E-10277 |
| Kentucky [1] | 90010 |
| Kentucky [2] | 16 |
| Louisiana | AI30792 |
| Maine | TN0002 |
| Maryland | 324 |
| Massachusetts | M-TN003 |
| Michigan | 9958 |
| Minnesota | 047-999-395 |
| Mississippi | TN00003 |
| Missouri | 340 |
| Montana | CERT0086 |
| Nebraska | NE-OS-15-05 |
| Nevada | TN-03-2002-34 |
| New Hampshire | 2975 |
| New Jersey–NELAP | TN002 |
| New Mexico | TN00003 |
| New York | 11742 |
| North Carolina | Env375 |
| North Carolina [1] | DW21704 |
| North Carolina [2] | 41 |
| North Dakota | R-140 |
| Ohio–VAP | CL0069 |
| Oklahoma | 9915 |
| Oregon | TN200002 |
| Pennsylvania | 68-02979 |
| Rhode Island | 221 |
| South Carolina | 84004 |
| South Dakota | n/a |
| Tennessee [1 4] | 2006 |
| Texas | T 104704245-07-TX |
| Texas [5] | LAB0152 |
| Utah | 6157585858 |
| Vermont | VT2006 |
| Virginia | 109 |
| Washington | C1915 |
| West Virginia | 233 |
| Wisconsin | 9980939910 |
| Wyoming | A2LA |

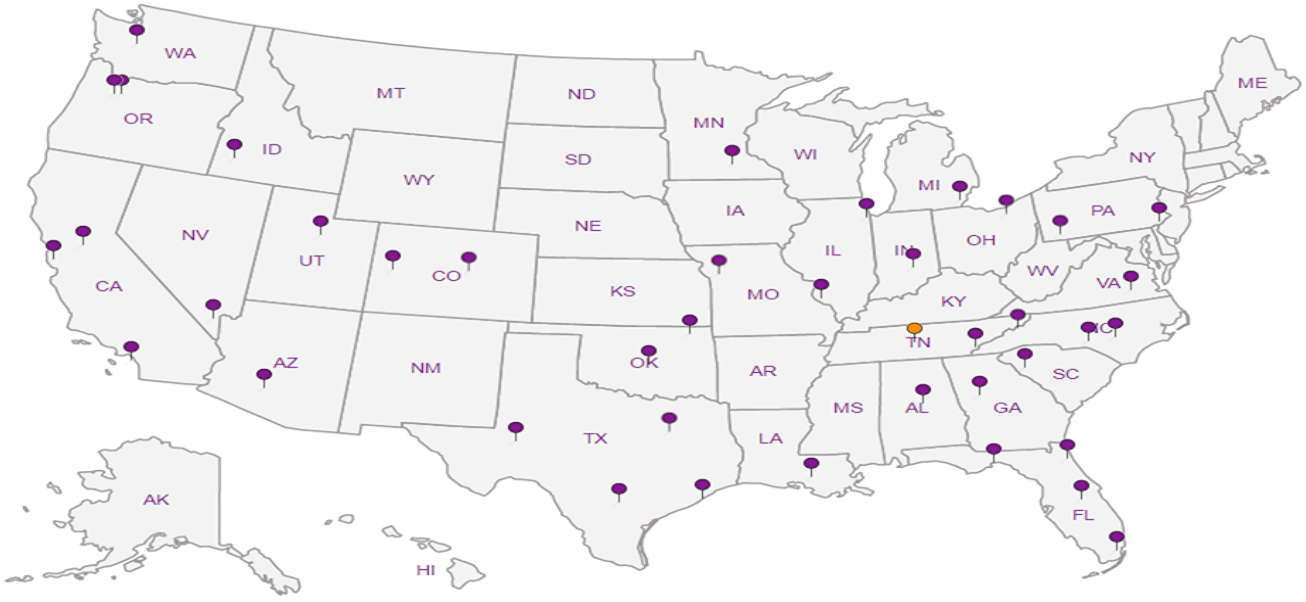
## Third Party & Federal Accreditations

| | |
|---|---|
| A2LA – ISO 17025 | 1461.01 |
| A2LA – ISO 17025 [5] | 1461.02 |
| Canada | 1461.01 |
| EPA–Crypto | TN00003 |
| AIHA-LAP,LLC | 100789 |
| DOD | 1461.01 |
| USDA | S-67674 |

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Chris DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW130-032917 | Grab | GW | 75 | 3/29/17 | 955 | 11 | X | X | X | X | X | X | | -01 |
| MW128-032917 | GRAB | GW | 65 | 3/29/17 | 1000 | 9 | X | | X | X | X | X | | 02 |
| MW124-032917 | Grab | GW | 120 | 3/29/17 | 1205 | 4 | | | | | X | | | 03 |
| MW109-032917 | GRAB | GW | 30 | 3/29/17 | 1200 | 9 | X | | X | X | X | X | | 04 |
| MW119-032917 | GRAB | GW | 40 | 3/29/17 | 1355 | 9 | X | | X | X | X | X | | 05 |
| MW107-032917 | Grab | GW | 120 | 3/29/17 | 1410 | 4 | | X | | | X | | | 06 |
| MW301-032917 | Grab | GW | 120 | 3/29/17 | 1450 | 4 | | X | | | X | | | 07 |
| TRIP BLANK | | GW | | | | 1 | | X | | | X | | | 08 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L899176
1081

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris DeBoer | 3/29/17 | 1500 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 21° °C Bottles Received: 10 50

Date: 3-30-17 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

# MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 27, 2017- Groundwater Samples

**LAB:** ESC Lab ID L899176

---

Seven (7) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 29, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L899176. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L899176 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*NWTPH-Gx Method:*
All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within the method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for trans-1,4-dichloro-2-butene was identified by the laboratory for all samples associated with analytical batch **WG**966572 (analyzed on April 5, 2017). The trans-1,4-dichloro-2-butene results are qualified by the laboratory "J0" to indicate that percent difference for trans-1,4-dichloro-2-butene CCV is outside of laboratory acceptance criteria. **Associated sample results for trans-1,4-dichloro-2-butene are non-detected and estimated (UJ).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level toluene detection was reported in the method blank (Batch WG966572). Detection is less than the RDL but greater than the method detection limit (MDL). Low level toluene detections are reported in samples MW124-032917 and MW301-032917. **Toluene results in associated samples MW124-032917 and MW301-032917 are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*
A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) is not detected in the method blank at or above the RDL.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs) and NWTPH-Gx:*
A trip blank was collected and submitted for analysis. One VOC compound, naphthalene, was detected in the trip blank at a low level between the MDL and RDL. No action was taken since naphthalene is not detected in the associated samples.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* Laboratory duplicate sample analyses were performed on sample MW130-032917 and on a non-client sample within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* A laboratory duplicate sample was analyzed on a non-client sample within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

*NWTPH-Gx Method:*
LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for the analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*NWTPH-Gx Method:*
Matrix spike analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water.

*Method RSK-175:*
Matrix spike analysis was not performed on the dissolved gases samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a non-client sample within the analytical batch.. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- MS/MSD recoveries for manganese are slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 276000 | | 2710 | 20000 | 1 | 03/30/2017 15:01 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 100000 | | 51.9 | 1000 | 1 | 03/30/2017 15:33 | WG965688 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/30/2017 15:33 | WG965688 |
| Sulfate | 7070 | | 77.4 | 5000 | 1 | 03/30/2017 15:33 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10700 | | 102 | 1000 | 1 | 04/04/2017 16:07 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 1190 | | 15.0 | 100 | 1 | 04/07/2017 16:36 | WG966238 |
| Manganese | 555 | | 0.250 | 5.00 | 1 | 04/07/2017 16:36 | WG966238 |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Gasoline Range Organics-NWTPH | 8890 | | 158 | 500 | 5 | 04/05/2017 08:49 | WG966455 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *109* | | | *77.0-122* | | *04/05/2017 08:49* | WG966455 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 619 | | 0.287 | 0.678 | 1 | 04/04/2017 02:20 | WG966794 |
| Ethane | 1.62 | | 0.296 | 1.29 | 1 | 04/04/2017 02:20 | WG966794 |
| Ethene | 30.0 | | 0.422 | 1.27 | 1 | 04/04/2017 02:20 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 23.7 | J J | 21.0 | 500 | 20 | 04/05/2017 21:53 | WG966572 |
| Acrylonitrile | U | | 17.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Benzene | U | | 1.79 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromobenzene | U | | 2.66 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromodichloromethane | U | | 1.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromochloromethane | U | | 2.90 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromoform | U | | 3.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Bromomethane | U | | 3.14 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Butylbenzene | U | | 2.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| sec-Butylbenzene | U | | 2.68 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| tert-Butylbenzene | U | | 3.66 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Carbon disulfide | U | | 2.02 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Carbon tetrachloride | U | | 3.18 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chlorobenzene | U | | 2.80 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chlorodibromomethane | U | | 2.56 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloroethane | U | | 2.82 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| 2-Chloroethyl vinyl ether | U | | 17.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloroform | U | | 1.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Chloromethane | U | | 3.06 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Chlorotoluene | U | | 2.22 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 4-Chlorotoluene | U | | 1.94 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 6.50 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dibromoethane | U | | 3.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Dibromomethane | U | | 2.34 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichlorobenzene | U | | 2.02 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3-Dichlorobenzene | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,4-Dichlorobenzene | U | | 2.42 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Dichlorodifluoromethane | U | | 2.54 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloroethane | U | | 2.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichloroethane | U | | 2.16 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloroethene | 102 | | 3.76 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| cis-1,2-Dichloroethene | 7880 | | 18.7 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| trans-1,2-Dichloroethene | 39.3 | | 3.04 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2-Dichloropropane | U | | 3.80 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1-Dichloropropene | U | | 2.56 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3-Dichloropropane | U | | 2.94 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| cis-1,3-Dichloropropene | U | | 1.95 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| trans-1,3-Dichloropropene | U | | 4.44 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ | J0 5.14 | 100 | 20 | 04/05/2017 21:53 | WG966572 |
| 2,2-Dichloropropane | U | | 1.86 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Di-isopropyl ether | U | | 1.85 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Ethylbenzene | U | | 3.16 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 3.14 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Hexanone | U | | 15.1 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Hexane | U | | 6.10 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Iodomethane | U | | 7.54 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Isopropylbenzene | U | | 2.52 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| p-Isopropyltoluene | U | | 2.76 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 2-Butanone (MEK) | U | | 25.6 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Methylene Chloride | U | | 21.4 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 16.5 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Methyl tert-butyl ether | U | | 2.04 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Naphthalene | U | | 3.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| n-Propylbenzene | U | | 3.24 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Styrene | U | | 2.34 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 2.40 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 3.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Tetrachloroethene | 721 | | 39.8 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| Toluene | U | | 8.24 | 20.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 3.28 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 7.10 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,1-Trichloroethane | U | | 1.88 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,1,2-Trichloroethane | U | | 3.72 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Trichloroethene | 830 | | 30.6 | 100 | 200 | 04/06/2017 18:03 | WG966572 |
| Trichlorofluoromethane | U | | 2.60 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trichloropropane | U | | 4.94 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 2.46 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 1.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 2.48 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Vinyl acetate | U | | 12.9 | 50.0 | 20 | 04/05/2017 21:53 | WG966572 |
| Vinyl chloride | 186 | | 2.36 | 10.0 | 20 | 04/05/2017 21:53 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Xylenes, Total | U | | 6.32 | 30.0 | 20 | 04/05/2017 21:53 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 21:53* | WG966572 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:03* | WG966572 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 21:53* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/06/2017 18:03* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.6* | | | *80.0-120* | | *04/05/2017 21:53* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *97.3* | | | *80.0-120* | | *04/06/2017 18:03* | WG966572 |



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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 387000 | | 2710 | 20000 | 1 | 03/30/2017 15:17 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 15900 | | 51.9 | 1000 | 1 | 03/30/2017 15:51 | WG965688 |
| Nitrate | U | | 22.7 | 100 | 1 | 03/30/2017 15:51 | WG965688 |
| Sulfate | U | | 77.4 | 5000 | 1 | 03/30/2017 15:51 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 4840 | | 102 | 1000 | 1 | 04/04/2017 16:20 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 10500 | | 15.0 | 100 | 1 | 04/07/2017 15:21 | WG966238 |
| Manganese | 227 | | 0.250 | 5.00 | 1 | 04/07/2017 15:21 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 12600 | | 14.4 | 33.9 | 50 | 04/04/2017 16:30 | WG967102 |
| Ethane | 13.2 | | 0.296 | 1.29 | 1 | 04/04/2017 02:37 | WG966794 |
| Ethene | 64.8 | | 0.422 | 1.27 | 1 | 04/04/2017 02:37 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 22:14 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| cis-1,2-Dichloroethene | 7.16 | | 0.0933 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ JO | 0.257 | 5.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/06/2017 18:16 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:14 | WG966572 |
| Vinyl chloride | 72.4 | | 0.118 | 0.500 | 1 | 04/05/2017 22:14 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:14 | WG966572 |
| *(S) Toluene-d8* | *99.9* | | | *80.0-120* | | *04/05/2017 22:14* | WG966572 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:16* | WG966572 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 22:14* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:16* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *89.0* | | | *80.0-120* | | *04/05/2017 22:14* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *96.4* | | | *80.0-120* | | *04/06/2017 18:16* | WG966572 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

9/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.35 | J J | 1.05 | 25.0 | 1 | 04/05/2017 22:34 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloroform | 1.37 | | 0.0860 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| cis-1,2-Dichloroethene | 0.661 | | 0.0933 | 0.500 | 1 | 04/06/2017 18:28 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ JO | 0.257 | 5.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

9/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Tetrachloroethene | 1.60 | | 0.199 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Toluene | 0.785 | U BJ | 0.412 | 1.00 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Trichloroethene | 0.596 | | 0.153 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:34 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 22:34 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:34 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 22:34* | WG966572 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 18:28* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:28* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 22:34* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.2* | | | *80.0-120* | | *04/05/2017 22:34* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *98.0* | | | *80.0-120* | | *04/06/2017 18:28* | WG966572 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 498000 | | 2710 | 20000 | 1 | 03/30/2017 15:23 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 6900 | | 51.9 | 1000 | 1 | 03/30/2017 16:28 | WG965688 |
| Nitrate | 25.5 | J J | 22.7 | 100 | 1 | 03/30/2017 16:28 | WG965688 |
| Sulfate | 31400 | | 77.4 | 5000 | 1 | 03/30/2017 16:28 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 10800 | | 102 | 1000 | 1 | 04/04/2017 16:39 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 12000 | | 15.0 | 100 | 1 | 04/07/2017 15:24 | WG966238 |
| Manganese | 3010 | | 0.250 | 5.00 | 1 | 04/07/2017 15:24 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 2000 | | 2.87 | 6.78 | 10 | 04/04/2017 16:46 | WG967102 |
| Ethane | 7.21 | | 0.296 | 1.29 | 1 | 04/04/2017 04:00 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 04:00 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 22:55 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| cis-1,2-Dichloroethene | 12.6 | | 0.0933 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ JO | 0.257 | 5.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Trichloroethene | 0.198 | J J | 0.153 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 22:55 | WG966572 |
| Vinyl chloride | 3.49 | | 0.118 | 0.500 | 1 | 04/05/2017 22:55 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 22:55 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 22:55* | WG966572 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 22:55* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.8* | | | *80.0-120* | | *04/05/2017 22:55* | WG966572 |

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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 255000 | | 2710 | 20000 | 1 | 03/30/2017 15:30 | WG965753 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 20500 | | 51.9 | 1000 | 1 | 03/30/2017 17:05 | WG965688 |
| Nitrate | 164 | | 22.7 | 100 | 1 | 03/30/2017 17:05 | WG965688 |
| Sulfate | 14900 | | 77.4 | 5000 | 1 | 03/30/2017 17:05 | WG965688 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 6840 | | 102 | 1000 | 1 | 04/04/2017 16:55 | WG966665 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 17100 | | 15.0 | 100 | 1 | 04/07/2017 15:35 | WG966238 |
| Manganese | 2980 | | 0.250 | 5.00 | 1 | 04/07/2017 15:35 | WG966238 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 819 | | 2.87 | 6.78 | 10 | 04/04/2017 17:03 | WG967102 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/04/2017 04:17 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 04:17 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.28 | J J | 1.05 | 25.0 | 1 | 04/05/2017 23:15 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Benzene | 0.139 | J J | 0.0896 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| cis-1,2-Dichloroethene | 42.9 | | 0.0933 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,2-Dichloroethene | 0.334 | J J | 0.152 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | UJ JO | 0.257 | 5.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Tetrachloroethene | 5.47 | | 0.199 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Trichloroethene | 10.7 | | 0.153 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:15 | WG966572 |
| Vinyl chloride | 0.272 | J J | 0.118 | 0.500 | 1 | 04/05/2017 23:15 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:15 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 23:15* | WG966572 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/05/2017 23:15* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *88.5* | | | *80.0-120* | | *04/05/2017 23:15* | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.36 | J | 1.05 | 25.0 | 1 | 04/05/2017 23:36 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Carbon disulfide | 0.161 | J | 0.101 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| cis-1,2-Dichloroethene | 0.223 | J | 0.0933 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ | 0.257 | 5.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:36 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 23:36 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:36 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 23:36* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 23:36* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *92.4* | | | *80.0-120* | | *04/05/2017 23:36* | WG966572 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

4/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.21 | J J | 1.05 | 25.0 | 1 | 04/05/2017 23:56 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloroform | 1.30 | | 0.0860 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| cis-1,2-Dichloroethene | 0.600 | | 0.0933 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | VJ J0 | 0.257 | 5.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Tetrachloroethene | 1.22 | | 0.199 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Toluene | 0.675 | U | B J | 0.412 | 1.00 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Trichloroethene | 0.433 | J | J | 0.153 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 23:56 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 23:56 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 23:56 | WG966572 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/05/2017 23:56* | WG966572 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 23:56* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *90.3* | | | *80.0-120* | | *04/05/2017 23:56* | WG966572 |



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## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | U | | 31.6 | 100 | 1 | 04/05/2017 01:08 | WG966455 |
| *(S) a,a,a-Trifluorotoluene(FID)* | *102* | | | *77.0-122* | | *04/05/2017 01:08* | WG966455 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 | 1 | 04/05/2017 17:10 | WG966572 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| trans-1,4-Dichloro-2-butene | U | V5 | 0.257 | 5.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 2,2-Dichloropropane | U | J0 | 0.0929 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |

YC 4/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Naphthalene | 0.279 | J J | 0.174 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 17:10 | WG966572 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/05/2017 17:10 | WG966572 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 17:10 | WG966572 |
| *(S) Toluene-d8* | *101* | | | *80.0-120* | | *04/05/2017 17:10* | WG966572 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 17:10* | WG966572 |
| *(S) 4-Bromofluorobenzene* | *91.5* | | | *80.0-120* | | *04/05/2017 17:10* | WG966572 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

4/25/17

# ANALYTICAL REPORT

April 07, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L899472 |
| Samples Received: | 03/31/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW214-033017 L899472-01 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 08:46 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 18:05 | 04/05/17 18:05 | LRL |

## MW104-033017 L899472-02 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 10:10 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG966192 | 1 | 04/01/17 13:07 | 04/01/17 13:07 | AMC |
| Wet Chemistry by Method 9056A | WG966056 | 1 | 04/01/17 09:18 | 04/01/17 09:18 | KCF |
| Wet Chemistry by Method 9060A | WG967101 | 1 | 04/05/17 19:14 | 04/05/17 19:14 | SJM |
| Metals (ICPMS) by Method 6020 | WG966260 | 1 | 04/05/17 08:06 | 04/05/17 18:06 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 05:24 | 04/04/17 05:24 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 18:25 | 04/05/17 18:25 | LRL |

## SMW-3-033017 L899472-03 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 10:20 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 18:45 | 04/05/17 18:45 | LRL |

## N7-033017 L899472-04 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 12:34 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG966192 | 1 | 04/01/17 13:15 | 04/01/17 13:15 | AMC |
| Wet Chemistry by Method 9056A | WG966056 | 1 | 04/01/17 11:42 | 04/01/17 11:42 | KCF |
| Wet Chemistry by Method 9060A | WG967101 | 1 | 04/05/17 19:32 | 04/05/17 19:32 | SJM |
| Metals (ICPMS) by Method 6020 | WG966260 | 1 | 04/05/17 08:06 | 04/05/17 18:09 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 05:40 | 04/04/17 05:40 | MJ |
| Volatile Organic Compounds (GC) by Method RSK175 | WG967102 | 40 | 04/04/17 17:19 | 04/04/17 17:19 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 19:05 | 04/05/17 19:05 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 5 | 04/06/17 18:41 | 04/06/17 18:41 | JHH |

## W-MW-01-033017 L899472-05 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 12:30 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG966192 | 1 | 04/01/17 13:22 | 04/01/17 13:22 | AMC |
| Wet Chemistry by Method 9056A | WG966372 | 1 | 04/01/17 09:11 | 04/01/17 09:11 | KCF |
| Wet Chemistry by Method 9060A | WG967101 | 1 | 04/05/17 20:00 | 04/05/17 20:00 | SJM |
| Metals (ICPMS) by Method 6020 | WG966260 | 1 | 04/05/17 08:06 | 04/05/17 18:13 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG966794 | 1 | 04/04/17 06:14 | 04/04/17 06:14 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 19:24 | 04/05/17 19:24 | LRL |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/06/17 18:54 | 04/06/17 18:54 | JHH |

## MW302-033017 L899472-06 GW

Collected by: Shannon McKernan | Collected date/time: 03/30/17 15:00 | Received date/time: 03/31/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG967289 | 1 | 04/05/17 19:45 | 04/05/17 19:45 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.75 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:05 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:05 | WG967289 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *04/05/2017 18:05* | WG967289 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 18:05* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *94.7* | | | *80.0-120* | | *04/05/2017 18:05* | WG967289 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 253000 | | 2710 | 20000 | 1 | 04/01/2017 13:07 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 36000 | | 51.9 | 1000 | 1 | 04/01/2017 09:18 | WG966056 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/01/2017 09:18 | WG966056 |
| Sulfate | 18800 | | 77.4 | 5000 | 1 | 04/01/2017 09:18 | WG966056 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 3440 | | 102 | 1000 | 1 | 04/05/2017 19:14 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 487 | | 15.0 | 100 | 1 | 04/05/2017 18:06 | WG966260 |
| Manganese | 178 | | 0.250 | 5.00 | 1 | 04/05/2017 18:06 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 170 | | 0.287 | 0.678 | 1 | 04/04/2017 05:24 | WG966794 |
| Ethane | 3.35 | | 0.296 | 1.29 | 1 | 04/04/2017 05:24 | WG966794 |
| Ethene | 2.71 | | 0.422 | 1.27 | 1 | 04/04/2017 05:24 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.84 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:25 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| cis-1,2-Dichloroethene | 3.97 | | 0.0933 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Naphthalene | 0.217 | B J | 0.174 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:25 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 18:25* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:25* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.3* | | | *80.0-120* | | *04/05/2017 18:25* | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.40 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:45 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:45 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 18:45* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:45* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *97.2* | | | *80.0-120* | | *04/05/2017 18:45* | WG967289 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 118000 | | 2710 | 20000 | 1 | 04/01/2017 13:15 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 4730 | | 51.9 | 1000 | 1 | 04/01/2017 11:42 | WG966056 |
| Nitrate | 6870 | | 22.7 | 100 | 1 | 04/01/2017 11:42 | WG966056 |
| Sulfate | 25200 | | 77.4 | 5000 | 1 | 04/01/2017 11:42 | WG966056 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1350 | | 102 | 1000 | 1 | 04/05/2017 19:32 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 120 | | 15.0 | 100 | 1 | 04/05/2017 18:09 | WG966260 |
| Manganese | 1500 | | 0.250 | 5.00 | 1 | 04/05/2017 18:09 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 11000 | | 11.5 | 27.1 | 40 | 04/04/2017 17:19 | WG967102 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/04/2017 05:40 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 05:40 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.16 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:05 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Benzene | 0.178 | J | 0.0896 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloroethene | 0.773 | | 0.188 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| cis-1,2-Dichloroethene | 125 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,2-Dichloroethene | 0.396 | J | 0.152 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Naphthalene | 0.189 | B J | 0.174 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Tetrachloroethene | 280 | | 0.995 | 2.50 | 5 | 04/06/2017 18:41 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Trichloroethene | 50.4 | | 0.153 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Vinyl chloride | 0.310 | J J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:05 | WG967289 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:41* | WG967289 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/05/2017 19:05* | WG967289 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 19:05* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/06/2017 18:41* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.4* | | | *80.0-120* | | *04/06/2017 18:41* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *96.0* | | | *80.0-120* | | *04/05/2017 19:05* | WG967289 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 211000 | | 2710 | 20000 | 1 | 04/01/2017 13:22 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 23800 | | 51.9 | 1000 | 1 | 04/01/2017 09:11 | WG966372 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/01/2017 09:11 | WG966372 |
| Sulfate | 29000 | | 77.4 | 5000 | 1 | 04/01/2017 09:11 | WG966372 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1840 | | 102 | 1000 | 1 | 04/05/2017 20:00 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 18200 | | 15.0 | 100 | 1 | 04/05/2017 18:13 | WG966260 |
| Manganese | 542 | | 0.250 | 5.00 | 1 | 04/05/2017 18:13 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 367 | | 0.287 | 0.678 | 1 | 04/04/2017 06:14 | WG966794 |
| Ethane | 0.757 | J | 0.296 | 1.29 | 1 | 04/04/2017 06:14 | WG966794 |
| Ethene | 1.27 | J | 0.422 | 1.27 | 1 | 04/04/2017 06:14 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.56 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:24 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| cis-1,2-Dichloroethene | 0.491 | J | 0.0933 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Tetrachloroethene | 0.330 | J | 0.199 | 0.500 | 1 | 04/06/2017 18:54 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Trichloroethene | 0.203 | J | 0.153 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Vinyl chloride | 1.83 | J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:24 | WG967289 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 18:54* | WG967289 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *04/05/2017 19:24* | WG967289 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:54* | WG967289 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 19:24* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.5* | | | *80.0-120* | | *04/06/2017 18:54* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *97.4* | | | *80.0-120* | | *04/05/2017 19:24* | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Acetone | 1.27 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:45 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:45 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 19:45* | WG967289 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *04/05/2017 19:45* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *96.3* | | | *80.0-120* | | *04/05/2017 19:45* | WG967289 |

## Method Blank (MB)

(MB) R3207955-1 04/01/17 12:26

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity | 3490 | J | 2710 | 20000 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207955-3 04/01/17 13:36 • (LCSD) R3207955-4 04/01/17 14:57

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity | 100000 | 95900 | 98000 | 96.0 | 98.0 | 85.0-115 | | | 2.00 | 20 |

## Method Blank (MB)

(MB) R3207649-1 04/01/17 05:47

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L899448-04 Original Sample (OS) • Duplicate (DUP)

(OS) L899448-04 04/01/17 08:39 • (DUP) R3207649-4 04/01/17 09:31

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 24900 | 25200 | 1 | 1 | | 15 |
| Nitrate | ND | 25.9 | 1 | 0 | | 15 |
| Sulfate | 10800 | 10700 | 1 | 1 | | 15 |

## L899437-13 Original Sample (OS) • Duplicate (DUP)

(OS) L899437-13 04/01/17 14:17 • (DUP) R3207649-7 04/01/17 14:30

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 466 | 446 | 1 | 4 | J | 15 |
| Nitrate | U | 0.000 | 1 | 0 | | 15 |
| Sulfate | U | 0.000 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207649-2 04/01/17 06:00 • (LCSD) R3207649-3 04/01/17 06:13

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 41700 | 41600 | 104 | 104 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8620 | 8590 | 108 | 107 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 40300 | 39900 | 101 | 100 | 80-120 | | | 1 | 15 |

## L899437-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L899437-14 04/01/17 13:52 • (MS) R3207649-5 04/01/17 14:05

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 322 | 55000 | 109 | 1 | 80-120 | |
| Nitrate | 5000 | U | 5320 | 106 | 1 | 80-120 | |

## L899437-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L899437-14 04/01/17 13:52 • (MS) R3207649-5 04/01/17 14:05

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Sulfate | 50000 | U | 53200 | 106 | 1 | 80-120 | |

## L899463-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899463-01 04/01/17 12:47 • (MS) R3207649-8 04/01/17 15:09 • (MSD) R3207649-9 04/01/17 15:22

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 34600 | 87400 | 87000 | 106 | 105 | 1 | 80-120 | | | 1 | 15 |
| Nitrate | 5000 | U | 5240 | 5300 | 105 | 106 | 1 | 80-120 | | | 1 | 15 |
| Sulfate | 50000 | 43900 | 89400 | 89400 | 91 | 91 | 1 | 80-120 | | | 0 | 15 |

## Method Blank (MB)

(MB) R3207677-1 04/01/17 06:31

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L899722-03 Original Sample (OS) • Duplicate (DUP)

(OS) L899722-03 04/01/17 17:57 • (DUP) R3207677-6 04/01/17 18:12

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 31100 | 31100 | 1 | 0 | | 15 |
| Nitrate | 982 | 982 | 1 | 0 | | 15 |
| Sulfate | 3970 | 4010 | 1 | 1 | J | 15 |

## L899706-02 Original Sample (OS) • Duplicate (DUP)

(OS) L899706-02 04/01/17 14:52 • (DUP) R3207677-4 04/01/17 15:07

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 5200 | 4740 | 1 | 9 | | 15 |
| Nitrate | U | 0.000 | 1 | 0 | | 15 |
| Sulfate | 4730 | 4710 | 1 | 0 | J | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207677-2 04/01/17 06:46 • (LCSD) R3207677-3 04/01/17 07:02

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Chloride | 40000 | 39100 | 39300 | 98 | 98 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8210 | 8250 | 103 | 103 | 80-120 | | | 1 | 15 |
| Sulfate | 40000 | 38600 | 38900 | 96 | 97 | 80-120 | | | 1 | 15 |

## L899722-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899722-12 04/01/17 17:41 • (MS) R3207677-7 04/01/17 19:29 • (MSD) R3207677-8 04/01/17 19:45

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Chloride | 50000 | 1670 | 53300 | 52900 | 103 | 102 | 1 | 80-120 | | | 1 | 15 |
| Nitrate | 5000 | 84.8 | 5070 | 5200 | 100 | 102 | 1 | 80-120 | | | 2 | 15 |

## L899706-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L899706-04 04/01/17 15:22 • (MS) R3207677-5 04/01/17 16:09

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 3580 | 55800 | 104 | 1 | 80-120 | |
| Nitrate | 5000 | 630 | 5860 | 105 | 1 | 80-120 | |
| Sulfate | 50000 | 3760 | 56500 | 106 | 1 | 80-120 | |

## Method Blank (MB)

(MB) R3209080-1 04/05/17 09:39

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L899437-05 Original Sample (OS) • Duplicate (DUP)

(OS) L899437-05 04/05/17 11:19 • (DUP) R3209080-2 04/05/17 11:32

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 2640 | 2640 | 1 | 0 | | 20 |

## L899472-04 Original Sample (OS) • Duplicate (DUP)

(OS) L899472-04 04/05/17 19:32 • (DUP) R3209080-7 04/05/17 19:47

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 1350 | 1380 | 1 | 3 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3209080-3 04/05/17 12:35 • (LCSD) R3209080-4 04/05/17 14:00

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 70300 | 69400 | 94 | 92 | 85-115 | | | 1 | 20 |

## L899437-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899437-10 04/05/17 15:06 • (MS) R3209080-5 04/05/17 15:24 • (MSD) R3209080-6 04/05/17 15:42

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 488 | 53800 | 54600 | 107 | 108 | 1 | 80-120 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3208631-1 04/05/17 16:31

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | U | | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208631-2 04/05/17 16:35 • (LCSD) R3208631-3 04/05/17 16:38

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5430 | 5320 | 109 | 106 | 80-120 | | | 2 | 20 |
| Manganese | 50.0 | 50.9 | 49.8 | 102 | 100 | 80-120 | | | 2 | 20 |

## L899203-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899203-22 04/05/17 16:42 • (MS) R3208631-5 04/05/17 16:49 • (MSD) R3208631-6 04/05/17 16:52

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | 437 | 5660 | 5720 | 104 | 106 | 1 | 75-125 | | | 1 | 20 |
| Manganese | 50.0 | 40.2 | 87.9 | 90.4 | 95 | 100 | 1 | 75-125 | | | 3 | 20 |

## Method Blank (MB)

(MB) R3208061-1 04/04/17 00:07

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L899438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899438-01 04/04/17 03:10 • (DUP) R3208061-2 04/04/17 03:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 8.93 | 1 | 3.50 | J | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L899439-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899439-01 04/04/17 03:44 • (DUP) R3208061-3 04/04/17 06:47

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208061-4 04/04/17 07:04 • (LCSD) R3208061-5 04/04/17 07:20

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 70.0 | 68.4 | 103 | 101 | 70.0-130 | | | 2.30 | 20 |
| Ethane | 129 | 125 | 123 | 97.0 | 95.0 | 70.0-130 | | | 2.06 | 20 |
| Ethene | 127 | 123 | 120 | 96.8 | 94.6 | 70.0-130 | | | 2.33 | 20 |

## Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |

## L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 1740 | 1840 | 1 | 5.65 | | 20 |

## L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 69.6 | 68.8 | 103 | 101 | 70.0-130 | | | 1.12 | 20 |

## Method Blank (MB)

(MB) R3208524-3 04/05/17 15:12

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | 1.43 | J | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |

## Method Blank (MB)

(MB) R3208524-3 04/05/17 15:12

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | 0.305 | J | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | 0.180 | J | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | 0.144 | J | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *96.6* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208524-1 04/05/17 14:11 • (LCSD) R3208524-2 04/05/17 14:31

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 111 | 151 | 89.1 | 121 | 10.0-160 | | J3 | 30.2 | 23 |
| Acrylonitrile | 125 | 126 | 141 | 101 | 113 | 60.0-142 | | | 11.1 | 20 |
| Benzene | 25.0 | 22.4 | 21.9 | 89.5 | 87.5 | 69.0-123 | | | 2.34 | 20 |
| Bromobenzene | 25.0 | 23.3 | 23.5 | 93.0 | 94.2 | 79.0-120 | | | 1.23 | 20 |
| Bromodichloromethane | 25.0 | 25.0 | 24.4 | 100 | 97.8 | 76.0-120 | | | 2.40 | 20 |
| Bromochloromethane | 25.0 | 24.1 | 24.1 | 96.4 | 96.6 | 76.0-122 | | | 0.150 | 20 |
| Bromoform | 25.0 | 18.8 | 19.9 | 75.0 | 79.6 | 67.0-132 | | | 5.95 | 20 |
| Bromomethane | 25.0 | 31.4 | 31.3 | 126 | 125 | 18.0-160 | | | 0.290 | 20 |
| n-Butylbenzene | 25.0 | 26.0 | 25.1 | 104 | 101 | 72.0-126 | | | 3.31 | 20 |
| sec-Butylbenzene | 25.0 | 22.1 | 22.3 | 88.3 | 89.1 | 74.0-121 | | | 0.890 | 20 |
| tert-Butylbenzene | 25.0 | 19.8 | 20.0 | 79.1 | 79.9 | 75.0-122 | | | 0.940 | 20 |
| Carbon disulfide | 25.0 | 30.6 | 29.5 | 122 | 118 | 55.0-127 | | | 3.48 | 20 |
| Carbon tetrachloride | 25.0 | 21.6 | 21.9 | 86.4 | 87.6 | 63.0-122 | | | 1.35 | 20 |
| Chlorobenzene | 25.0 | 22.8 | 22.6 | 91.3 | 90.5 | 79.0-121 | | | 0.850 | 20 |
| Chlorodibromomethane | 25.0 | 23.2 | 23.5 | 92.8 | 93.9 | 75.0-125 | | | 1.10 | 20 |
| Chloroethane | 25.0 | 32.5 | 31.5 | 130 | 126 | 47.0-152 | | | 3.05 | 20 |
| 2-Chloroethyl vinyl ether | 125 | 109 | 106 | 87.3 | 84.4 | 10.0-160 | | | 3.36 | 22 |
| Chloroform | 25.0 | 25.5 | 25.0 | 102 | 100 | 72.0-121 | | | 1.74 | 20 |
| Chloromethane | 25.0 | 28.7 | 28.5 | 115 | 114 | 48.0-139 | | | 0.880 | 20 |
| 2-Chlorotoluene | 25.0 | 23.3 | 23.5 | 93.1 | 94.1 | 74.0-122 | | | 1.14 | 20 |
| 4-Chlorotoluene | 25.0 | 23.4 | 23.3 | 93.6 | 93.3 | 79.0-120 | | | 0.330 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 21.9 | 23.3 | 87.7 | 93.2 | 64.0-127 | | | 6.09 | 20 |
| 1,2-Dibromoethane | 25.0 | 22.6 | 22.9 | 90.4 | 91.8 | 77.0-123 | | | 1.54 | 20 |
| Dibromomethane | 25.0 | 21.8 | 21.3 | 87.1 | 85.3 | 78.0-120 | | | 2.03 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 24.3 | 23.6 | 97.1 | 94.6 | 80.0-120 | | | 2.62 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 20.4 | 20.6 | 81.4 | 82.4 | 72.0-123 | | | 1.22 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 23.7 | 23.0 | 94.9 | 92.0 | 77.0-120 | | | 3.08 | 20 |
| Dichlorodifluoromethane | 25.0 | 27.1 | 25.6 | 108 | 102 | 49.0-155 | | | 5.71 | 20 |
| 1,1-Dichloroethane | 25.0 | 27.2 | 26.3 | 109 | 105 | 70.0-126 | | | 3.25 | 20 |
| 1,2-Dichloroethane | 25.0 | 27.5 | 27.5 | 110 | 110 | 67.0-126 | | | 0.250 | 20 |
| 1,1-Dichloroethene | 25.0 | 30.8 | 29.3 | 123 | 117 | 64.0-129 | | | 4.92 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 25.4 | 25.2 | 102 | 101 | 73.0-120 | | | 0.720 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 25.1 | 24.1 | 101 | 96.6 | 71.0-121 | | | 4.00 | 20 |
| 1,2-Dichloropropane | 25.0 | 25.8 | 25.5 | 103 | 102 | 75.0-125 | | | 0.970 | 20 |
| 1,1-Dichloropropene | 25.0 | 26.3 | 25.8 | 105 | 103 | 71.0-129 | | | 2.00 | 20 |
| 1,3-Dichloropropane | 25.0 | 23.8 | 24.1 | 95.1 | 96.3 | 80.0-121 | | | 1.26 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 27.6 | 27.0 | 110 | 108 | 79.0-123 | | | 2.05 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 26.5 | 26.5 | 106 | 106 | 74.0-127 | | | 0.240 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 22.1 | 23.9 | 88.4 | 95.4 | 55.0-134 | | | 7.66 | 20 |
| 2,2-Dichloropropane | 25.0 | 24.4 | 25.0 | 97.7 | 100 | 60.0-125 | | | 2.53 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208524-1 04/05/17 14:11 • (LCSD) R3208524-2 04/05/17 14:31

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | 28.8 | 28.4 | 115 | 114 | 59.0-133 | | | 1.46 | 20 |
| Ethylbenzene | 25.0 | 20.5 | 20.0 | 81.9 | 80.1 | 77.0-120 | | | 2.24 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 21.4 | 21.9 | 85.6 | 87.6 | 64.0-131 | | | 2.30 | 20 |
| 2-Hexanone | 125 | 126 | 136 | 101 | 109 | 58.0-147 | | | 7.24 | 20 |
| n-Hexane | 25.0 | 23.4 | 22.7 | 93.6 | 91.0 | 56.0-124 | | | 2.87 | 20 |
| Iodomethane | 125 | 149 | 147 | 119 | 117 | 57.0-140 | | | 1.38 | 20 |
| Isopropylbenzene | 25.0 | 20.3 | 20.3 | 81.2 | 81.1 | 75.0-120 | | | 0.160 | 20 |
| p-Isopropyltoluene | 25.0 | 22.5 | 22.7 | 90.0 | 90.9 | 74.0-126 | | | 0.970 | 20 |
| 2-Butanone (MEK) | 125 | 138 | 153 | 111 | 122 | 37.0-158 | | | 9.98 | 20 |
| Methylene Chloride | 25.0 | 26.4 | 26.0 | 106 | 104 | 66.0-121 | | | 1.61 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 157 | 164 | 126 | 131 | 59.0-143 | | | 4.27 | 20 |
| Methyl tert-butyl ether | 25.0 | 27.8 | 27.5 | 111 | 110 | 64.0-123 | | | 1.03 | 20 |
| Naphthalene | 25.0 | 22.1 | 23.5 | 88.3 | 94.2 | 62.0-128 | | | 6.47 | 20 |
| n-Propylbenzene | 25.0 | 20.9 | 21.1 | 83.8 | 84.4 | 79.0-120 | | | 0.720 | 20 |
| Styrene | 25.0 | 22.3 | 22.3 | 89.0 | 89.1 | 78.0-124 | | | 0.120 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.3 | 22.6 | 89.0 | 90.3 | 75.0-122 | | | 1.44 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 22.0 | 22.6 | 88.0 | 90.4 | 71.0-122 | | | 2.65 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 27.7 | 26.3 | 111 | 105 | 61.0-136 | | | 5.02 | 20 |
| Tetrachloroethene | 25.0 | 21.6 | 21.0 | 86.5 | 83.9 | 70.0-127 | | | 3.04 | 20 |
| Toluene | 25.0 | 20.9 | 20.2 | 83.4 | 80.8 | 77.0-120 | | | 3.16 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 22.4 | 23.7 | 89.7 | 94.8 | 61.0-133 | | | 5.52 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 22.0 | 22.9 | 88.0 | 91.5 | 69.0-129 | | | 3.85 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 26.3 | 25.4 | 105 | 102 | 68.0-122 | | | 3.43 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 22.4 | 22.6 | 89.6 | 90.5 | 78.0-120 | | | 0.950 | 20 |
| Trichloroethene | 25.0 | 23.8 | 23.1 | 95.1 | 92.5 | 78.0-120 | | | 2.78 | 20 |
| Trichlorofluoromethane | 25.0 | 29.9 | 29.4 | 120 | 118 | 56.0-137 | | | 1.53 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 21.7 | 22.8 | 86.9 | 91.2 | 72.0-124 | | | 4.86 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 22.7 | 22.7 | 90.6 | 90.8 | 75.0-120 | | | 0.190 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.4 | 22.9 | 93.5 | 91.5 | 75.0-120 | | | 2.17 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 22.9 | 22.8 | 91.6 | 91.3 | 75.0-120 | | | 0.280 | 20 |
| Vinyl acetate | 125 | 140 | 131 | 112 | 105 | 46.0-160 | | | 6.19 | 20 |
| Vinyl chloride | 25.0 | 33.5 | 32.6 | 134 | 131 | 64.0-133 | J4 | | 2.47 | 20 |
| Xylenes, Total | 75.0 | 60.4 | 59.9 | 80.5 | 79.9 | 77.0-120 | | | 0.830 | 20 |
| *(S) Toluene-d8* | | | | *109* | *108* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *108* | *110* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *94.3* | *97.8* | *80.0-120* | | | | |

## L899630-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899630-02 04/05/17 21:25 • (MS) R3208524-4 04/05/17 21:45 • (MSD) R3208524-5 04/05/17 22:05

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | ND | 84.4 | 89.5 | 65.7 | 69.8 | 1 | 10.0-139 | | | 5.92 | 25 |
| Acrylonitrile | 125 | ND | 144 | 148 | 115 | 118 | 1 | 46.0-159 | | | 2.98 | 23 |
| Benzene | 25.0 | ND | 20.5 | 20.6 | 81.9 | 82.5 | 1 | 34.0-147 | | | 0.700 | 20 |
| Bromobenzene | 25.0 | ND | 23.9 | 23.5 | 95.6 | 93.9 | 1 | 51.0-137 | | | 1.80 | 20 |
| Bromodichloromethane | 25.0 | ND | 25.2 | 25.3 | 101 | 101 | 1 | 52.0-135 | | | 0.440 | 20 |
| Bromochloromethane | 25.0 | ND | 23.0 | 22.8 | 91.9 | 91.3 | 1 | 53.0-138 | | | 0.600 | 20 |
| Bromoform | 25.0 | ND | 21.6 | 21.7 | 86.5 | 87.0 | 1 | 50.0-146 | | | 0.580 | 20 |
| Bromomethane | 25.0 | ND | 25.2 | 25.7 | 101 | 103 | 1 | 10.0-160 | | | 1.76 | 23 |
| n-Butylbenzene | 25.0 | ND | 26.4 | 26.4 | 105 | 106 | 1 | 50.0-144 | | | 0.0300 | 20 |
| sec-Butylbenzene | 25.0 | ND | 23.3 | 22.9 | 93.0 | 91.5 | 1 | 48.0-143 | | | 1.65 | 20 |
| tert-Butylbenzene | 25.0 | ND | 20.8 | 20.8 | 83.3 | 83.1 | 1 | 50.0-142 | | | 0.170 | 20 |
| Carbon disulfide | 25.0 | ND | 18.9 | 19.0 | 75.5 | 75.9 | 1 | 10.0-147 | | | 0.560 | 20 |
| Carbon tetrachloride | 25.0 | ND | 20.8 | 21.2 | 83.4 | 84.6 | 1 | 41.0-138 | | | 1.47 | 20 |
| Chlorobenzene | 25.0 | ND | 22.9 | 22.7 | 91.6 | 90.6 | 1 | 52.0-141 | | | 1.15 | 20 |
| Chlorodibromomethane | 25.0 | ND | 24.9 | 24.7 | 99.6 | 98.9 | 1 | 54.0-142 | | | 0.750 | 20 |
| Chloroethane | 25.0 | ND | 26.7 | 26.9 | 107 | 108 | 1 | 23.0-160 | | | 0.750 | 20 |
| 2-Chloroethyl vinyl ether | 125 | ND | ND | ND | 0.000 | 0.000 | 1 | 10.0-160 | J6 | J6 | 0.000 | 40 |
| Chloroform | 25.0 | ND | 24.7 | 24.6 | 98.9 | 98.5 | 1 | 50.0-139 | | | 0.380 | 20 |
| Chloromethane | 25.0 | ND | 22.4 | 22.5 | 89.7 | 90.2 | 1 | 14.0-151 | | | 0.560 | 20 |
| 2-Chlorotoluene | 25.0 | ND | 24.1 | 23.7 | 96.2 | 95.0 | 1 | 48.0-142 | | | 1.34 | 20 |
| 4-Chlorotoluene | 25.0 | ND | 23.9 | 23.6 | 95.4 | 94.4 | 1 | 52.0-139 | | | 1.01 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 24.2 | 25.7 | 96.7 | 103 | 1 | 49.0-144 | | | 5.91 | 24 |
| 1,2-Dibromoethane | 25.0 | ND | 23.5 | 23.0 | 94.1 | 91.9 | 1 | 54.0-140 | | | 2.39 | 20 |
| Dibromomethane | 25.0 | ND | 22.1 | 22.0 | 88.2 | 88.1 | 1 | 53.0-138 | | | 0.200 | 20 |
| 1,2-Dichlorobenzene | 25.0 | ND | 25.1 | 25.0 | 101 | 100 | 1 | 56.0-139 | | | 0.560 | 20 |
| 1,3-Dichlorobenzene | 25.0 | ND | 21.7 | 21.7 | 86.7 | 86.8 | 1 | 50.0-141 | | | 0.100 | 20 |
| 1,4-Dichlorobenzene | 25.0 | ND | 24.3 | 23.9 | 97.4 | 95.8 | 1 | 53.0-136 | | | 1.66 | 20 |
| Dichlorodifluoromethane | 25.0 | ND | 23.7 | 24.4 | 94.7 | 97.5 | 1 | 20.0-160 | | | 2.84 | 21 |
| 1,1-Dichloroethane | 25.0 | ND | 25.6 | 25.7 | 103 | 103 | 1 | 47.0-143 | | | 0.160 | 20 |
| 1,2-Dichloroethane | 25.0 | ND | 26.7 | 26.6 | 107 | 106 | 1 | 47.0-141 | | | 0.410 | 20 |
| 1,1-Dichloroethene | 25.0 | ND | 26.4 | 26.9 | 106 | 108 | 1 | 31.0-148 | | | 1.80 | 20 |
| cis-1,2-Dichloroethene | 25.0 | ND | 24.0 | 23.9 | 95.9 | 95.6 | 1 | 43.0-142 | | | 0.300 | 20 |
| trans-1,2-Dichloroethene | 25.0 | ND | 21.7 | 21.8 | 86.8 | 87.2 | 1 | 36.0-141 | | | 0.400 | 20 |
| 1,2-Dichloropropane | 25.0 | ND | 26.0 | 26.2 | 104 | 105 | 1 | 51.0-141 | | | 0.860 | 20 |
| 1,1-Dichloropropene | 25.0 | ND | 23.5 | 23.7 | 93.8 | 94.9 | 1 | 42.0-146 | | | 1.09 | 20 |
| 1,3-Dichloropropane | 25.0 | ND | 24.6 | 24.5 | 98.6 | 97.9 | 1 | 58.0-139 | | | 0.670 | 20 |
| cis-1,3-Dichloropropene | 25.0 | ND | 27.1 | 27.0 | 108 | 108 | 1 | 53.0-139 | | | 0.400 | 20 |
| trans-1,3-Dichloropropene | 25.0 | ND | 26.8 | 26.7 | 107 | 107 | 1 | 51.0-143 | | | 0.480 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | ND | 24.5 | 24.4 | 97.9 | 97.6 | 1 | 40.0-150 | | | 0.340 | 21 |
| 2,2-Dichloropropane | 25.0 | ND | 25.2 | 25.8 | 101 | 103 | 1 | 43.0-139 | | | 2.28 | 20 |

## L899630-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899630-02 04/05/17 21:25 • (MS) R3208524-4 04/05/17 21:45 • (MSD) R3208524-5 04/05/17 22:05

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Di-isopropyl ether | 25.0 | ND | 28.0 | 28.1 | 112 | 113 | 1 | 44.0-144 | | | 0.540 | 20 |
| Ethylbenzene | 25.0 | ND | 20.1 | 19.6 | 80.2 | 78.4 | 1 | 42.0-147 | | | 2.32 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | ND | 23.6 | 23.8 | 94.5 | 95.2 | 1 | 44.0-146 | | | 0.710 | 21 |
| 2-Hexanone | 125 | ND | 127 | 129 | 102 | 103 | 1 | 36.0-145 | | | 1.46 | 23 |
| n-Hexane | 25.0 | ND | 16.7 | 17.1 | 66.7 | 68.3 | 1 | 13.0-145 | | | 2.38 | 20 |
| Iodomethane | 125 | ND | 135 | 134 | 108 | 107 | 1 | 30.0-151 | | | 0.910 | 20 |
| Isopropylbenzene | 25.0 | ND | 21.0 | 20.6 | 83.8 | 82.4 | 1 | 48.0-141 | | | 1.75 | 20 |
| p-Isopropyltoluene | 25.0 | ND | 23.6 | 23.7 | 94.3 | 94.8 | 1 | 49.0-146 | | | 0.570 | 20 |
| 2-Butanone (MEK) | 125 | ND | 123 | 128 | 98.2 | 103 | 1 | 12.0-149 | | | 4.50 | 24 |
| Methylene Chloride | 25.0 | ND | 22.1 | 22.2 | 88.6 | 88.8 | 1 | 42.0-135 | | | 0.220 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | ND | 174 | 176 | 139 | 141 | 1 | 44.0-160 | | | 1.33 | 22 |
| Methyl tert-butyl ether | 25.0 | ND | 27.3 | 27.6 | 109 | 110 | 1 | 42.0-142 | | | 0.890 | 20 |
| Naphthalene | 25.0 | ND | 23.9 | 24.2 | 95.5 | 96.8 | 1 | 42.0-146 | | | 1.40 | 24 |
| n-Propylbenzene | 25.0 | ND | 21.3 | 21.0 | 85.2 | 84.1 | 1 | 47.0-144 | | | 1.27 | 20 |
| Styrene | 25.0 | ND | 22.4 | 22.2 | 89.5 | 88.8 | 1 | 47.0-147 | | | 0.780 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 24.3 | 23.5 | 97.1 | 93.9 | 1 | 52.0-140 | | | 3.34 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 25.1 | 24.9 | 100 | 99.8 | 1 | 46.0-149 | | | 0.580 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | ND | 25.7 | 26.1 | 103 | 104 | 1 | 40.0-151 | | | 1.72 | 21 |
| Tetrachloroethene | 25.0 | ND | 21.1 | 20.7 | 84.3 | 82.9 | 1 | 38.0-147 | | | 1.63 | 20 |
| Toluene | 25.0 | ND | 20.0 | 19.7 | 79.9 | 78.8 | 1 | 42.0-141 | | | 1.30 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 24.8 | 25.3 | 99.0 | 101 | 1 | 45.0-145 | | | 2.33 | 22 |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 24.4 | 24.9 | 97.7 | 99.6 | 1 | 49.0-147 | | | 1.91 | 21 |
| 1,1,1-Trichloroethane | 25.0 | ND | 25.0 | 25.2 | 100 | 101 | 1 | 46.0-140 | | | 0.670 | 20 |
| 1,1,2-Trichloroethane | 25.0 | ND | 23.8 | 23.7 | 95.3 | 95.0 | 1 | 54.0-139 | | | 0.310 | 20 |
| Trichloroethene | 25.0 | ND | 22.6 | 21.9 | 90.4 | 87.6 | 1 | 32.0-156 | | | 3.13 | 20 |
| Trichlorofluoromethane | 25.0 | ND | 27.0 | 27.4 | 108 | 109 | 1 | 32.0-152 | | | 1.24 | 20 |
| 1,2,3-Trichloropropane | 25.0 | ND | 24.5 | 23.9 | 97.8 | 95.7 | 1 | 54.0-143 | | | 2.25 | 21 |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 23.8 | 23.6 | 95.4 | 94.4 | 1 | 41.0-146 | | | 0.990 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | ND | 23.4 | 23.1 | 93.6 | 92.4 | 1 | 48.0-138 | | | 1.26 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 23.4 | 23.1 | 93.5 | 92.6 | 1 | 44.0-143 | | | 1.00 | 20 |
| Vinyl acetate | 125 | ND | 171 | 174 | 136 | 139 | 1 | 30.0-160 | | | 1.84 | 20 |
| Vinyl chloride | 25.0 | ND | 26.8 | 27.0 | 107 | 108 | 1 | 24.0-153 | | | 0.810 | 20 |
| Xylenes, Total | 75.0 | ND | 60.0 | 59.2 | 79.6 | 78.5 | 1 | 41.0-148 | | | 1.34 | 20 |
| *(S) Toluene-d8* | | | | | *108* | *108* | | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | | *105* | *105* | | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *95.6* | *94.2* | | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J0 | J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

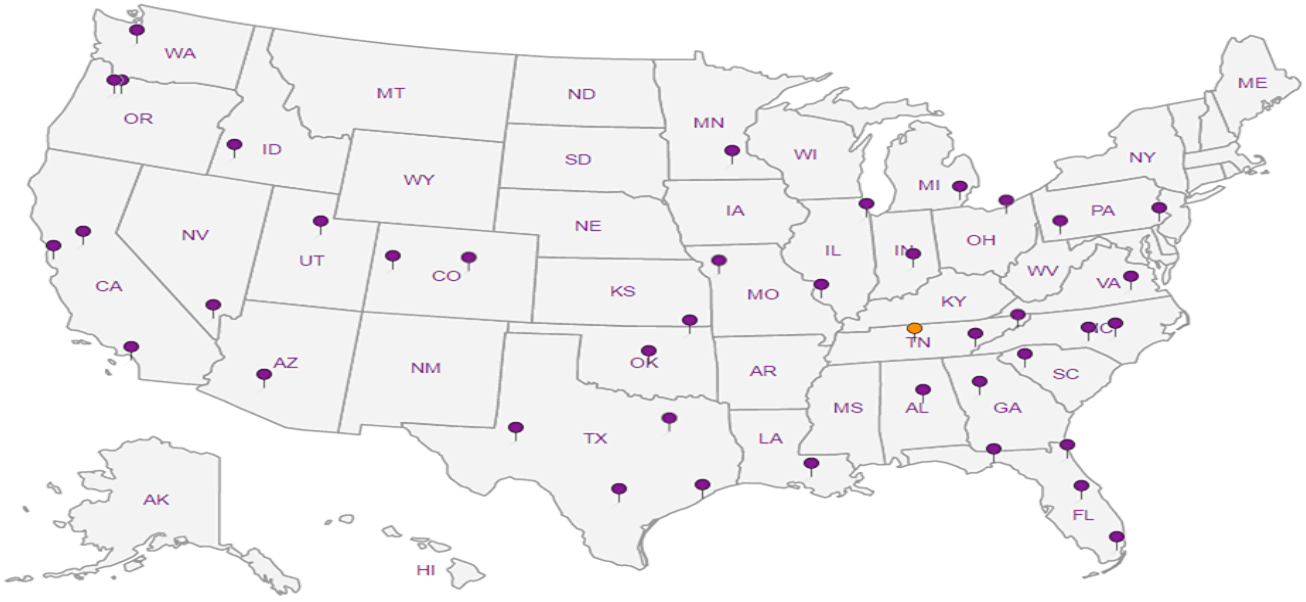
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Shannon McKernan

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW14-033017 | GRAB | GW | 11.8 | 3/30/17 | 0846 | 4 | | | | | X | | | -01 |
| MW104-033017 | Grab | GW | 125 | 3/30/17 | 1010 | 9 | X | | X | X | X | X | | 02 |
| SMW-3-033017 | GRAB | GW | 14.43 | 3/30/17 | 1020 | 4 | | | | | X | | | 03 |
| JS-033017 | GRAB | GW | 25 | 3/20/17 | 1234 | 9 | X | | X | X | X | X | | 04 |
| W-MW-01-033017 | Grab | GW | 75 | 3/30/17 | 1230 | 9 | X | | X | X | X | X | | 05 |
| MW302-033017 | GRAB | GW | 12 | 3/30/17 | 1500 | 4 | | | | | X | | | 06 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L899177
1125

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 3/30/17 | 1300 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 3.5 -0.3 °C Bottles Received: 39

If preservation required by Login: Date/Time

Date: 3347 Time: 845

Hold:

Condition: NCF / OK

**Susan Peach**

**From:** Jason Romer
**Sent:** Friday, March 31, 2017 2:05 PM
**To:** Reporting
**Subject:** FW: ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472
**Attachments:** 0807_001.pdf

Please scan this email and the attached COC with the COC currently scanned for L899472

Thanks,
Jason

-----Original Message-----
From: Bill Haldeman [mailto:bhaldeman@pesenv.com]
Sent: Friday, March 31, 2017 2:01 PM
To: Jason Romer
Cc: Brian Ford
Subject: RE: ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472

Jason, we erroneously labeled the fourth sample on the COC (ESC #L899472-04). It was labeled J5-033017 when it should have been labeled N7-033017. Attached is a revised COC. Can you revise the sample name in your system? I apologize for the error. Thanks! -Bill

-----Original Message-----
From: Brian Ford [mailto:bford@esclabsciences.com]
Sent: Friday, March 31, 2017 11:35 AM
To: Bill Haldeman
Subject: ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472

**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Shannon McKernan

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES

YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 899472

Table #

Acctnum: PESENVSWA

Template: T121414

Prelogin: P592684

TSR: 110 - Brian Ford

PB: 3-13-17

Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW21A-033017 | GRAB | GW | 11.8 | 3/30/17 | 0946 | 4 | | | | | X | | | |
| MW104-033017 | Grab | GW | 185 | 3/30/17 | 1010 | 9 | X | | X | X | X | X | | |
| SMW-3-033017 | GRAB | GW | 14.43 | 3/30/17 | 1020 | 4 | | | | | X | | | |
| MW-25-033017 | GRAB | GW | 25 | 3/30/17 | 1234 | 9 | X | | X | X | X | X | | |
| W-MW-01-033017 | Grab | GW | 75 | 3/30/17 | 1230 | 9 | X | | X | X | X | X | | |
| MW302-033017 | GRAB | GW | 12 | 3/30/17 | 1500 | 4 | | | | | X | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

SM N1

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| | 3/30/17 | 1300 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

# ESC Lab Sciences
# Non-Conformance Form

| Login #: L899472 | Client: PESENVSWA | Date: 3/31/17 | Evaluated by: Jeremy |
|---|---|---|---|

**Non-Conformance (check applicable items)**

| | Sample Integrity | | Chain of Custody Clarification | | |
|---|---|---|---|---|---|
| | Parameter(s) past holding time | x | Login Clarification Needed | | **If Broken Container:** |
| | Improper temperature | | Chain of custody is incomplete | | Insufficient packing material around container |
| | Improper container type | | Please specify Metals requested. | | Insufficient packing material inside cooler |
| | Improper preservation | | Please specify TCLP requested. | | Improper handling by carrier (FedEx / UPS / Courier |
| | Insufficient sample volume. | | Received additional samples not listed on coc. | | Sample was frozen |
| | Sample is biphasic. | | Sample ids on containers do not match ids on coc | | Container lid not intact |
| | Vials received with headspace. | | Trip Blank not received. | | **If no Chain of Custody:** |
| | Broken container | | Client did not "X" analysis. | | Received by: |
| | Broken container: | | Chain of Custody is missing | | Date/Time: |
| | Sufficient sample remains | | | | Temp./Cont. Rec./pH: |
| | | | | | Carrier: |
| | | | | | Tracking# |

**Login Comments: Received N7 instead of I5-033017. Time Matches. Logged per COC**

| Client informed by: | | Call | | Email | x | Voice Mail | | Date:03/31/17 | Time:1400 |
|---|---|---|---|---|---|---|---|---|---|
| TSR Initials:bjf | Client Contact: Bill Haldeman | | | | | | | | |

**Login Instructions:**

Log as N7-033017

**This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.**

# MEMORANDUM

**TO:** Project File **DATE:** April 25, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** March 30, 2017- Groundwater Samples

**LAB:** ESC Lab ID L899472

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Six (6) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 30, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L899472. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L899472 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.5 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Sample J5-033017 identification on the chain of custody was corrected to read Sample N7-033017 per PES's request on March 31, 2017.

### Holding Times

*USEPA Method 8260C:*
All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for bromoform were identified by the laboratory for all samples associated with analytical batch WG967289 (analyzed on April 5, 2017). The bromoform results are qualified by the laboratory "J0" to indicate that percent difference for the CCV is outside of laboratory acceptance criteria. **All associated sample results for bromoform are non-detected and estimated (UJ).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) are not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- Low levels of acetone, naphthalene, 1,2,3-trichlorobenzene, and 1,2,4-trimethylbenzene detections were reported in the method blank (Batch WG967289). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compounds 1,2,3-trichlorobenzene, and 1,2,4-trimethylbenzene are not detected in associated samples so no action is required. **Low level acetone detections are reported in all associated samples and are qualified as non-detect (U) due to blank contamination. Low level naphthalene detections are reported in samples MW104-033017 and N7-033017 and are qualified as non-detect (U) due to blank contamination.**

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL. No qualifications of the data are made due to the results of the method blank analysis.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs)*:
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD for precision data.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analyses were performed on sample N7-033017 and on a non-client sample within the analytical batch. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussions:

- LCS (Batch WG967289) compound vinyl chloride percent recovery is slightly above laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within, and MS/MSD recoveries are within criteria for these compounds.

- LCS/LCSD (Batch WG967289) RPD for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

*Method RSK-175:*
LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for iron and manganese are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPDs for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD percent recoveries for target analytes are within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.

*Method RSK-175:*
Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on a non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|---|
| | ug/l | | | ug/l | ug/l | | date / time | |
| Acetone | 1.75 | U | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:05 | WG967289 |
| Acrylonitrile | U | | | 0.873 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Benzene | U | | | 0.0896 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromobenzene | U | | | 0.133 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromodichloromethane | U | | | 0.0800 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromochloromethane | U | | | 0.145 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromoform | U | UJ | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Bromomethane | U | | | 0.157 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Butylbenzene | U | | | 0.143 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| sec-Butylbenzene | U | | | 0.134 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| tert-Butylbenzene | U | | | 0.183 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Carbon disulfide | U | | | 0.101 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Carbon tetrachloride | U | | | 0.159 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chlorobenzene | U | | | 0.140 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chlorodibromomethane | U | | | 0.128 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloroethane | U | | | 0.141 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | | 0.877 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloroform | U | | | 0.0860 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Chloromethane | U | | | 0.153 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Chlorotoluene | U | | | 0.111 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 4-Chlorotoluene | U | | | 0.0972 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | | 0.325 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dibromoethane | U | | | 0.193 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Dibromomethane | U | | | 0.117 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichlorobenzene | U | | | 0.101 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3-Dichlorobenzene | U | | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,4-Dichlorobenzene | U | | | 0.121 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Dichlorodifluoromethane | U | | | 0.127 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloroethane | U | | | 0.114 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichloroethane | U | | | 0.108 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloroethene | U | | | 0.188 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| cis-1,2-Dichloroethene | U | | | 0.0933 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,2-Dichloroethene | U | | | 0.152 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2-Dichloropropane | U | | | 0.190 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1-Dichloropropene | U | | | 0.128 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3-Dichloropropane | U | | | 0.147 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| cis-1,3-Dichloropropene | U | | | 0.0976 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,3-Dichloropropene | U | | | 0.222 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | | 0.257 | 5.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 2,2-Dichloropropane | U | | | 0.0929 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Di-isopropyl ether | U | | | 0.0924 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Ethylbenzene | U | | | 0.158 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Hexachloro-1,3-butadiene | U | | | 0.157 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Hexanone | U | | | 0.757 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Hexane | U | | | 0.305 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| Iodomethane | U | | | 0.377 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Isopropylbenzene | U | | | 0.126 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| p-Isopropyltoluene | U | | | 0.138 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 2-Butanone (MEK) | U | | | 1.28 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Methylene Chloride | U | | | 1.07 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | | 0.823 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Methyl tert-butyl ether | U | | | 0.102 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Naphthalene | U | | | 0.174 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| n-Propylbenzene | U | | | 0.162 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Styrene | U | | | 0.117 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | | 0.120 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |



JC 4/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:05 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:05 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:05 | WG967289 |
| *(S) Toluene-d8* | *109* | | | *80.0-120* | | *04/05/2017 18:05* | WG967289 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/05/2017 18:05* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *94.7* | | | *80.0-120* | | *04/05/2017 18:05* | WG967289 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

JG 4/25/17

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 253000 | | 2710 | 20000 | 1 | 04/01/2017 13:07 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 36000 | | 51.9 | 1000 | 1 | 04/01/2017 09:18 | WG966056 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/01/2017 09:18 | WG966056 |
| Sulfate | 18800 | | 77.4 | 5000 | 1 | 04/01/2017 09:18 | WG966056 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 3440 | | 102 | 1000 | 1 | 04/05/2017 19:14 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 487 | | 15.0 | 100 | 1 | 04/05/2017 18:06 | WG966260 |
| Manganese | 178 | | 0.250 | 5.00 | 1 | 04/05/2017 18:06 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 170 | | 0.287 | 0.678 | 1 | 04/04/2017 05:24 | WG966794 |
| Ethane | 3.35 | | 0.296 | 1.29 | 1 | 04/04/2017 05:24 | WG966794 |
| Ethene | 2.71 | | 0.422 | 1.27 | 1 | 04/04/2017 05:24 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.84 U | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:25 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromoform | U UJ | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| cis-1,2-Dichloroethene | 3.97 | | 0.0933 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Naphthalene | 0.217 | BJ | 0.174 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:25 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:25 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:25 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 18:25* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:25* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.3* | | | *80.0-120* | | *04/05/2017 18:25* | WG967289 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|---|
| | ug/l | | | ug/l | ug/l | | date / time | |
| Acetone | 1.40 | U | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 18:45 | WG967289 |
| Acrylonitrile | U | | | 0.873 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Benzene | U | | | 0.0896 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromobenzene | U | | | 0.133 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromodichloromethane | U | | | 0.0800 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromochloromethane | U | | | 0.145 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromoform | U | UJ | J0 | 0.186 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Bromomethane | U | | | 0.157 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Butylbenzene | U | | | 0.143 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| sec-Butylbenzene | U | | | 0.134 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| tert-Butylbenzene | U | | | 0.183 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Carbon disulfide | U | | | 0.101 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Carbon tetrachloride | U | | | 0.159 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chlorobenzene | U | | | 0.140 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chlorodibromomethane | U | | | 0.128 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloroethane | U | | | 0.141 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | | 0.877 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloroform | U | | | 0.0860 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Chloromethane | U | | | 0.153 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Chlorotoluene | U | | | 0.111 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 4-Chlorotoluene | U | | | 0.0972 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | | 0.325 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dibromoethane | U | | | 0.193 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Dibromomethane | U | | | 0.117 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichlorobenzene | U | | | 0.101 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3-Dichlorobenzene | U | | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,4-Dichlorobenzene | U | | | 0.121 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Dichlorodifluoromethane | U | | | 0.127 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloroethane | U | | | 0.114 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichloroethane | U | | | 0.108 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloroethene | U | | | 0.188 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| cis-1,2-Dichloroethene | U | | | 0.0933 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,2-Dichloroethene | U | | | 0.152 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2-Dichloropropane | U | | | 0.190 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1-Dichloropropene | U | | | 0.128 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3-Dichloropropane | U | | | 0.147 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| cis-1,3-Dichloropropene | U | | | 0.0976 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,3-Dichloropropene | U | | | 0.222 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | | 0.257 | 5.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 2,2-Dichloropropane | U | | | 0.0929 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Di-isopropyl ether | U | | | 0.0924 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Ethylbenzene | U | | | 0.158 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Hexachloro-1,3-butadiene | U | | | 0.157 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Hexanone | U | | | 0.757 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Hexane | U | | | 0.305 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| Iodomethane | U | | | 0.377 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Isopropylbenzene | U | | | 0.126 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| p-Isopropyltoluene | U | | | 0.138 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 2-Butanone (MEK) | U | | | 1.28 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Methylene Chloride | U | | | 1.07 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | | 0.823 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Methyl tert-butyl ether | U | | | 0.102 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Naphthalene | U | | | 0.174 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| n-Propylbenzene | U | | | 0.162 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Styrene | U | | | 0.117 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | | 0.120 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

4/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 18:45 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 18:45 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 18:45 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 18:45* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/05/2017 18:45* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *97.2* | | | *80.0-120* | | *04/05/2017 18:45* | WG967289 |

Cp
1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc
9

4/25/17

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 118000 | | 2710 | 20000 | 1 | 04/01/2017 13:15 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 4730 | | 51.9 | 1000 | 1 | 04/01/2017 11:42 | WG966056 |
| Nitrate | 6870 | | 22.7 | 100 | 1 | 04/01/2017 11:42 | WG966056 |
| Sulfate | 25200 | | 77.4 | 5000 | 1 | 04/01/2017 11:42 | WG966056 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1350 | | 102 | 1000 | 1 | 04/05/2017 19:32 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 120 | | 15.0 | 100 | 1 | 04/05/2017 18:09 | WG966260 |
| Manganese | 1500 | | 0.250 | 5.00 | 1 | 04/05/2017 18:09 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 11000 | | 11.5 | 27.1 | 40 | 04/04/2017 17:19 | WG967102 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/04/2017 05:40 | WG966794 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/04/2017 05:40 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.16 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:05 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Benzene | 0.178 | J | 0.0896 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromoform | U | J0 | 0.186 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloroethene | 0.773 | | 0.188 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| cis-1,2-Dichloroethene | 125 | | 0.0933 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,2-Dichloroethene | 0.396 | J | 0.152 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Naphthalene | 0.189 | U BJ | 0.174 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Tetrachloroethene | 280 | | 0.995 | 2.50 | 5 | 04/06/2017 18:41 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Trichloroethene | 50.4 | | 0.153 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:05 | WG967289 |
| Vinyl chloride | 0.310 | J J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:05 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:05 | WG967289 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/06/2017 18:41* | WG967289 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/05/2017 19:05* | WG967289 |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* | | *04/05/2017 19:05* | WG967289 |
| *(S) Dibromofluoromethane* | *106* | | | *76.0-123* | | *04/06/2017 18:41* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.4* | | | *80.0-120* | | *04/06/2017 18:41* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *96.0* | | | *80.0-120* | | *04/05/2017 19:05* | WG967289 |



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## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 211000 | | 2710 | 20000 | 1 | 04/01/2017 13:22 | WG966192 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 23800 | | 51.9 | 1000 | 1 | 04/01/2017 09:11 | WG966372 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/01/2017 09:11 | WG966372 |
| Sulfate | 29000 | | 77.4 | 5000 | 1 | 04/01/2017 09:11 | WG966372 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 1840 | | 102 | 1000 | 1 | 04/05/2017 20:00 | WG967101 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 18200 | | 15.0 | 100 | 1 | 04/05/2017 18:13 | WG966260 |
| Manganese | 542 | | 0.250 | 5.00 | 1 | 04/05/2017 18:13 | WG966260 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 367 | | 0.287 | 0.678 | 1 | 04/04/2017 06:14 | WG966794 |
| Ethane | 0.757 J | J | 0.296 | 1.29 | 1 | 04/04/2017 06:14 | WG966794 |
| Ethene | 1.27 J | J | 0.422 | 1.27 | 1 | 04/04/2017 06:14 | WG966794 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.56 U | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:24 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromoform | U U5 | J0 | 0.186 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |

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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| cis-1,2-Dichloroethene | 0.491 | J J | 0.0933 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Tetrachloroethene | 0.330 | J J | 0.199 | 0.500 | 1 | 04/06/2017 18:54 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Trichloroethene | 0.203 | J J | 0.153 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:24 | WG967289 |
| Vinyl chloride | 1.83 | J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:24 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:24 | WG967289 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* | | *04/06/2017 18:54* | WG967289 |
| *(S) Toluene-d8* | *111* | | | *80.0-120* | | *04/05/2017 19:24* | WG967289 |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* | | *04/06/2017 18:54* | WG967289 |
| *(S) Dibromofluoromethane* | *108* | | | *76.0-123* | | *04/05/2017 19:24* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *95.5* | | | *80.0-120* | | *04/06/2017 18:54* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *97.4* | | | *80.0-120* | | *04/05/2017 19:24* | WG967289 |



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## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.27 | B J J3 | 1.05 | 25.0 | 1 | 04/05/2017 19:45 | WG967289 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromoform | U | J3 | 0.186 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Chloroethyl vinyl ether | U | | 0.877 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |



4/25/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/05/2017 19:45 | WG967289 |
| Vinyl chloride | U | J4 | 0.118 | 0.500 | 1 | 04/05/2017 19:45 | WG967289 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/05/2017 19:45 | WG967289 |
| *(S) Toluene-d8* | *110* | | | *80.0-120* | | *04/05/2017 19:45* | WG967289 |
| *(S) Dibromofluoromethane* | *103* | | | *76.0-123* | | *04/05/2017 19:45* | WG967289 |
| *(S) 4-Bromofluorobenzene* | *96.3* | | | *80.0-120* | | *04/05/2017 19:45* | WG967289 |

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

4/25/17

# ANALYTICAL REPORT

April 12, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L900217 |
| Samples Received: | 04/04/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW123-040117 L900217-01 GW

Collected by: C. DeBoer
Collected date/time: 04/01/17 08:45
Received date/time: 04/04/17 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG969487 | 1 | 04/12/17 00:32 | 04/12/17 00:32 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 2.83 | B J J3 | 1.05 | 25.0 | 1 | 04/12/2017 00:32 | WG969487 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Di-isopropyl ether | 0.141 | J | 0.0924 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/12/2017 00:32 | WG969487 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/12/2017 00:32* | WG969487 |
| *(S) Dibromofluoromethane* | *91.6* | | | *76.0-123* | | *04/12/2017 00:32* | WG969487 |
| *(S) 4-Bromofluorobenzene* | *99.0* | | | *80.0-120* | | *04/12/2017 00:32* | WG969487 |

## Method Blank (MB)

(MB) R3210122-3 04/11/17 19:26

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | 2.62 | J | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 |

## Method Blank (MB)

(MB) R3210122-3 04/11/17 19:26

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *89.9* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *98.2* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210122-1 04/11/17 17:22 • (LCSD) R3210122-2 04/11/17 17:43

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 162 | 101 | 130 | 80.7 | 10.0-160 | | J3 | 46.5 | 23 |
| Acrylonitrile | 125 | 129 | 107 | 103 | 85.4 | 60.0-142 | | | 18.9 | 20 |
| Benzene | 25.0 | 20.2 | 20.3 | 81.0 | 81.1 | 69.0-123 | | | 0.140 | 20 |
| Bromobenzene | 25.0 | 23.9 | 24.4 | 95.7 | 97.5 | 79.0-120 | | | 1.83 | 20 |
| Bromodichloromethane | 25.0 | 22.5 | 22.4 | 90.0 | 89.7 | 76.0-120 | | | 0.330 | 20 |
| Bromochloromethane | 25.0 | 21.7 | 21.2 | 86.7 | 84.8 | 76.0-122 | | | 2.19 | 20 |
| Bromoform | 25.0 | 20.5 | 20.3 | 82.0 | 81.3 | 67.0-132 | | | 0.860 | 20 |
| Bromomethane | 25.0 | 21.4 | 20.3 | 85.4 | 81.2 | 18.0-160 | | | 4.99 | 20 |
| n-Butylbenzene | 25.0 | 23.7 | 24.7 | 94.7 | 98.8 | 72.0-126 | | | 4.20 | 20 |
| sec-Butylbenzene | 25.0 | 21.9 | 25.5 | 87.6 | 102 | 74.0-121 | | | 15.2 | 20 |
| tert-Butylbenzene | 25.0 | 19.7 | 22.0 | 79.0 | 87.9 | 75.0-122 | | | 10.7 | 20 |
| Carbon disulfide | 25.0 | 24.6 | 24.2 | 98.2 | 96.9 | 55.0-127 | | | 1.33 | 20 |
| Carbon tetrachloride | 25.0 | 19.8 | 19.9 | 79.4 | 79.4 | 63.0-122 | | | 0.0800 | 20 |
| Chlorobenzene | 25.0 | 22.8 | 22.4 | 91.1 | 89.5 | 79.0-121 | | | 1.76 | 20 |
| Chlorodibromomethane | 25.0 | 21.7 | 22.1 | 86.8 | 88.5 | 75.0-125 | | | 1.95 | 20 |
| Chloroethane | 25.0 | 24.3 | 23.8 | 97.0 | 95.2 | 47.0-152 | | | 1.85 | 20 |
| Chloroform | 25.0 | 21.5 | 21.5 | 85.9 | 86.0 | 72.0-121 | | | 0.0800 | 20 |
| Chloromethane | 25.0 | 23.5 | 23.1 | 93.8 | 92.4 | 48.0-139 | | | 1.57 | 20 |
| 2-Chlorotoluene | 25.0 | 24.0 | 24.9 | 96.2 | 99.5 | 74.0-122 | | | 3.39 | 20 |
| 4-Chlorotoluene | 25.0 | 23.5 | 24.9 | 94.0 | 99.7 | 79.0-120 | | | 5.94 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 20.6 | 16.9 | 82.6 | 67.6 | 64.0-127 | | | 19.9 | 20 |
| 1,2-Dibromoethane | 25.0 | 21.4 | 22.3 | 85.5 | 89.3 | 77.0-123 | | | 4.28 | 20 |
| Dibromomethane | 25.0 | 20.5 | 20.6 | 82.1 | 82.2 | 78.0-120 | | | 0.170 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 22.7 | 22.4 | 90.9 | 89.7 | 80.0-120 | | | 1.30 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 21.0 | 24.2 | 83.9 | 96.8 | 72.0-123 | | | 14.3 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 21.9 | 22.9 | 87.4 | 91.7 | 77.0-120 | | | 4.73 | 20 |
| Dichlorodifluoromethane | 25.0 | 24.0 | 23.8 | 95.9 | 95.0 | 49.0-155 | | | 0.920 | 20 |
| 1,1-Dichloroethane | 25.0 | 23.5 | 23.5 | 94.1 | 94.2 | 70.0-126 | | | 0.0900 | 20 |
| 1,2-Dichloroethane | 25.0 | 22.6 | 22.2 | 90.4 | 88.8 | 67.0-126 | | | 1.78 | 20 |
| 1,1-Dichloroethene | 25.0 | 23.4 | 23.4 | 93.5 | 93.5 | 64.0-129 | | | 0.000 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 21.7 | 21.5 | 86.7 | 85.9 | 73.0-120 | | | 0.930 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 23.0 | 22.4 | 91.9 | 89.5 | 71.0-121 | | | 2.71 | 20 |
| 1,2-Dichloropropane | 25.0 | 25.3 | 25.3 | 101 | 101 | 75.0-125 | | | 0.000 | 20 |
| 1,1-Dichloropropene | 25.0 | 25.2 | 25.1 | 101 | 100 | 71.0-129 | | | 0.750 | 20 |
| 1,3-Dichloropropane | 25.0 | 23.5 | 24.6 | 93.9 | 98.2 | 80.0-121 | | | 4.50 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 25.7 | 26.2 | 103 | 105 | 79.0-123 | | | 1.91 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 22.9 | 23.5 | 91.8 | 94.0 | 74.0-127 | | | 2.42 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 22.0 | 23.1 | 88.2 | 92.2 | 55.0-134 | | | 4.52 | 20 |
| 2,2-Dichloropropane | 25.0 | 22.3 | 22.6 | 89.1 | 90.4 | 60.0-125 | | | 1.49 | 20 |
| Di-isopropyl ether | 25.0 | 24.2 | 24.0 | 96.8 | 95.8 | 59.0-133 | | | 0.970 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210122-1 04/11/17 17:22 • (LCSD) R3210122-2 04/11/17 17:43

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 25.0 | 20.7 | 20.2 | 82.8 | 80.6 | 77.0-120 | | | 2.62 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 21.6 | 20.4 | 86.6 | 81.8 | 64.0-131 | | | 5.69 | 20 |
| 2-Hexanone | 125 | 118 | 119 | 94.5 | 95.3 | 58.0-147 | | | 0.760 | 20 |
| n-Hexane | 25.0 | 22.3 | 22.0 | 89.3 | 87.9 | 56.0-124 | | | 1.53 | 20 |
| Iodomethane | 125 | 102 | 103 | 81.9 | 82.6 | 57.0-140 | | | 0.880 | 20 |
| Isopropylbenzene | 25.0 | 21.1 | 22.5 | 84.4 | 90.0 | 75.0-120 | | | 6.36 | 20 |
| p-Isopropyltoluene | 25.0 | 21.8 | 25.2 | 87.0 | 101 | 74.0-126 | | | 14.7 | 20 |
| 2-Butanone (MEK) | 125 | 120 | 109 | 95.9 | 87.0 | 37.0-158 | | | 9.79 | 20 |
| Methylene Chloride | 25.0 | 21.9 | 21.5 | 87.5 | 86.2 | 66.0-121 | | | 1.54 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 126 | 121 | 101 | 97.1 | 59.0-143 | | | 4.11 | 20 |
| Methyl tert-butyl ether | 25.0 | 22.4 | 21.8 | 89.6 | 87.0 | 64.0-123 | | | 2.94 | 20 |
| Naphthalene | 25.0 | 18.7 | 15.6 | 74.9 | 62.5 | 62.0-128 | | | 18.0 | 20 |
| n-Propylbenzene | 25.0 | 22.9 | 23.4 | 91.7 | 93.6 | 79.0-120 | | | 2.01 | 20 |
| Styrene | 25.0 | 22.1 | 20.2 | 88.3 | 80.9 | 78.0-124 | | | 8.81 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.1 | 21.7 | 88.5 | 87.0 | 75.0-122 | | | 1.78 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 23.3 | 23.0 | 93.4 | 91.9 | 71.0-122 | | | 1.61 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 21.0 | 21.0 | 83.8 | 84.0 | 61.0-136 | | | 0.180 | 20 |
| Tetrachloroethene | 25.0 | 22.0 | 23.0 | 88.1 | 92.1 | 70.0-127 | | | 4.39 | 20 |
| Toluene | 25.0 | 20.6 | 20.8 | 82.5 | 83.4 | 77.0-120 | | | 1.02 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 21.7 | 18.4 | 86.6 | 73.5 | 61.0-133 | | | 16.3 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 22.3 | 19.6 | 89.0 | 78.3 | 69.0-129 | | | 12.8 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 23.0 | 23.3 | 91.8 | 93.2 | 68.0-122 | | | 1.42 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 21.2 | 22.1 | 84.8 | 88.6 | 78.0-120 | | | 4.33 | 20 |
| Trichloroethene | 25.0 | 23.0 | 23.4 | 92.1 | 93.7 | 78.0-120 | | | 1.72 | 20 |
| Trichlorofluoromethane | 25.0 | 20.3 | 20.9 | 81.2 | 83.6 | 56.0-137 | | | 2.96 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 24.4 | 24.6 | 97.8 | 98.4 | 72.0-124 | | | 0.630 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 21.7 | 24.6 | 86.6 | 98.3 | 75.0-120 | | | 12.6 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 20.1 | 20.8 | 80.4 | 83.1 | 75.0-120 | | | 3.35 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 22.8 | 23.5 | 91.3 | 94.0 | 75.0-120 | | | 2.96 | 20 |
| Vinyl acetate | 125 | 114 | 107 | 91.3 | 85.7 | 46.0-160 | | | 6.28 | 20 |
| Vinyl chloride | 25.0 | 26.7 | 26.5 | 107 | 106 | 64.0-133 | | | 0.850 | 20 |
| Xylenes, Total | 75.0 | 63.3 | 60.1 | 84.4 | 80.1 | 77.0-120 | | | 5.19 | 20 |
| *(S) Toluene-d8* | | | | *102* | *101* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *92.8* | *91.5* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *107* | *103* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

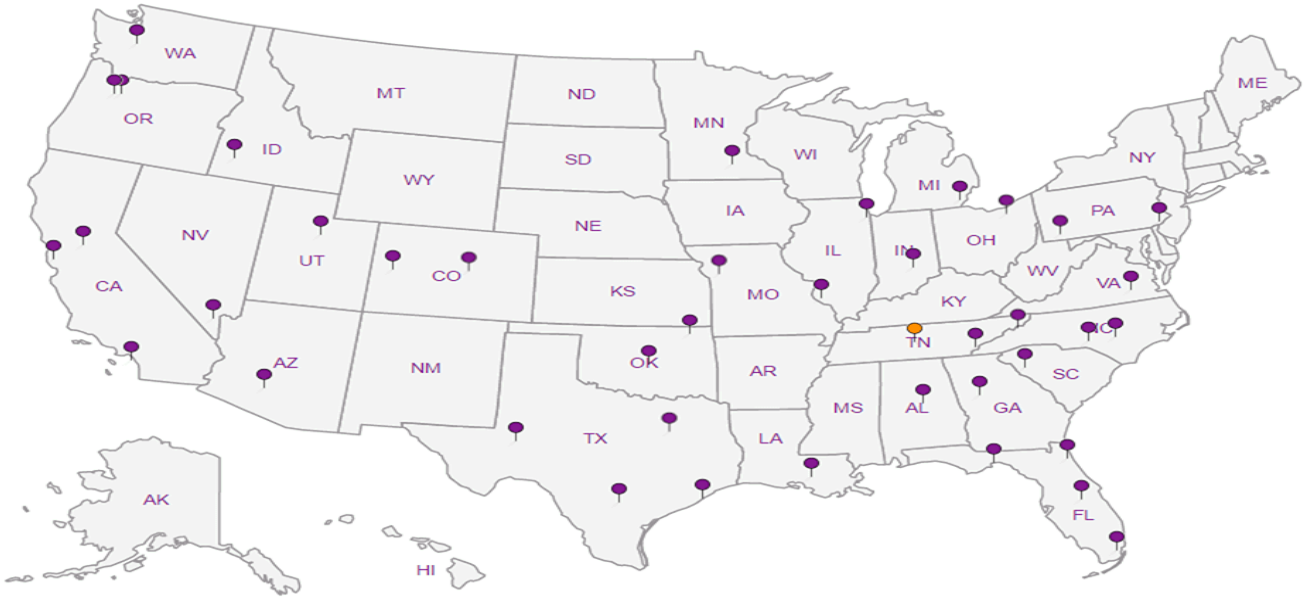
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): C. DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer

Immediately Packed on Ice N ___ Y X

*Rush?* (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW123-040117 | Grab | GW | 75 | 4.1.17 | 845 | 4 | | | | | X | | | 01 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
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| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABS SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 900217
G209

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier _____

Tracking # 7176 9011 7166

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes (No) HCL / MeoH TBR |
|---|---|---|---|---|
| Chris DeBoer | 4/3/17 | 1350 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 21°C Bottles Received: 4 |
| | | | | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 4-4-17 Time: 0900 |
| | | | | Hold: Condition: NCF / OK |

# MEMORANDUM

**TO:** Project File **DATE:** April 26, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** April 1, 2017- Groundwater Sampling

**LAB:** ESC Lab ID L900217

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 1, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L900217. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L900217 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees

Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

## Holding Times

*USEPA Method 8260C:*
The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- A low level acetone detection was reported in the method blank (WG969487). The detection was less than the reporting detection limit (RDL) but greater than the method detection limit (MDL). **The acetone result in sample MW123-040117 is qualified as not detected (U) due to associated method blank contamination.**

## Trip Blank Results

*USEPA Method 8260C (VOCs)*:
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
An LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG969487) RPD for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are still within laboratory control limits.

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
MS/MSD analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017)

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | | |
| Acetone | 2.83 | B J J3 | 1.05 | 25.0 | 1 | 04/12/2017 00:32 | WG969487 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Carbon disulfide | U | | 0.101 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Di-isopropyl ether | 0.141 | J J | 0.0924 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |

qc 4/26/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Vinyl acetate | U | | 0.645 | 2.50 | 1 | 04/12/2017 00:32 | WG969487 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/12/2017 00:32 | WG969487 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/12/2017 00:32 | WG969487 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/12/2017 00:32* | WG969487 |
| *(S) Dibromofluoromethane* | *91.6* | | | *76.0-123* | | *04/12/2017 00:32* | WG969487 |
| *(S) 4-Bromofluorobenzene* | *99.0* | | | *80.0-120* | | *04/12/2017 00:32* | WG969487 |



4/26/17

# ANALYTICAL REPORT

April 20, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L901706 |
| Samples Received: | 04/11/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW129-041017 L901706-01 GW

Collected by: C. DeBoer
Collected date/time: 04/10/17 14:05
Received date/time: 04/11/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG969253 | 1 | 04/11/17 11:36 | 04/11/17 11:36 | AMC |
| Wet Chemistry by Method 9056A | WG969255 | 1 | 04/11/17 11:12 | 04/11/17 11:12 | KCF |
| Wet Chemistry by Method 9056A | WG969853 | 5 | 04/13/17 11:59 | 04/13/17 11:59 | SAM |
| Wet Chemistry by Method 9060A | WG969458 | 1 | 04/13/17 04:12 | 04/13/17 04:12 | SJM |
| Metals (ICPMS) by Method 6020 | WG969609 | 1 | 04/12/17 17:06 | 04/13/17 11:44 | LAT |
| Volatile Organic Compounds (GC) by Method RSK175 | WG969641 | 1 | 04/13/17 01:04 | 04/13/17 01:04 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG971582 | 5 | 04/19/17 05:42 | 04/19/17 05:42 | CAH |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG971582 | 50 | 04/20/17 00:36 | 04/20/17 00:36 | JHH |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 308000 | | 2710 | 20000 | 1 | 04/11/2017 11:36 | WG969253 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 44200 | | 51.9 | 1000 | 1 | 04/11/2017 11:12 | WG969255 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/11/2017 11:12 | WG969255 |
| Sulfate | 124000 | | 387 | 25000 | 5 | 04/13/2017 11:59 | WG969853 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2740 | | 102 | 1000 | 1 | 04/13/2017 04:12 | WG969458 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 365 | | 15.0 | 100 | 1 | 04/13/2017 11:44 | WG969609 |
| Manganese | 402 | | 0.250 | 5.00 | 1 | 04/13/2017 11:44 | WG969609 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 279 | | 0.287 | 0.678 | 1 | 04/13/2017 01:04 | WG969641 |
| Ethane | 26.8 | | 0.296 | 1.29 | 1 | 04/13/2017 01:04 | WG969641 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/13/2017 01:04 | WG969641 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 5.25 | 125 | 5 | 04/19/2017 05:42 | WG971582 |
| Acrylonitrile | U | | 4.36 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Benzene | U | | 0.448 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromobenzene | U | | 0.665 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromodichloromethane | U | | 0.400 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromochloromethane | U | | 0.725 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromoform | U | | 0.930 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromomethane | U | | 0.785 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Butylbenzene | U | | 0.715 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| sec-Butylbenzene | U | | 0.670 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| tert-Butylbenzene | U | | 0.915 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Carbon disulfide | U | | 0.505 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Carbon tetrachloride | U | | 0.795 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chlorobenzene | U | | 0.700 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chlorodibromomethane | U | | 0.640 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloroethane | U | | 0.705 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloroform | U | | 0.430 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloromethane | U | | 0.765 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Chlorotoluene | U | | 0.555 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 4-Chlorotoluene | U | | 0.486 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dibromo-3-Chloropropane | U | | 1.62 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dibromoethane | U | | 0.965 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Dibromomethane | U | | 0.585 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.505 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3-Dichlorobenzene | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,4-Dichlorobenzene | U | | 0.605 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Dichlorodifluoromethane | U | | 0.635 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloroethane | U | | 0.570 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dichloroethane | U | | 0.540 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloroethene | 4.86 | | 0.940 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| cis-1,2-Dichloroethene | 1420 | | 4.66 | 25.0 | 50 | 04/20/2017 00:36 | WG971582 |
| trans-1,2-Dichloroethene | 5.05 | | 0.760 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dichloropropane | U | | 0.950 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloropropene | U | | 0.640 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3-Dichloropropane | U | | 0.735 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| cis-1,3-Dichloropropene | U | | 0.488 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| trans-1,3-Dichloropropene | U | | 1.11 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| trans-1,4-Dichloro-2-butene | U | | 1.28 | 25.0 | 5 | 04/19/2017 05:42 | WG971582 |
| 2,2-Dichloropropane | U | | 0.464 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Di-isopropyl ether | U | | 0.462 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Ethylbenzene | U | | 0.790 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Hexachloro-1,3-butadiene | U | | 0.785 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Hexanone | U | | 3.78 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Hexane | U | | 1.52 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| Iodomethane | U | J4 | 18.8 | 125 | 50 | 04/20/2017 00:36 | WG971582 |
| Isopropylbenzene | U | | 0.630 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| p-Isopropyltoluene | U | | 0.690 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Butanone (MEK) | U | | 6.40 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Methylene Chloride | U | | 5.35 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| 4-Methyl-2-pentanone (MIBK) | U | | 4.12 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Methyl tert-butyl ether | U | | 0.510 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Naphthalene | 1.42 | J | 0.870 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Propylbenzene | U | | 0.810 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Styrene | U | | 0.585 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,1,2-Tetrachloroethane | U | | 0.600 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2,2-Tetrachloroethane | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.820 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Tetrachloroethene | 194 | | 0.995 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Toluene | U | | 2.06 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trichlorobenzene | U | | 0.820 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,4-Trichlorobenzene | U | | 1.78 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,1-Trichloroethane | U | | 0.470 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2-Trichloroethane | U | | 0.930 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Trichloroethene | 492 | | 0.765 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Trichlorofluoromethane | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trichloropropane | U | | 1.24 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,4-Trimethylbenzene | U | | 0.615 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trimethylbenzene | U | | 0.370 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3,5-Trimethylbenzene | U | | 0.620 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Vinyl acetate | U | | 3.22 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Vinyl chloride | 0.885 | J | 0.590 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Xylenes, Total | U | | 1.58 | 7.50 | 5 | 04/19/2017 05:42 | WG971582 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/19/2017 05:42* | WG971582 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/20/2017 00:36* | WG971582 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/19/2017 05:42* | WG971582 |
| *(S) Dibromofluoromethane* | *110* | | | *76.0-123* | | *04/20/2017 00:36* | WG971582 |
| *(S) 4-Bromofluorobenzene* | *95.7* | | | *80.0-120* | | *04/19/2017 05:42* | WG971582 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *04/20/2017 00:36* | WG971582 |

## Method Blank (MB)

(MB) R3209969-1 04/11/17 10:06

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity | 3220 | J | 2710 | 20000 |

## L901406-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901406-01 04/11/17 10:32 • (DUP) R3209969-2 04/11/17 10:38

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 46400 | 47600 | 1 | 3.00 | | 20 |

## L901543-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901543-01 04/11/17 12:01 • (DUP) R3209969-4 04/11/17 12:07

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 75300 | 74000 | 1 | 2.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3209969-3 04/11/17 11:11 • (LCSD) R3209969-5 04/11/17 12:14

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Alkalinity | 100000 | 101000 | 97300 | 101 | 97.0 | 85.0-115 | | | 4.00 | 20 |

## Method Blank (MB)

(MB) R3210076-1 04/11/17 06:55

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |

## L901638-09 Original Sample (OS) • Duplicate (DUP)

(OS) L901638-09 04/11/17 13:04 • (DUP) R3210076-4 04/11/17 13:17

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 16300 | 16500 | 1 | 1 | | 15 |
| Nitrate | 1340 | 1330 | 1 | 1 | | 15 |

## L901709-07 Original Sample (OS) • Duplicate (DUP)

(OS) L901709-07 04/11/17 16:10 • (DUP) R3210076-6 04/11/17 16:23

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 47100 | 47200 | 1 | 0 | | 15 |
| Nitrate | 2210 | 2200 | 1 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210076-2 04/11/17 07:07 • (LCSD) R3210076-3 04/11/17 07:19

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Chloride | 40000 | 39500 | 39500 | 99 | 99 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8180 | 8190 | 102 | 102 | 80-120 | | | 0 | 15 |

## L901638-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L901638-11 04/11/17 13:29 • (MS) R3210076-5 04/11/17 13:41

| Analyte | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | | % | |
| Chloride | 50000 | 15900 | 66300 | 101 | 1 | 80-120 | |
| Nitrate | 5000 | 133 | 5050 | 98 | 1 | 80-120 | |

## L901709-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901709-08 04/11/17 17:00 • (MS) R3210076-7 04/11/17 17:12 • (MSD) R3210076-8 04/11/17 17:25

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50000 | 27000 | 76100 | 76400 | 98 | 99 | 1 | 80-120 | | | 0 | 15 |
| Nitrate | 5000 | ND | 4900 | 4830 | 98 | 97 | 1 | 80-120 | | | 1 | 15 |

## L901705-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L901705-01 04/11/17 18:27 • (MS) R3210076-9 04/11/17 18:39

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Nitrate | 5000 | ND | 22700 | 90 | 5 | 80-120 | |

## Method Blank (MB)

(MB) R3210785-2 04/13/17 09:34

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Sulfate | U | | 77.4 | 5000 |

## L901882-05 Original Sample (OS) • Duplicate (DUP)

(OS) L901882-05 04/13/17 13:57 • (DUP) R3210785-7 04/13/17 14:07

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Sulfate | ND | 3640 | 1 | 23 | J P1 | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210785-3 04/13/17 09:44 • (LCSD) R3210785-4 04/13/17 09:54

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Sulfate | 40000 | 40800 | 40900 | 102 | 102 | 80-120 | | | 0 | 15 |

## L901882-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L901882-01 04/13/17 13:06 • (MS) R3210785-6 04/13/17 13:16

| Analyte | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | | % | |
| Sulfate | 50000 | ND | 52200 | 102 | 1 | 80-120 | |

## L902037-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902037-01 04/13/17 15:49 • (MS) R3210785-8 04/13/17 15:59 • (MSD) R3210785-9 04/13/17 16:29

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Sulfate | 50000 | ND | 55700 | 55600 | 104 | 104 | 1 | 80-120 | | | 0 | 15 |

## Method Blank (MB)

(MB) R3210413-1 04/12/17 16:27

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L901588-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901588-01 04/12/17 20:37 • (DUP) R3210413-4 04/12/17 22:06

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 5370 | 5180 | 1 | 4 | | 20 |

## L901588-13 Original Sample (OS) • Duplicate (DUP)

(OS) L901588-13 04/13/17 03:02 • (DUP) R3210413-7 04/13/17 03:21

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 4040 | 3960 | 1 | 2 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210413-2 04/12/17 18:30 • (LCSD) R3210413-3 04/12/17 20:58

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 74700 | 74800 | 100 | 100 | 85-115 | | | 0 | 20 |

## L901588-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901588-07 04/12/17 23:44 • (MS) R3210413-5 04/13/17 00:07 • (MSD) R3210413-6 04/13/17 00:30

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 3980 | 55700 | 56900 | 104 | 106 | 1 | 80-120 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3210537-1 04/13/17 10:55

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | 0.349 | J | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210537-2 04/13/17 10:58 • (LCSD) R3210537-3 04/13/17 11:02

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 4880 | 4920 | 98 | 98 | 80-120 | | | 1 | 20 |
| Manganese | 50.0 | 48.1 | 50.0 | 96 | 100 | 80-120 | | | 4 | 20 |

## L901739-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901739-09 04/13/17 11:05 • (MS) R3210537-5 04/13/17 11:12 • (MSD) R3210537-6 04/13/17 11:16

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | | 4930 | 4990 | 99 | 100 | 1 | 75-125 | | | 1 | 20 |
| Manganese | 50.0 | ND | 48.2 | 49.3 | 93 | 96 | 1 | 75-125 | | | 2 | 20 |

## Method Blank (MB)

(MB) R3210496-1 04/12/17 23:07

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L901416-03 Original Sample (OS) • Duplicate (DUP)

(OS) L901416-03 04/12/17 23:24 • (DUP) R3210496-2 04/13/17 02:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 2460 | 2500 | 10 | 1.67 | | 20 |
| Ethane | U | 0.000 | 10 | 0.000 | | 20 |
| Ethene | U | 0.000 | 10 | 0.000 | | 20 |

## L901992-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901992-01 04/13/17 02:44 • (DUP) R3210496-3 04/13/17 05:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3210496-4 04/13/17 05:48 • (LCSD) R3210496-5 04/13/17 06:04

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 63.5 | 64.0 | 93.6 | 94.5 | 70.0-130 | | | 0.870 | 20 |
| Ethane | 129 | 111 | 113 | 86.0 | 87.2 | 70.0-130 | | | 1.41 | 20 |
| Ethene | 127 | 109 | 110 | 86.1 | 86.8 | 70.0-130 | | | 0.840 | 20 |

## Method Blank (MB)

(MB) R3211879-3 04/19/17 03:01

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| Chloroform | U | | 0.0860 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| cis-1,2-Dichloroethene | 0.314 | J | 0.0933 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |

## Method Blank (MB)

(MB) R3211879-3 04/19/17 03:01

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Ethylbenzene | U | | 0.158 | 0.500 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Toluene | U | | 0.412 | 1.00 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *104* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *104* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *96.9* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211879-1 04/19/17 01:06 • (LCSD) R3211879-2 04/19/17 02:15

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 124 | 134 | 99.5 | 107 | 10.0-160 | | | 7.26 | 23 |
| Bromobenzene | 25.0 | 25.4 | 25.4 | 101 | 102 | 79.0-120 | | | 0.290 | 20 |
| Bromochloromethane | 25.0 | 25.6 | 25.8 | 102 | 103 | 76.0-122 | | | 0.740 | 20 |
| n-Butylbenzene | 25.0 | 23.4 | 23.3 | 93.6 | 93.1 | 72.0-126 | | | 0.550 | 20 |
| sec-Butylbenzene | 25.0 | 22.5 | 22.5 | 90.1 | 90.0 | 74.0-121 | | | 0.0300 | 20 |
| tert-Butylbenzene | 25.0 | 22.5 | 22.6 | 89.9 | 90.2 | 75.0-122 | | | 0.380 | 20 |
| Carbon disulfide | 25.0 | 22.8 | 22.9 | 91.0 | 91.7 | 55.0-127 | | | 0.690 | 20 |
| 2-Chlorotoluene | 25.0 | 24.8 | 24.7 | 99.2 | 99.0 | 74.0-122 | | | 0.200 | 20 |
| 4-Chlorotoluene | 25.0 | 24.6 | 24.5 | 98.2 | 98.0 | 79.0-120 | | | 0.160 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.7 | 23.1 | 90.6 | 92.5 | 64.0-127 | | | 2.02 | 20 |
| 1,2-Dibromoethane | 25.0 | 25.2 | 25.1 | 101 | 100 | 77.0-123 | | | 0.500 | 20 |
| Dibromomethane | 25.0 | 24.0 | 24.3 | 96.2 | 97.3 | 78.0-120 | | | 1.17 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 26.6 | 26.4 | 106 | 106 | 80.0-120 | | | 0.860 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 25.3 | 25.4 | 101 | 102 | 72.0-123 | | | 0.340 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 27.2 | 26.8 | 109 | 107 | 77.0-120 | | | 1.22 | 20 |
| Dichlorodifluoromethane | 25.0 | 25.9 | 25.8 | 104 | 103 | 49.0-155 | | | 0.390 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 26.7 | 27.3 | 107 | 109 | 73.0-120 | | | 2.32 | 20 |
| 1,1-Dichloropropene | 25.0 | 25.7 | 25.7 | 103 | 103 | 71.0-129 | | | 0.290 | 20 |
| 1,3-Dichloropropane | 25.0 | 27.1 | 27.1 | 108 | 109 | 80.0-121 | | | 0.130 | 20 |
| Acrylonitrile | 125 | 139 | 140 | 111 | 112 | 60.0-142 | | | 0.460 | 20 |
| Benzene | 25.0 | 28.0 | 28.3 | 112 | 113 | 69.0-123 | | | 1.11 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 16.7 | 16.5 | 66.9 | 66.0 | 55.0-134 | | | 1.28 | 20 |
| 2,2-Dichloropropane | 25.0 | 18.8 | 19.1 | 75.4 | 76.5 | 60.0-125 | | | 1.42 | 20 |
| Bromodichloromethane | 25.0 | 24.3 | 24.1 | 97.2 | 96.5 | 76.0-120 | | | 0.720 | 20 |
| Di-isopropyl ether | 25.0 | 25.9 | 26.2 | 104 | 105 | 59.0-133 | | | 1.26 | 20 |
| Bromoform | 25.0 | 24.2 | 24.2 | 96.7 | 96.7 | 67.0-132 | | | 0.0500 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 21.8 | 22.2 | 87.1 | 88.9 | 64.0-131 | | | 2.10 | 20 |
| 2-Hexanone | 125 | 142 | 146 | 114 | 117 | 58.0-147 | | | 2.69 | 20 |
| Bromomethane | 25.0 | 28.7 | 26.9 | 115 | 107 | 18.0-160 | | | 6.52 | 20 |
| n-Hexane | 25.0 | 25.0 | 25.3 | 100 | 101 | 56.0-124 | | | 0.940 | 20 |
| Iodomethane | 125 | 48.8 | 58.6 | 39.1 | 46.9 | 57.0-140 | J4 | J4 | 18.1 | 20 |
| Isopropylbenzene | 25.0 | 24.1 | 23.9 | 96.5 | 95.6 | 75.0-120 | | | 0.890 | 20 |
| p-Isopropyltoluene | 25.0 | 22.6 | 22.5 | 90.3 | 90.1 | 74.0-126 | | | 0.200 | 20 |
| 2-Butanone (MEK) | 125 | 143 | 146 | 114 | 116 | 37.0-158 | | | 2.12 | 20 |
| Carbon tetrachloride | 25.0 | 21.6 | 21.9 | 86.3 | 87.7 | 63.0-122 | | | 1.59 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 142 | 142 | 113 | 113 | 59.0-143 | | | 0.200 | 20 |
| Chlorobenzene | 25.0 | 26.0 | 25.7 | 104 | 103 | 79.0-121 | | | 1.12 | 20 |
| Chlorodibromomethane | 25.0 | 23.7 | 23.7 | 94.7 | 94.8 | 75.0-125 | | | 0.110 | 20 |
| Methyl tert-butyl ether | 25.0 | 24.8 | 25.0 | 99.4 | 100 | 64.0-123 | | | 0.610 | 20 |
| Chloroethane | 25.0 | 22.4 | 22.8 | 89.5 | 91.2 | 47.0-152 | | | 1.92 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211879-1 04/19/17 01:06 • (LCSD) R3211879-2 04/19/17 02:15

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | 25.0 | 24.9 | 24.9 | 99.7 | 99.7 | 79.0-120 | | | 0.0100 | 20 |
| Chloroform | 25.0 | 25.4 | 25.4 | 101 | 102 | 72.0-121 | | | 0.180 | 20 |
| Styrene | 25.0 | 25.5 | 25.3 | 102 | 101 | 78.0-124 | | | 0.880 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 24.0 | 24.3 | 96.1 | 97.3 | 75.0-122 | | | 1.27 | 20 |
| Chloromethane | 25.0 | 22.1 | 23.3 | 88.4 | 93.2 | 48.0-139 | | | 5.32 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 24.8 | 25.1 | 99.1 | 100 | 61.0-136 | | | 1.32 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 24.3 | 24.5 | 97.3 | 98.2 | 61.0-133 | | | 0.870 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 24.8 | 24.3 | 99.0 | 97.0 | 69.0-129 | | | 2.04 | 20 |
| Trichlorofluoromethane | 25.0 | 24.7 | 23.7 | 98.7 | 95.0 | 56.0-137 | | | 3.86 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 23.2 | 23.3 | 93.0 | 93.1 | 72.0-124 | | | 0.160 | 20 |
| 1,1-Dichloroethane | 25.0 | 26.0 | 26.7 | 104 | 107 | 70.0-126 | | | 2.65 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 23.2 | 23.4 | 92.7 | 93.7 | 75.0-120 | | | 1.08 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 24.6 | 24.5 | 98.3 | 98.0 | 75.0-120 | | | 0.310 | 20 |
| 1,2-Dichloroethane | 25.0 | 21.4 | 22.1 | 85.8 | 88.5 | 67.0-126 | | | 3.17 | 20 |
| 1,1-Dichloroethene | 25.0 | 24.0 | 24.6 | 95.9 | 98.5 | 64.0-129 | | | 2.68 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 23.2 | 23.2 | 92.9 | 92.8 | 75.0-120 | | | 0.140 | 20 |
| Vinyl acetate | 125 | 106 | 94.1 | 84.6 | 75.3 | 46.0-160 | | | 11.7 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 26.1 | 26.1 | 105 | 105 | 71.0-121 | | | 0.000 | 20 |
| 1,2-Dichloropropane | 25.0 | 27.5 | 27.0 | 110 | 108 | 75.0-125 | | | 1.76 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.2 | 23.6 | 96.8 | 94.2 | 79.0-123 | | | 2.70 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 23.0 | 22.9 | 92.0 | 91.7 | 74.0-127 | | | 0.340 | 20 |
| Ethylbenzene | 25.0 | 25.6 | 25.8 | 102 | 103 | 77.0-120 | | | 0.790 | 20 |
| Methylene Chloride | 25.0 | 25.4 | 25.8 | 102 | 103 | 66.0-121 | | | 1.27 | 20 |
| Naphthalene | 25.0 | 24.2 | 24.7 | 96.8 | 98.6 | 62.0-128 | | | 1.84 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 25.3 | 24.3 | 101 | 97.0 | 71.0-122 | | | 4.16 | 20 |
| Tetrachloroethene | 25.0 | 25.3 | 25.0 | 101 | 100 | 70.0-127 | | | 1.32 | 20 |
| Toluene | 25.0 | 26.0 | 26.0 | 104 | 104 | 77.0-120 | | | 0.340 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 22.9 | 22.9 | 91.4 | 91.5 | 68.0-122 | | | 0.0400 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 26.8 | 26.9 | 107 | 108 | 78.0-120 | | | 0.600 | 20 |
| Trichloroethene | 25.0 | 26.2 | 26.8 | 105 | 107 | 78.0-120 | | | 2.26 | 20 |
| Vinyl chloride | 25.0 | 28.6 | 28.8 | 114 | 115 | 64.0-133 | | | 0.650 | 20 |
| Xylenes, Total | 75.0 | 76.4 | 76.7 | 102 | 102 | 77.0-120 | | | 0.390 | 20 |
| *(S) Toluene-d8* | | | | *104* | *103* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *102* | *104* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *94.8* | *95.8* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

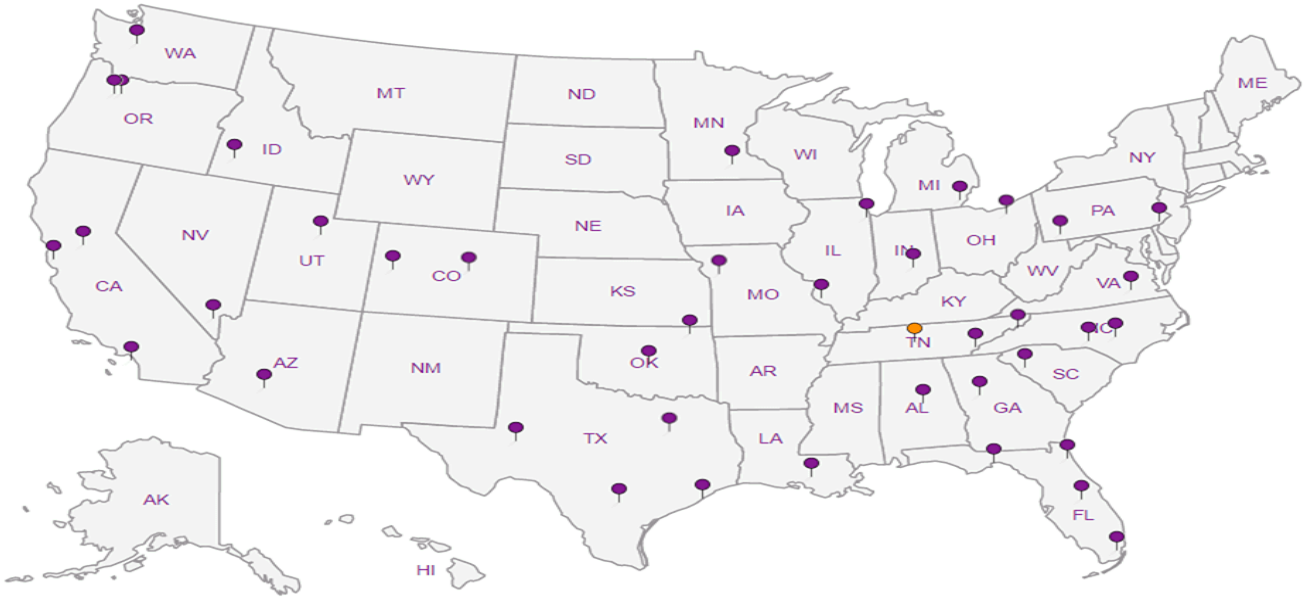
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): C. DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | Pres Chk | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW29-041017 | Grab | GW | 86.5 | 4/10/17 | 1405 | 9 | | X | | X | X | X | X | | 01 |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | |

Chris DeBoer 4/10/17

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 901706

K019

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *Nitrate has a 48 hour hold time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7176 9011 7177

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| If Applicable | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris DeBoer | 4/10/17 | 1510 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 5.1°C Bottles Received: 9

Date: 4-11-17 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

# MEMORANDUM

**TO:** Project File **DATE:** April 25, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** April 10, 2017- Groundwater Sampling

**LAB:** ESC Lab ID L901706

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 10, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following analytical parameters:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L901706. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L901706 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

All samples were collected and analyzed as requested.

### Sample Collection and Preservation

Sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 5.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B and EPA Methods 9056A and 9060A):*
The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- A low level cis-1,2-dichloroethene detection was reported in the method blank (Batch WG971582). The detection was less than the reporting detection limit (RDL) but greater than the method detection limit (MDL). The cis-1,2-dichloroethene result in the associated sample, sample MW129-041017, is significantly greater than the low level detection in the blank. No action was taken.

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL with the following discussion:

- A low level manganese result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for manganese is significantly greater than the manganese detection in the method blank.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for alkalinity is significantly greater than low level alkalinity detection in the method blank.

## Trip Blank Results

*USEPA Method 8260C (VOCs)*:
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analysis was performed on a non-client sample. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSD was analyzed by USEPA Method 8260C. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD spiking compound (Batch WG971582) iodomethane (also referred to as methyl iodide) percent recovery is slightly below laboratory acceptance criteria and

qualified by the laboratory (J4). **The iodomethane result for the associated sample MW129-041017 is qualified as estimated (UJ) due to low LCS/LCSD recoveries.**

*Method RSK-175:*
LCS/LCSD was analyzed by the RSK-175 method along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSD was analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes were within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*
Matrix spike analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*
Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 308000 | | 2710 | 20000 | 1 | 04/11/2017 11:36 | WG969253 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 44200 | | 51.9 | 1000 | 1 | 04/11/2017 11:12 | WG969255 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/11/2017 11:12 | WG969255 |
| Sulfate | 124000 | | 387 | 25000 | 5 | 04/13/2017 11:59 | WG969853 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 2740 | | 102 | 1000 | 1 | 04/13/2017 04:12 | WG969458 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 365 | | 15.0 | 100 | 1 | 04/13/2017 11:44 | WG969609 |
| Manganese | 402 | | 0.250 | 5.00 | 1 | 04/13/2017 11:44 | WG969609 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 279 | | 0.287 | 0.678 | 1 | 04/13/2017 01:04 | WG969641 |
| Ethane | 26.8 | | 0.296 | 1.29 | 1 | 04/13/2017 01:04 | WG969641 |
| Ethene | U | | 0.422 | 1.27 | 1 | 04/13/2017 01:04 | WG969641 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | U | | 5.25 | 125 | 5 | 04/19/2017 05:42 | WG971582 |
| Acrylonitrile | U | | 4.36 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Benzene | U | | 0.448 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromobenzene | U | | 0.665 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromodichloromethane | U | | 0.400 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromochloromethane | U | | 0.725 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromoform | U | | 0.930 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Bromomethane | U | | 0.785 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Butylbenzene | U | | 0.715 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| sec-Butylbenzene | U | | 0.670 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| tert-Butylbenzene | U | | 0.915 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Carbon disulfide | U | | 0.505 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Carbon tetrachloride | U | | 0.795 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chlorobenzene | U | | 0.700 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chlorodibromomethane | U | | 0.640 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloroethane | U | | 0.705 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloroform | U | | 0.430 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Chloromethane | U | | 0.765 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Chlorotoluene | U | | 0.555 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 4-Chlorotoluene | U | | 0.486 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dibromo-3-Chloropropane | U | | 1.62 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dibromoethane | U | | 0.965 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Dibromomethane | U | | 0.585 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.505 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3-Dichlorobenzene | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,4-Dichlorobenzene | U | | 0.605 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Dichlorodifluoromethane | U | | 0.635 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloroethane | U | | 0.570 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dichloroethane | U | | 0.540 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloroethene | 4.86 | | 0.940 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| cis-1,2-Dichloroethene | 1420 | | 4.66 | 25.0 | 50 | 04/20/2017 00:36 | WG971582 |
| trans-1,2-Dichloroethene | 5.05 | | 0.760 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2-Dichloropropane | U | | 0.950 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1-Dichloropropene | U | | 0.640 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3-Dichloropropane | U | | 0.735 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| cis-1,3-Dichloropropene | U | | 0.488 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| trans-1,3-Dichloropropene | U | | 1.11 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| trans-1,4-Dichloro-2-butene | U | | 1.28 | 25.0 | 5 | 04/19/2017 05:42 | WG971582 |
| 2,2-Dichloropropane | U | | 0.464 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Di-isopropyl ether | U | | 0.462 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Ethylbenzene | U | | 0.790 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Hexachloro-1,3-butadiene | U | | 0.785 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Hexanone | U | | 3.78 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Hexane | U | | 1.52 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| Iodomethane | U | UJ J4 | 18.8 | 125 | 50 | 04/20/2017 00:36 | WG971582 |
| Isopropylbenzene | U | | 0.630 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| p-Isopropyltoluene | U | | 0.690 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 2-Butanone (MEK) | U | | 6.40 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Methylene Chloride | U | | 5.35 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| 4-Methyl-2-pentanone (MIBK) | U | | 4.12 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Methyl tert-butyl ether | U | | 0.510 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Naphthalene | 1.42 | J J | 0.870 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| n-Propylbenzene | U | | 0.810 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Styrene | U | | 0.585 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,1,2-Tetrachloroethane | U | | 0.600 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2,2-Tetrachloroethane | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.820 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Tetrachloroethene | 194 | | 0.995 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Toluene | U | | 2.06 | 5.00 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trichlorobenzene | U | | 0.820 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,4-Trichlorobenzene | U | | 1.78 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,1-Trichloroethane | U | | 0.470 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,1,2-Trichloroethane | U | | 0.930 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Trichloroethene | 492 | | 0.765 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Trichlorofluoromethane | U | | 0.650 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trichloropropane | U | | 1.24 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,4-Trimethylbenzene | U | | 0.615 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,2,3-Trimethylbenzene | U | | 0.370 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| 1,3,5-Trimethylbenzene | U | | 0.620 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Vinyl acetate | U | | 3.22 | 12.5 | 5 | 04/19/2017 05:42 | WG971582 |
| Vinyl chloride | 0.885 | J J | 0.590 | 2.50 | 5 | 04/19/2017 05:42 | WG971582 |
| Xylenes, Total | U | | 1.58 | 7.50 | 5 | 04/19/2017 05:42 | WG971582 |
| *(S) Toluene-d8* | *102* | | | *80.0-120* | | *04/19/2017 05:42* | WG971582 |
| *(S) Toluene-d8* | *103* | | | *80.0-120* | | *04/20/2017 00:36* | WG971582 |
| *(S) Dibromofluoromethane* | *105* | | | *76.0-123* | | *04/19/2017 05:42* | WG971582 |
| *(S) Dibromofluoromethane* | *110* | | | *76.0-123* | | *04/20/2017 00:36* | WG971582 |
| *(S) 4-Bromofluorobenzene* | *95.7* | | | *80.0-120* | | *04/19/2017 05:42* | WG971582 |
| *(S) 4-Bromofluorobenzene* | *102* | | | *80.0-120* | | *04/20/2017 00:36* | WG971582 |

Cp Tc Ss Cn Sr Qc Gl Al Sc

QC 4/25/17

# ANALYTICAL REPORT

April 27, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L902977 |
| Samples Received: | 04/15/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW106-041417 L902977-01 GW

Collected by: Chris D
Collected date/time: 04/14/17 14:15
Received date/time: 04/15/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Wet Chemistry by Method 2320 B-2011 | WG971339 | 1 | 04/18/17 09:37 | 04/18/17 09:37 | AMC |
| Wet Chemistry by Method 9056A | WG970796 | 1 | 04/15/17 15:21 | 04/15/17 15:21 | MCG |
| Wet Chemistry by Method 9060A | WG971114 | 10 | 04/17/17 15:16 | 04/17/17 15:16 | SJM |
| Metals (ICPMS) by Method 6020 | WG970972 | 1 | 04/17/17 19:24 | 04/18/17 11:30 | JPD |
| Volatile Organic Compounds (GC) by Method RSK175 | WG971361 | 1 | 04/18/17 12:02 | 04/18/17 12:02 | MJ |
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974106 | 1 | 04/26/17 23:40 | 04/26/17 23:40 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity | 309000 | | 2710 | 20000 | 1 | 04/18/2017 09:37 | WG971339 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 28700 | | 51.9 | 1000 | 1 | 04/15/2017 15:21 | WG970796 |
| Nitrate | U | | 22.7 | 100 | 1 | 04/15/2017 15:21 | WG970796 |
| Sulfate | 17900 | | 77.4 | 5000 | 1 | 04/15/2017 15:21 | WG970796 |

## Wet Chemistry by Method 9060A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| TOC (Total Organic Carbon) | 5930 | J | 1020 | 10000 | 10 | 04/17/2017 15:16 | WG971114 |

## Metals (ICPMS) by Method 6020

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Iron | 14100 | | 15.0 | 100 | 1 | 04/18/2017 11:30 | WG970972 |
| Manganese | 1080 | | 0.250 | 5.00 | 1 | 04/18/2017 11:30 | WG970972 |

## Volatile Organic Compounds (GC) by Method RSK175

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Methane | 79.5 | | 0.287 | 0.678 | 1 | 04/18/2017 12:02 | WG971361 |
| Ethane | U | | 0.296 | 1.29 | 1 | 04/18/2017 12:02 | WG971361 |
| Ethene | 2.62 | | 0.422 | 1.27 | 1 | 04/18/2017 12:02 | WG971361 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.53 | J J4 | 1.05 | 25.0 | 1 | 04/26/2017 23:40 | WG974106 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Carbon disulfide | 0.641 | | 0.101 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/26/2017 23:40 | WG974106 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/26/2017 23:40 | WG974106 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/26/2017 23:40 | WG974106 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Toluene | U | | 0.412 | 1.00 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Vinyl acetate | U | J4 | 0.645 | 2.50 | 1 | 04/26/2017 23:40 | WG974106 |
| Vinyl chloride | U | | 0.118 | 0.500 | 1 | 04/26/2017 23:40 | WG974106 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/26/2017 23:40 | WG974106 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/26/2017 23:40* | WG974106 |
| *(S) Dibromofluoromethane* | *111* | | | *76.0-123* | | *04/26/2017 23:40* | WG974106 |
| *(S) 4-Bromofluorobenzene* | *96.7* | | | *80.0-120* | | *04/26/2017 23:40* | WG974106 |

## Method Blank (MB)

(MB) R3211720-1 04/18/17 08:05

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity | U | | 2710 | 20000 |

## L902903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902903-01 04/18/17 08:20 • (DUP) R3211720-2 04/18/17 08:28

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 460000 | 489000 | 1 | 6.00 | | 20 |

## L903033-08 Original Sample (OS) • Duplicate (DUP)

(OS) L903033-08 04/18/17 11:08 • (DUP) R3211720-5 04/18/17 11:18

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity | 39100 | 37700 | 1 | 4.00 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211720-3 04/18/17 09:14 • (LCSD) R3211720-4 04/18/17 10:55

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Alkalinity | 100000 | 97900 | 98100 | 98.0 | 98.0 | 85.0-115 | | | 0.000 | 20 |

## Method Blank (MB)

(MB) R3211274-1 04/15/17 05:51

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 51.9 | 1000 |
| Nitrate | U | | 22.7 | 100 |
| Sulfate | U | | 77.4 | 5000 |

## L902943-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902943-01 04/15/17 13:03 • (DUP) R3211274-4 04/15/17 13:18

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 357000 | 354000 | 10 | 1 | | 15 |
| Nitrate | 64000 | 70800 | 10 | 10 | | 15 |
| Sulfate | 946000 | 946000 | 10 | 0 | | 15 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211274-2 04/15/17 06:07 • (LCSD) R3211274-3 04/15/17 06:22

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Chloride | 40000 | 39600 | 39700 | 99 | 99 | 80-120 | | | 0 | 15 |
| Nitrate | 8000 | 8120 | 8120 | 102 | 102 | 80-120 | | | 0 | 15 |
| Sulfate | 40000 | 39800 | 39800 | 100 | 99 | 80-120 | | | 0 | 15 |

## L902977-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902977-01 04/15/17 15:21 • (MS) R3211274-5 04/15/17 15:37 • (MSD) R3211274-6 04/15/17 15:52

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Chloride | 50000 | 28700 | 78200 | 78500 | 99 | 99 | 1 | 80-120 | | | 0 | 15 |
| Nitrate | 5000 | U | 5030 | 5040 | 101 | 101 | 1 | 80-120 | | | 0 | 15 |
| Sulfate | 50000 | 17900 | 68100 | 68100 | 100 | 100 | 1 | 80-120 | | | 0 | 15 |

## Method Blank (MB)

(MB) R3211244-1 04/17/17 09:34

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| TOC (Total Organic Carbon) | U | | 102 | 1000 |

## L902826-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902826-01 04/17/17 11:46 • (DUP) R3211244-3 04/17/17 12:01

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| TOC (Total Organic Carbon) | 5220 | 4720 | 1 | 10 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211244-2 04/17/17 11:26 • (LCSD) R3211244-4 04/17/17 13:44

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| TOC (Total Organic Carbon) | 75000 | 74800 | 77500 | 100 | 103 | 85-115 | | | 4 | 20 |

## L902996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902996-01 04/17/17 15:36 • (MS) R3211244-5 04/17/17 15:56 • (MSD) R3211244-6 04/17/17 16:16

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| TOC (Total Organic Carbon) | 50000 | 1980 | 54400 | 54600 | 105 | 105 | 1 | 80-120 | | | 0 | 20 |

## Method Blank (MB)

(MB) R3211509-1 04/18/17 10:34

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Iron | U | | 15.0 | 100 |
| Manganese | 0.274 | J | 0.250 | 5.00 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211509-2 04/18/17 10:38 • (LCSD) R3211509-3 04/18/17 10:41

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Iron | 5000 | 5040 | 5080 | 101 | 102 | 80-120 | | | 1 | 20 |
| Manganese | 50.0 | 49.2 | 48.9 | 98 | 98 | 80-120 | | | 1 | 20 |

## L902939-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902939-02 04/18/17 10:45 • (MS) R3211509-5 04/18/17 10:52 • (MSD) R3211509-6 04/18/17 10:55

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Iron | 5000 | ND | 4910 | 5010 | 98 | 100 | 1 | 75-125 | | | 2 | 20 |
| Manganese | 50.0 | 246 | 290 | 291 | 88 | 90 | 1 | 75-125 | | | 0 | 20 |

## Method Blank (MB)

(MB) R3211767-1 04/18/17 11:28

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Methane | U | | 0.287 | 0.678 |
| Ethane | U | | 0.296 | 1.29 |
| Ethene | U | | 0.422 | 1.27 |

## L902972-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902972-01 04/18/17 11:45 • (DUP) R3211767-2 04/18/17 14:48

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## L903022-09 Original Sample (OS) • Duplicate (DUP)

(OS) L903022-09 04/18/17 15:21 • (DUP) R3211767-3 04/18/17 18:07

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Methane | 2730 | 3140 | 1 | 14.1 | E | 20 |
| Ethane | ND | 0.000 | 1 | 0.000 | | 20 |
| Ethene | ND | 0.000 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211767-4 04/18/17 18:24 • (LCSD) R3211767-5 04/18/17 18:40

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | % | % | % | | | % | % |
| Methane | 67.8 | 66.2 | 66.3 | 97.7 | 97.8 | 70.0-130 | | | 0.0800 | 20 |
| Ethane | 129 | 118 | 118 | 91.3 | 91.4 | 70.0-130 | | | 0.180 | 20 |
| Ethene | 127 | 115 | 115 | 90.8 | 90.7 | 70.0-130 | | | 0.110 | 20 |

## Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 |

## Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *96.3* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 230 | 205 | 184 | 164 | 10.0-160 | J4 | J4 | 11.6 | 23 |
| Acrylonitrile | 125 | 148 | 139 | 119 | 111 | 60.0-142 | | | 6.33 | 20 |
| Benzene | 25.0 | 26.8 | 26.7 | 107 | 107 | 69.0-123 | | | 0.350 | 20 |
| Bromobenzene | 25.0 | 23.2 | 23.9 | 92.8 | 95.7 | 79.0-120 | | | 3.03 | 20 |
| Bromodichloromethane | 25.0 | 24.7 | 24.8 | 98.9 | 99.2 | 76.0-120 | | | 0.280 | 20 |
| Bromochloromethane | 25.0 | 23.8 | 23.8 | 95.0 | 95.0 | 76.0-122 | | | 0.0300 | 20 |
| Bromoform | 25.0 | 22.6 | 22.6 | 90.5 | 90.4 | 67.0-132 | | | 0.0700 | 20 |
| Bromomethane | 25.0 | 26.5 | 26.8 | 106 | 107 | 18.0-160 | | | 0.970 | 20 |
| n-Butylbenzene | 25.0 | 22.5 | 22.8 | 89.9 | 91.2 | 72.0-126 | | | 1.53 | 20 |
| sec-Butylbenzene | 25.0 | 21.8 | 22.3 | 87.2 | 89.3 | 74.0-121 | | | 2.31 | 20 |
| tert-Butylbenzene | 25.0 | 21.4 | 21.8 | 85.7 | 87.3 | 75.0-122 | | | 1.83 | 20 |
| Carbon disulfide | 25.0 | 24.9 | 24.9 | 99.5 | 99.4 | 55.0-127 | | | 0.0600 | 20 |
| Carbon tetrachloride | 25.0 | 27.4 | 27.3 | 110 | 109 | 63.0-122 | | | 0.530 | 20 |
| Chlorobenzene | 25.0 | 21.9 | 22.5 | 87.6 | 90.1 | 79.0-121 | | | 2.87 | 20 |
| Chlorodibromomethane | 25.0 | 22.1 | 22.3 | 88.6 | 89.0 | 75.0-125 | | | 0.500 | 20 |
| Chloroethane | 25.0 | 27.3 | 27.6 | 109 | 110 | 47.0-152 | | | 1.10 | 20 |
| Chloroform | 25.0 | 25.8 | 25.7 | 103 | 103 | 72.0-121 | | | 0.420 | 20 |
| Chloromethane | 25.0 | 28.7 | 28.7 | 115 | 115 | 48.0-139 | | | 0.0200 | 20 |
| 2-Chlorotoluene | 25.0 | 22.7 | 23.4 | 90.8 | 93.6 | 74.0-122 | | | 3.01 | 20 |
| 4-Chlorotoluene | 25.0 | 21.9 | 22.5 | 87.5 | 90.0 | 79.0-120 | | | 2.78 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.2 | 23.9 | 96.8 | 95.6 | 64.0-127 | | | 1.23 | 20 |
| 1,2-Dibromoethane | 25.0 | 23.1 | 23.0 | 92.5 | 92.1 | 77.0-123 | | | 0.390 | 20 |
| Dibromomethane | 25.0 | 25.5 | 24.8 | 102 | 99.1 | 78.0-120 | | | 2.86 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 22.6 | 23.0 | 90.3 | 92.2 | 80.0-120 | | | 2.10 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 22.3 | 22.7 | 89.3 | 90.9 | 72.0-123 | | | 1.85 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 23.5 | 23.9 | 94.0 | 95.7 | 77.0-120 | | | 1.77 | 20 |
| Dichlorodifluoromethane | 25.0 | 25.8 | 24.6 | 103 | 98.5 | 49.0-155 | | | 4.53 | 20 |
| 1,1-Dichloroethane | 25.0 | 26.4 | 26.3 | 106 | 105 | 70.0-126 | | | 0.540 | 20 |
| 1,2-Dichloroethane | 25.0 | 26.3 | 25.7 | 105 | 103 | 67.0-126 | | | 2.30 | 20 |
| 1,1-Dichloroethene | 25.0 | 25.0 | 24.9 | 100 | 99.7 | 64.0-129 | | | 0.340 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 24.6 | 24.7 | 98.5 | 98.7 | 73.0-120 | | | 0.280 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 24.5 | 24.4 | 98.0 | 97.5 | 71.0-121 | | | 0.490 | 20 |
| 1,2-Dichloropropane | 25.0 | 25.8 | 26.0 | 103 | 104 | 75.0-125 | | | 0.670 | 20 |
| 1,1-Dichloropropene | 25.0 | 25.3 | 25.1 | 101 | 101 | 71.0-129 | | | 0.460 | 20 |
| 1,3-Dichloropropane | 25.0 | 24.1 | 24.2 | 96.5 | 96.6 | 80.0-121 | | | 0.120 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 24.6 | 97.2 | 98.3 | 79.0-123 | | | 1.16 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 24.4 | 24.5 | 97.6 | 98.2 | 74.0-127 | | | 0.580 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.6 | 20.2 | 82.6 | 80.9 | 55.0-134 | | | 2.09 | 20 |
| 2,2-Dichloropropane | 25.0 | 19.9 | 19.7 | 79.7 | 78.7 | 60.0-125 | | | 1.23 | 20 |
| Di-isopropyl ether | 25.0 | 29.1 | 28.6 | 116 | 114 | 59.0-133 | | | 1.69 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 25.0 | 22.7 | 23.4 | 90.8 | 93.7 | 77.0-120 | | | 3.10 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 21.2 | 21.6 | 84.8 | 86.2 | 64.0-131 | | | 1.73 | 20 |
| 2-Hexanone | 125 | 164 | 153 | 131 | 123 | 58.0-147 | | | 6.47 | 20 |
| n-Hexane | 25.0 | 23.5 | 23.4 | 94.0 | 93.8 | 56.0-124 | | | 0.280 | 20 |
| Iodomethane | 125 | 121 | 122 | 96.6 | 97.6 | 57.0-140 | | | 1.11 | 20 |
| Isopropylbenzene | 25.0 | 22.0 | 22.7 | 88.2 | 90.9 | 75.0-120 | | | 2.99 | 20 |
| p-Isopropyltoluene | 25.0 | 21.7 | 22.0 | 86.6 | 88.1 | 74.0-126 | | | 1.72 | 20 |
| 2-Butanone (MEK) | 125 | 184 | 169 | 148 | 135 | 37.0-158 | | | 9.01 | 20 |
| Methylene Chloride | 25.0 | 25.8 | 25.6 | 103 | 103 | 66.0-121 | | | 0.560 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 153 | 146 | 122 | 117 | 59.0-143 | | | 4.80 | 20 |
| Methyl tert-butyl ether | 25.0 | 27.8 | 27.0 | 111 | 108 | 64.0-123 | | | 3.06 | 20 |
| Naphthalene | 25.0 | 23.9 | 23.5 | 95.8 | 94.2 | 62.0-128 | | | 1.70 | 20 |
| n-Propylbenzene | 25.0 | 22.3 | 22.8 | 89.1 | 91.1 | 79.0-120 | | | 2.14 | 20 |
| Styrene | 25.0 | 23.1 | 23.8 | 92.5 | 95.4 | 78.0-124 | | | 3.01 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 21.4 | 22.2 | 85.6 | 88.7 | 75.0-122 | | | 3.54 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 21.0 | 20.4 | 84.0 | 81.8 | 71.0-122 | | | 2.71 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 23.0 | 23.2 | 91.8 | 92.8 | 61.0-136 | | | 1.06 | 20 |
| Tetrachloroethene | 25.0 | 21.4 | 21.9 | 85.5 | 87.4 | 70.0-127 | | | 2.27 | 20 |
| Toluene | 25.0 | 24.7 | 25.3 | 98.9 | 101 | 77.0-120 | | | 2.23 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 21.9 | 22.1 | 87.8 | 88.5 | 61.0-133 | | | 0.820 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 21.5 | 21.7 | 85.9 | 87.0 | 69.0-129 | | | 1.26 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 24.6 | 24.4 | 98.3 | 97.4 | 68.0-122 | | | 0.890 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 24.1 | 23.9 | 96.4 | 95.7 | 78.0-120 | | | 0.700 | 20 |
| Trichloroethene | 25.0 | 25.1 | 25.4 | 100 | 102 | 78.0-120 | | | 1.04 | 20 |
| Trichlorofluoromethane | 25.0 | 25.1 | 24.8 | 100 | 99.2 | 56.0-137 | | | 1.14 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 23.2 | 23.1 | 92.6 | 92.5 | 72.0-124 | | | 0.150 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 21.5 | 22.1 | 86.1 | 88.5 | 75.0-120 | | | 2.73 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.9 | 24.3 | 95.5 | 97.2 | 75.0-120 | | | 1.83 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 21.8 | 22.4 | 87.4 | 89.6 | 75.0-120 | | | 2.51 | 20 |
| Vinyl acetate | 125 | 50.9 | 49.2 | 40.7 | 39.4 | 46.0-160 | J4 | J4 | 3.32 | 20 |
| Vinyl chloride | 25.0 | 28.4 | 28.4 | 113 | 114 | 64.0-133 | | | 0.0700 | 20 |
| Xylenes, Total | 75.0 | 68.2 | 70.3 | 90.9 | 93.7 | 77.0-120 | | | 3.03 | 20 |
| *(S) Toluene-d8* | | | | *107* | *107* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *107* | *105* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *97.1* | *98.9* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| E | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | |
|---|---|
| Alabama | 40660 |
| Alaska | UST-080 |
| Arizona | AZ0612 |
| Arkansas | 88-0469 |
| California | 01157CA |
| Colorado | TN00003 |
| Conneticut | PH-0197 |
| Florida | E87487 |
| Georgia | NELAP |
| Georgia [1] | 923 |
| Idaho | TN00003 |
| Illinois | 200008 |
| Indiana | C-TN-01 |
| Iowa | 364 |
| Kansas | E-10277 |
| Kentucky [1] | 90010 |
| Kentucky [2] | 16 |
| Louisiana | AI30792 |
| Maine | TN0002 |
| Maryland | 324 |
| Massachusetts | M-TN003 |
| Michigan | 9958 |
| Minnesota | 047-999-395 |
| Mississippi | TN00003 |
| Missouri | 340 |
| Montana | CERT0086 |
| Nebraska | NE-OS-15-05 |
| Nevada | TN-03-2002-34 |
| New Hampshire | 2975 |
| New Jersey–NELAP | TN002 |
| New Mexico | TN00003 |
| New York | 11742 |
| North Carolina | Env375 |
| North Carolina [1] | DW21704 |
| North Carolina [2] | 41 |
| North Dakota | R-140 |
| Ohio–VAP | CL0069 |
| Oklahoma | 9915 |
| Oregon | TN200002 |
| Pennsylvania | 68-02979 |
| Rhode Island | 221 |
| South Carolina | 84004 |
| South Dakota | n/a |
| Tennessee [1 4] | 2006 |
| Texas | T 104704245-07-TX |
| Texas [5] | LAB0152 |
| Utah | 6157585858 |
| Vermont | VT2006 |
| Virginia | 109 |
| Washington | C1915 |
| West Virginia | 233 |
| Wisconsin | 9980939910 |
| Wyoming | A2LA |

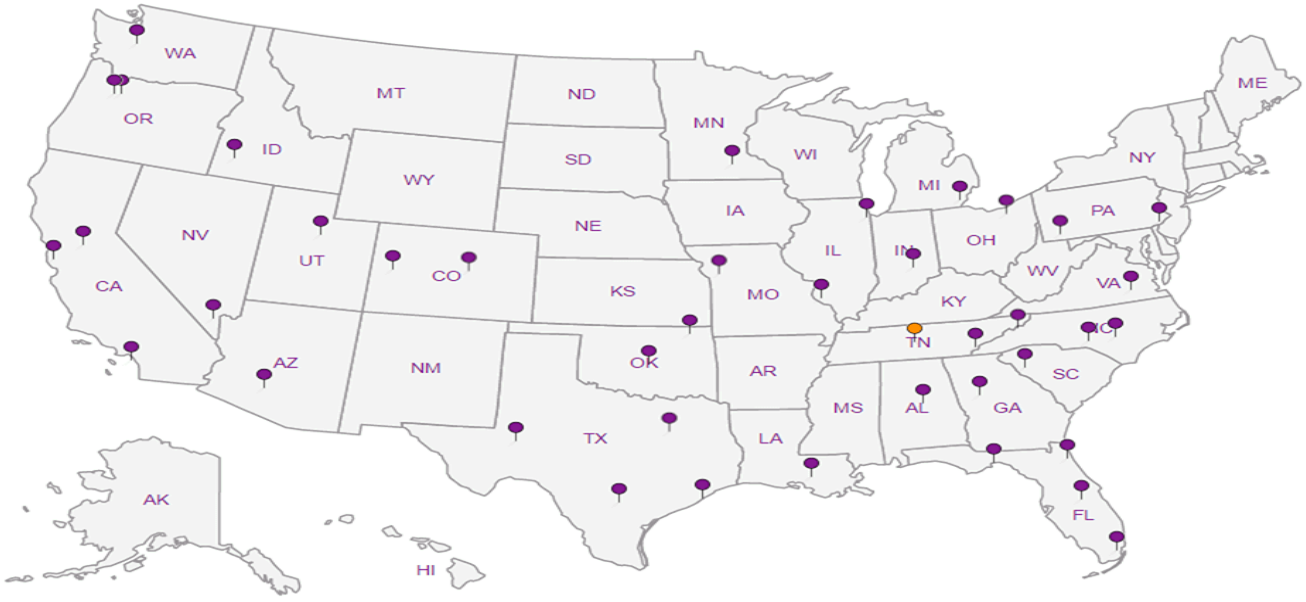
## Third Party & Federal Accreditations

| | |
|---|---|
| A2LA – ISO 17025 | 1461.01 |
| A2LA – ISO 17025 [5] | 1461.02 |
| Canada | 1461.01 |
| EPA–Crypto | TN00003 |
| AIHA-LAP,LLC | 100789 |
| DOD | 1461.01 |
| USDA | S-67674 |

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Chris DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | Pres Chk | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | | | | | Remarks | Sample # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Analysis / Container / Preservative | | | | | | | | | | | |
| MW106-041417 | Grab | GW | 135 | 4/14/17 | 1415 | 9 | | X | | X | X | X | X | | | | | | -01 |
| | | GW | | | | | | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | | | | | | |

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L902977
K209
Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *Nitrate has a 48 hour hold time

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier ___

Tracking # 7176 9011 7236

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| Chris DeBoer | 4/14/17 | 1600 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | | | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | CA |

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.8 °C Bottles Received: 9

Date: 4-15-17 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

# MEMORANDUM

**TO:** Project File **DATE:** May 9, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle, WA

**PROJECT #:** 1413.001.02.002

**TASK:** April 14, 2017- Groundwater Samples

**LAB:** ESC Lab ID L902977

---

One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 14, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22$^{nd}$ Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L902977. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L902977 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

The sample was collected and analyzed as requested.

### Sample Collection and Preservation

Sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.8 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

### Holding Times

*USEPA Method 8260C:*
The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*Method RSK-175:*
The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

*USEPA Method 6020:*
The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) are not detected in the method blank at or above the reported detection limits (RDLs).

*Method RSK-175:*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL. No qualifications of the data are made due to the results of the method blank analysis.

*USEPA Method 6020:*
Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL with the following discussion:

- A low level manganese result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for manganese is significantly greater than the manganese detection in the method blank.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL.

## Trip Blank Results

*USEPA Method 8260C (VOCs)*:
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*
Laboratory duplicate sample analyses were performed on sample MW106-041417 and on a non-client sample within the analytical batch. Non-client sample/sample duplicate results exceeded the upper limit of the calibration range but no action was taken since it is a non-client sample. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*
A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*
*SM 2320B:* Laboratory duplicate sample analysis was performed on non-client sample within the analytical batch. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analysis was performed on non-client sample within the analytical batch. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analysis was performed non-client sample within the analytical batch. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussions:

- LCS/LCSD (Batch WG974106) compounds acetone and vinyl acetate percent recoveries are outside of laboratory acceptance criteria and qualified by the laboratory (J4). **Acetone was detected at a low level in sample MW106-041417 and is estimated (J) due to elevated LCS/LCSD recoveries. Vinyl acetate was not detected in sample MW106-041417 and the result is estimated (UJ) due to low LCS/LCSD recoveries.**

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*
LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for iron and manganese are within the laboratory control criteria for water.

*General Chemistry:*
*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPDs for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*
Matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on VOC samples. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*
MS/MSD analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*
MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*
*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on sample MW106-041417. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group are acceptable for the project.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

# ANALYTICAL REPORT

April 27, 2017

## PES Environmental, Inc.- WA

| | |
|---|---|
| Sample Delivery Group: | L904441 |
| Samples Received: | 04/22/2017 |
| Project Number: | 1413.001.02.002 |
| Description: | American Linen Supply |
| Site: | 700 DEXTER AVE N SEATTLE WA |
| Report To: | Bill Haldeman<br>1215 Fourth Ave., Suite 1350<br>Seattle, WA 98161 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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## MW105-042117 L904441-01 GW

Collected by: Chris D
Collected date/time: 04/21/17 12:15
Received date/time: 04/22/17 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260C | WG974106 | 1 | 04/26/17 23:55 | 04/26/17 23:55 | LRL |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.44 | J J4 | 1.05 | 25.0 | 1 | 04/26/2017 23:55 | WG974106 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Carbon disulfide | 0.192 | J | 0.101 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| cis-1,2-Dichloroethene | 0.155 | J | 0.0933 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Toluene | 0.544 | J | 0.412 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Vinyl acetate | U | J4 | 0.645 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Vinyl chloride | 1.95 | | 0.118 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/26/2017 23:55 | WG974106 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/26/2017 23:55* | WG974106 |
| *(S) Dibromofluoromethane* | *109* | | | *76.0-123* | | *04/26/2017 23:55* | WG974106 |
| *(S) 4-Bromofluorobenzene* | *95.1* | | | *80.0-120* | | *04/26/2017 23:55* | WG974106 |

## Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Acetone | U | | 1.05 | 25.0 |
| Acrylonitrile | U | | 0.873 | 2.50 |
| Benzene | U | | 0.0896 | 0.500 |
| Bromobenzene | U | | 0.133 | 0.500 |
| Bromodichloromethane | U | | 0.0800 | 0.500 |
| Bromochloromethane | U | | 0.145 | 0.500 |
| Bromoform | U | | 0.186 | 0.500 |
| Bromomethane | U | | 0.157 | 0.500 |
| n-Butylbenzene | U | | 0.143 | 0.500 |
| sec-Butylbenzene | U | | 0.134 | 0.500 |
| tert-Butylbenzene | U | | 0.183 | 0.500 |
| Carbon disulfide | U | | 0.101 | 0.500 |
| Carbon tetrachloride | U | | 0.159 | 0.500 |
| Chlorobenzene | U | | 0.140 | 0.500 |
| Chlorodibromomethane | U | | 0.128 | 0.500 |
| Chloroethane | U | | 0.141 | 0.500 |
| Chloroform | U | | 0.0860 | 0.500 |
| Chloromethane | U | | 0.153 | 0.500 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 |
| Dibromomethane | U | | 0.117 | 0.500 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 |
| cis-1,2-Dichloroethene | U | | 0.0933 | 0.500 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 |

## Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Ethylbenzene | U | | 0.158 | 0.500 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 |
| 2-Hexanone | U | | 0.757 | 2.50 |
| n-Hexane | U | | 0.305 | 1.00 |
| Iodomethane | U | | 0.377 | 2.50 |
| Isopropylbenzene | U | | 0.126 | 0.500 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 |
| Methylene Chloride | U | | 1.07 | 2.50 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 |
| Naphthalene | U | | 0.174 | 0.500 |
| n-Propylbenzene | U | | 0.162 | 0.500 |
| Styrene | U | | 0.117 | 0.500 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 |
| Tetrachloroethene | U | | 0.199 | 0.500 |
| Toluene | U | | 0.412 | 1.00 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 |
| Trichloroethene | U | | 0.153 | 0.500 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 |
| Vinyl acetate | U | | 0.645 | 2.50 |
| Vinyl chloride | U | | 0.118 | 0.500 |
| Xylenes, Total | U | | 0.316 | 1.50 |
| *(S) Toluene-d8* | *108* | | | *80.0-120* |
| *(S) Dibromofluoromethane* | *107* | | | *76.0-123* |
| *(S) 4-Bromofluorobenzene* | *96.3* | | | *80.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 125 | 230 | 205 | 184 | 164 | 10.0-160 | J4 | J4 | 11.6 | 23 |
| Acrylonitrile | 125 | 148 | 139 | 119 | 111 | 60.0-142 | | | 6.33 | 20 |
| Benzene | 25.0 | 26.8 | 26.7 | 107 | 107 | 69.0-123 | | | 0.350 | 20 |
| Bromobenzene | 25.0 | 23.2 | 23.9 | 92.8 | 95.7 | 79.0-120 | | | 3.03 | 20 |
| Bromodichloromethane | 25.0 | 24.7 | 24.8 | 98.9 | 99.2 | 76.0-120 | | | 0.280 | 20 |
| Bromochloromethane | 25.0 | 23.8 | 23.8 | 95.0 | 95.0 | 76.0-122 | | | 0.0300 | 20 |
| Bromoform | 25.0 | 22.6 | 22.6 | 90.5 | 90.4 | 67.0-132 | | | 0.0700 | 20 |
| Bromomethane | 25.0 | 26.5 | 26.8 | 106 | 107 | 18.0-160 | | | 0.970 | 20 |
| n-Butylbenzene | 25.0 | 22.5 | 22.8 | 89.9 | 91.2 | 72.0-126 | | | 1.53 | 20 |
| sec-Butylbenzene | 25.0 | 21.8 | 22.3 | 87.2 | 89.3 | 74.0-121 | | | 2.31 | 20 |
| tert-Butylbenzene | 25.0 | 21.4 | 21.8 | 85.7 | 87.3 | 75.0-122 | | | 1.83 | 20 |
| Carbon disulfide | 25.0 | 24.9 | 24.9 | 99.5 | 99.4 | 55.0-127 | | | 0.0600 | 20 |
| Carbon tetrachloride | 25.0 | 27.4 | 27.3 | 110 | 109 | 63.0-122 | | | 0.530 | 20 |
| Chlorobenzene | 25.0 | 21.9 | 22.5 | 87.6 | 90.1 | 79.0-121 | | | 2.87 | 20 |
| Chlorodibromomethane | 25.0 | 22.1 | 22.3 | 88.6 | 89.0 | 75.0-125 | | | 0.500 | 20 |
| Chloroethane | 25.0 | 27.3 | 27.6 | 109 | 110 | 47.0-152 | | | 1.10 | 20 |
| Chloroform | 25.0 | 25.8 | 25.7 | 103 | 103 | 72.0-121 | | | 0.420 | 20 |
| Chloromethane | 25.0 | 28.7 | 28.7 | 115 | 115 | 48.0-139 | | | 0.0200 | 20 |
| 2-Chlorotoluene | 25.0 | 22.7 | 23.4 | 90.8 | 93.6 | 74.0-122 | | | 3.01 | 20 |
| 4-Chlorotoluene | 25.0 | 21.9 | 22.5 | 87.5 | 90.0 | 79.0-120 | | | 2.78 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.2 | 23.9 | 96.8 | 95.6 | 64.0-127 | | | 1.23 | 20 |
| 1,2-Dibromoethane | 25.0 | 23.1 | 23.0 | 92.5 | 92.1 | 77.0-123 | | | 0.390 | 20 |
| Dibromomethane | 25.0 | 25.5 | 24.8 | 102 | 99.1 | 78.0-120 | | | 2.86 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 22.6 | 23.0 | 90.3 | 92.2 | 80.0-120 | | | 2.10 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 22.3 | 22.7 | 89.3 | 90.9 | 72.0-123 | | | 1.85 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 23.5 | 23.9 | 94.0 | 95.7 | 77.0-120 | | | 1.77 | 20 |
| Dichlorodifluoromethane | 25.0 | 25.8 | 24.6 | 103 | 98.5 | 49.0-155 | | | 4.53 | 20 |
| 1,1-Dichloroethane | 25.0 | 26.4 | 26.3 | 106 | 105 | 70.0-126 | | | 0.540 | 20 |
| 1,2-Dichloroethane | 25.0 | 26.3 | 25.7 | 105 | 103 | 67.0-126 | | | 2.30 | 20 |
| 1,1-Dichloroethene | 25.0 | 25.0 | 24.9 | 100 | 99.7 | 64.0-129 | | | 0.340 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 24.6 | 24.7 | 98.5 | 98.7 | 73.0-120 | | | 0.280 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 24.5 | 24.4 | 98.0 | 97.5 | 71.0-121 | | | 0.490 | 20 |
| 1,2-Dichloropropane | 25.0 | 25.8 | 26.0 | 103 | 104 | 75.0-125 | | | 0.670 | 20 |
| 1,1-Dichloropropene | 25.0 | 25.3 | 25.1 | 101 | 101 | 71.0-129 | | | 0.460 | 20 |
| 1,3-Dichloropropane | 25.0 | 24.1 | 24.2 | 96.5 | 96.6 | 80.0-121 | | | 0.120 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 24.6 | 97.2 | 98.3 | 79.0-123 | | | 1.16 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 24.4 | 24.5 | 97.6 | 98.2 | 74.0-127 | | | 0.580 | 20 |
| trans-1,4-Dichloro-2-butene | 25.0 | 20.6 | 20.2 | 82.6 | 80.9 | 55.0-134 | | | 2.09 | 20 |
| 2,2-Dichloropropane | 25.0 | 19.9 | 19.7 | 79.7 | 78.7 | 60.0-125 | | | 1.23 | 20 |
| Di-isopropyl ether | 25.0 | 29.1 | 28.6 | 116 | 114 | 59.0-133 | | | 1.69 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCSD Result ug/l | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 25.0 | 22.7 | 23.4 | 90.8 | 93.7 | 77.0-120 | | | 3.10 | 20 |
| Hexachloro-1,3-butadiene | 25.0 | 21.2 | 21.6 | 84.8 | 86.2 | 64.0-131 | | | 1.73 | 20 |
| 2-Hexanone | 125 | 164 | 153 | 131 | 123 | 58.0-147 | | | 6.47 | 20 |
| n-Hexane | 25.0 | 23.5 | 23.4 | 94.0 | 93.8 | 56.0-124 | | | 0.280 | 20 |
| Iodomethane | 125 | 121 | 122 | 96.6 | 97.6 | 57.0-140 | | | 1.11 | 20 |
| Isopropylbenzene | 25.0 | 22.0 | 22.7 | 88.2 | 90.9 | 75.0-120 | | | 2.99 | 20 |
| p-Isopropyltoluene | 25.0 | 21.7 | 22.0 | 86.6 | 88.1 | 74.0-126 | | | 1.72 | 20 |
| 2-Butanone (MEK) | 125 | 184 | 169 | 148 | 135 | 37.0-158 | | | 9.01 | 20 |
| Methylene Chloride | 25.0 | 25.8 | 25.6 | 103 | 103 | 66.0-121 | | | 0.560 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 153 | 146 | 122 | 117 | 59.0-143 | | | 4.80 | 20 |
| Methyl tert-butyl ether | 25.0 | 27.8 | 27.0 | 111 | 108 | 64.0-123 | | | 3.06 | 20 |
| Naphthalene | 25.0 | 23.9 | 23.5 | 95.8 | 94.2 | 62.0-128 | | | 1.70 | 20 |
| n-Propylbenzene | 25.0 | 22.3 | 22.8 | 89.1 | 91.1 | 79.0-120 | | | 2.14 | 20 |
| Styrene | 25.0 | 23.1 | 23.8 | 92.5 | 95.4 | 78.0-124 | | | 3.01 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 21.4 | 22.2 | 85.6 | 88.7 | 75.0-122 | | | 3.54 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 21.0 | 20.4 | 84.0 | 81.8 | 71.0-122 | | | 2.71 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 25.0 | 23.0 | 23.2 | 91.8 | 92.8 | 61.0-136 | | | 1.06 | 20 |
| Tetrachloroethene | 25.0 | 21.4 | 21.9 | 85.5 | 87.4 | 70.0-127 | | | 2.27 | 20 |
| Toluene | 25.0 | 24.7 | 25.3 | 98.9 | 101 | 77.0-120 | | | 2.23 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 21.9 | 22.1 | 87.8 | 88.5 | 61.0-133 | | | 0.820 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 21.5 | 21.7 | 85.9 | 87.0 | 69.0-129 | | | 1.26 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 24.6 | 24.4 | 98.3 | 97.4 | 68.0-122 | | | 0.890 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 24.1 | 23.9 | 96.4 | 95.7 | 78.0-120 | | | 0.700 | 20 |
| Trichloroethene | 25.0 | 25.1 | 25.4 | 100 | 102 | 78.0-120 | | | 1.04 | 20 |
| Trichlorofluoromethane | 25.0 | 25.1 | 24.8 | 100 | 99.2 | 56.0-137 | | | 1.14 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 23.2 | 23.1 | 92.6 | 92.5 | 72.0-124 | | | 0.150 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 21.5 | 22.1 | 86.1 | 88.5 | 75.0-120 | | | 2.73 | 20 |
| 1,2,3-Trimethylbenzene | 25.0 | 23.9 | 24.3 | 95.5 | 97.2 | 75.0-120 | | | 1.83 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 21.8 | 22.4 | 87.4 | 89.6 | 75.0-120 | | | 2.51 | 20 |
| Vinyl acetate | 125 | 50.9 | 49.2 | 40.7 | 39.4 | 46.0-160 | J4 | J4 | 3.32 | 20 |
| Vinyl chloride | 25.0 | 28.4 | 28.4 | 113 | 114 | 64.0-133 | | | 0.0700 | 20 |
| Xylenes, Total | 75.0 | 68.2 | 70.3 | 90.9 | 93.7 | 77.0-120 | | | 3.03 | 20 |
| *(S) Toluene-d8* | | | | *107* | *107* | *80.0-120* | | | | |
| *(S) Dibromofluoromethane* | | | | *107* | *105* | *76.0-123* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *97.1* | *98.9* | *80.0-120* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

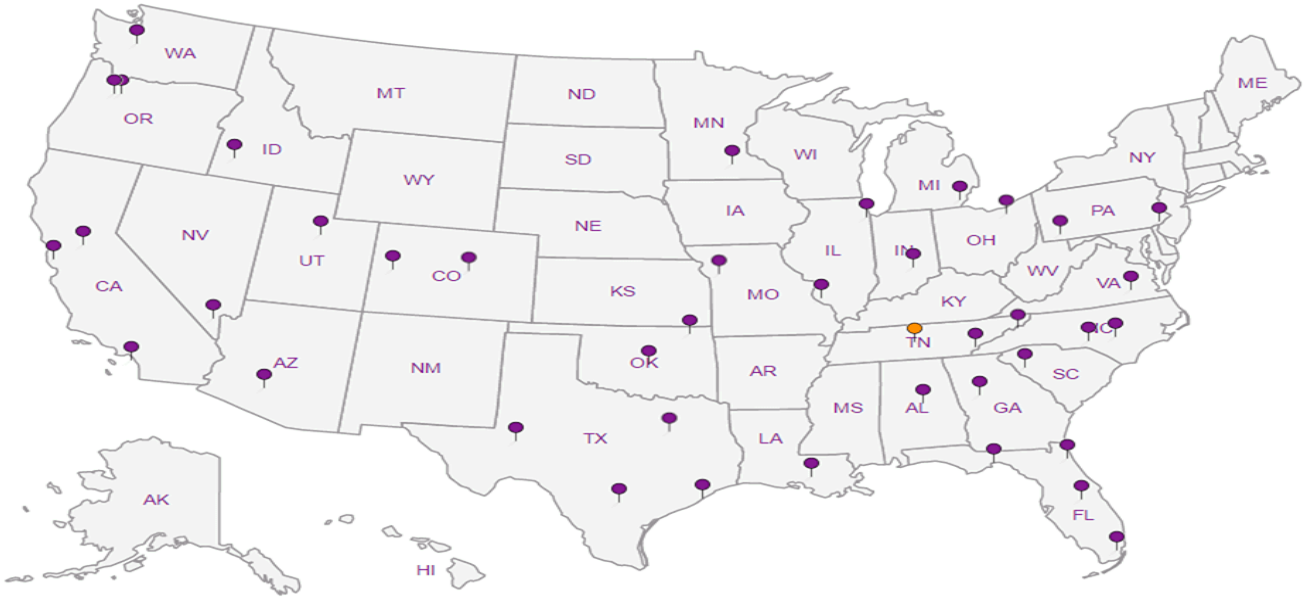
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to: Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.02.002

Lab Project # PESENVSWA-141300102

Collected by (print): Chris DeBoer

Site/Facility ID # 700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature): Chris DeBoer

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | *NO3,Cl,SO4,Alk 250mlHDPE-NoPres | NWTPHGX 40mlAmb HCl | TOC 250mlAmb-HCl | Total Fe Mn 6020 250mlHDPE-HNO3 | low level 8260C 40mlAmb-HCl | low level RSK175 40mlAmb-HCl | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW105-042117 | Grab | GW | 131 | 4/21/17 | 1215 | 4 | | | | | X | | | 01 |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |
| | | GW | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 904441
G081

Acctnum: PESENVSWA
Template: T121414
Prelogin: P592684
TSR: 110 - Brian Ford
PB: 3-13-17

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks: *Nitrate has a 48 hour hold time

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS / FedEx __ Courier __ ___

Tracking # 7176 9011 7258

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| Chris DeBoer | 4/21/17 | 1500 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 0W 3 °C 4.2 Bottles Received: 4 |
| | | | | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 4/22/17 Time: 0845 |
| | | | | Hold: Condition: NCF / OK |

# MEMORANDUM

**TO:** Project File **DATE:** May 9, 2017

**FROM:** Jessie Compeau

**SUBJECT:** Laboratory Data Validation Review

**PROJECT:** Former American Linen Supply Site, Seattle WA

**PROJECT #:** 1413.001.02.002

**TASK:** April 21, 2017- Groundwater Sampling

**LAB:** ESC Lab ID L904441

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 21, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L904441. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L904441 is summarized below.

## DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

## DATA VALIDATION

### Completeness

The sample was collected and analyzed as requested.

### Sample Collection and Preservation

The sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and sample were received at 4.2 degrees

Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

## Holding Times

*USEPA Method 8260C:*
The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

*USEPA Method 8260C (VOCs):*
A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

## Trip Blank Results

*USEPA Method 8260C (VOCs)*:
A trip blank was not collected.

## Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

## Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## Laboratory Duplicate Analyses

*USEPA Method 8260C:*
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

## Surrogate Recoveries

*USEPA Method 8260C (VOCs):*
The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

*USEPA Method 8260C (VOCs):*
An LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG974106) compounds acetone and vinyl acetate percent recoveries are outside of laboratory acceptance criteria and qualified by the laboratory (J4). **Acetone was detected at a low level in sample MW105-042117 and is estimated (J) due to elevated LCS/LCSD recoveries. Vinyl acetate was not detected in sample MW105-042117 and the result is estimated (UJ) due to low LCS/LCSD recoveries.**

## Matrix Spike/Matrix Spike Duplicates

*USEPA Method 8260C (VOCs):*
Matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

## Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

## Quantitation Limits

The RDLs used for this sample group were acceptable for the project.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017)

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Acetone | 1.44 J | J J4 | 1.05 | 25.0 | 1 | 04/26/2017 23:55 | WG974106 |
| Acrylonitrile | U | | 0.873 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Benzene | U | | 0.0896 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromobenzene | U | | 0.133 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromodichloromethane | U | | 0.0800 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromochloromethane | U | | 0.145 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromoform | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Bromomethane | U | | 0.157 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Butylbenzene | U | | 0.143 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| sec-Butylbenzene | U | | 0.134 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| tert-Butylbenzene | U | | 0.183 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Carbon disulfide | 0.192 J | J | 0.101 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Carbon tetrachloride | U | | 0.159 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chlorobenzene | U | | 0.140 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chlorodibromomethane | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloroethane | U | | 0.141 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloroform | U | | 0.0860 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Chloromethane | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Chlorotoluene | U | | 0.111 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 4-Chlorotoluene | U | | 0.0972 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.325 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dibromoethane | U | | 0.193 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Dibromomethane | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichlorobenzene | U | | 0.101 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3-Dichlorobenzene | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,4-Dichlorobenzene | U | | 0.121 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Dichlorodifluoromethane | U | | 0.127 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloroethane | U | | 0.114 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichloroethane | U | | 0.108 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloroethene | U | | 0.188 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| cis-1,2-Dichloroethene | 0.155 J | J | 0.0933 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,2-Dichloroethene | U | | 0.152 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2-Dichloropropane | U | | 0.190 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1-Dichloropropene | U | | 0.128 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3-Dichloropropane | U | | 0.147 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| cis-1,3-Dichloropropene | U | | 0.0976 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,3-Dichloropropene | U | | 0.222 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| trans-1,4-Dichloro-2-butene | U | | 0.257 | 5.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 2,2-Dichloropropane | U | | 0.0929 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Di-isopropyl ether | U | | 0.0924 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Ethylbenzene | U | | 0.158 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Hexachloro-1,3-butadiene | U | | 0.157 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Hexanone | U | | 0.757 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Hexane | U | | 0.305 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| Iodomethane | U | | 0.377 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Isopropylbenzene | U | | 0.126 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| p-Isopropyltoluene | U | | 0.138 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 2-Butanone (MEK) | U | | 1.28 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Methylene Chloride | U | | 1.07 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.823 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Methyl tert-butyl ether | U | | 0.102 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Naphthalene | U | | 0.174 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| n-Propylbenzene | U | | 0.162 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Styrene | U | | 0.117 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,1,2-Tetrachloroethane | U | | 0.120 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,2,2-Tetrachloroethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |

5/9/17

## Volatile Organic Compounds (GC/MS) by Method 8260C

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Tetrachloroethene | U | | 0.199 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Toluene | 0.544 | J J | 0.412 | 1.00 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trichlorobenzene | U | | 0.164 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,4-Trichlorobenzene | U | | 0.355 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,1-Trichloroethane | U | | 0.0940 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,1,2-Trichloroethane | U | | 0.186 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Trichloroethene | U | | 0.153 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Trichlorofluoromethane | U | | 0.130 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trichloropropane | U | | 0.247 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,4-Trimethylbenzene | U | | 0.123 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,2,3-Trimethylbenzene | U | | 0.0739 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| 1,3,5-Trimethylbenzene | U | | 0.124 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Vinyl acetate | U | UJ J4 | 0.645 | 2.50 | 1 | 04/26/2017 23:55 | WG974106 |
| Vinyl chloride | 1.95 | | 0.118 | 0.500 | 1 | 04/26/2017 23:55 | WG974106 |
| Xylenes, Total | U | | 0.316 | 1.50 | 1 | 04/26/2017 23:55 | WG974106 |
| *(S) Toluene-d8* | *107* | | | *80.0-120* | | *04/26/2017 23:55* | WG974106 |
| *(S) Dibromofluoromethane* | *109* | | | *76.0-123* | | *04/26/2017 23:55* | WG974106 |
| *(S) 4-Bromofluorobenzene* | *95.1* | | | *80.0-120* | | *04/26/2017 23:55* | WG974106 |

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

JC 5/4/17