**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (ug/L) | | | | | | | | | | | | | VOCs | SVOCs | Petroleum Hydrocarbons | | | Ordnance Explosives Compounds (ug/L) | | NG (ug/L) | PETN (ug/L) | Picric Acid (ug/L) | Perchlorate (ug/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 01LC-MW01SW | 12/10/03 | Lacamas Cr. | 0.16 | 0.32 | 0.03 | 0.10 | 3.3 | 0.46 | 0.23 | 2.8 | 0.25 | 0.07 | 0.04 | 8.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L |
| 01LC-MW06DW | 12/16/03 | Lacamas Cr. | 0.1 | 0.51 | ND | 0.07 | 3.4 | 0.31 | 0.14 | 4.1 | 0.16 | 0.04 | ND | 2.7 | 0.029 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.0 | < 2 | 47 | chloride, 5 mg/L; sulfate, 8 mg/L |
| 01LC-MW02SW | 12/10/03 | Lacamas Cr. | 0.34 | 0.83 | 0.20 | 0.25 | 1.3 | 0.19 | 0.32 | 1.1 | 0.08 | 0.25 | 0.24 | 2.4 | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L |
| 01LC-MW07DW | 12/16/03 | Lacamas Cr. | 0.07 | 0.78 | ND | ND | 2.3 | 0.25 | 0.17 | 2.1 | ND | ND | ND | 4.1 | 0.033 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 2 mg/L |
| 01LC-MW03SW | 12/10/03 | Lacamas Cr. | 0.09 | 0.60 | 0.02 | 0.15 | 8.3 | 0.98 | 0.41 | 6.4 | ND | 0.04 | ND | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L; nitrate, 0.3 mg/L |
| 01LC-MW08DW | 12/16/03 | Lacamas Cr. | 0.11 | 1.2 | 0.09 | 0.07 | 3.0 | 0.35 | 0.21 | 2.0 | ND | 0.06 | 0.08 | 5.6 | 0.023 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 52 | chloride, 2 mg/L; nitrate, 0.4 mg/L; sulfate, 2 mg/L |
| 01LC-MW04SW | 12/10/03 | Lacamas Cr. | ND | 0.27 | 0.06 | 0.04 | 2.7 | 2.1 | 0.54 | 2.1 | ND | ND | ND | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 9 | 38 | chloride, 2 mg/L; nitrate, 0.8 mg/L |
| 01LC-MW09DW | 12/16/03 | Lacamas Cr. | 0.08 | 2.1 | ND | ND | 2.7 | 0.86 | 0.24 | 2.2 | 0.06 | ND | 0.02 | 5.8 | 0.029 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 2 | 62 | chloride, 4 mg/L; nitrate, 0.3 mg/L; sulfate, 6 mg/L |
| 01LC-MW05SW | 12/15/03 | Demo Area 3 | 0.06 | 2.1 | ND | 0.17 | 2.7 | 0.82 | 0.55 | 2.2 | 0.14 | ND | ND | 5.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01LC-MW10DW | 12/15/03 | Demo Area 3 | 0.19 | 1.2 | 0.04 | 0.11 | 7.0 | 1.0 | 0.80 | 6.2 | 0.27 | ND | ND | 4.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01LC-MW11SW | 12/15/03 | Demo Area 3 | 0.20 | 2.4 | 1.0 | 0.27 | 4.7 | 6.1 | 8.2 | 4.5 | 0.35 | ND | 0.03 | 19.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01LC-MW12SW | 12/15/03 | Demo Area 3 | 0.26 | 3.5 | 0.05 | 2.3 | 16.3 | 3.0 | 1.1 | 9.6 | 0.20 | ND | ND | 7.0 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01LC-MW13SW | 12/15/03 | Demo Area 3 | 0.17 | 1.3 | ND | 0.38 | 18.7 | 3.5 | 1.2 | 12.8 | 0.35 | 0.11 | 0.03 | 8.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 010LC-MW14W | 12/11/03 | Demo Area 2 | ND | 1.2 | 0.12 | 0.10 | 7.3 | 13.7 | 1.5 | 4.7 | ND | ND | ND | 9.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 010LC-MW15W | 12/11/03 | Demo Area 2 | 0.07 | 1.3 | 0.26 | 0.06 | 6.4 | 14.6 | 3.1 | 6.5 | 0.07 | ND | ND | 15.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 010LC-MW16W | 12/11/03 | Demo Area 2 | ND | 3.7 | ND | ND | 0.84 | 0.71 | 0.16 | 1.3 | 0.07 | ND | ND | 3.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01L4-MW01AW | 12/17/03 | Landfill 4 | ND | 0.32 | 0.14 | ND | 6.2 | 11.4 | 1.2 | 4.3 | 0.14 | ND | ND | 10.5 | 0.028 | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | 4 | nt | nt | nt | nt | nt |
| 01L4-MW01BW | 12/17/03 | Landfill 4 | 0.15 | 0.15 | 0.08 | ND | 2.8 | 0.33 | 0.10 | 1.6 | 0.05 | 0.09 | 0.05 | 1.4 | 0.024 | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01L4-MW02AW | 12/17/03 | Landfill 4 | ND | 0.46 | 0.19 | 0.07 | 12.2 | 18.5 | 0.80 | 10.4 | 0.17 | ND | ND | 21.8 | 0.026 | ND | nt | nt | nt | nt | 3.0 | 27 | ND | ND | ND | 190 | nt | nt | nt | nt | nt |
| 01L4-MW02BW | 12/17/03 | Landfill 4 | ND | 0.20 | 0.11 | 0.04 | 5.6 | 2.8 | 0.87 | 5.7 | ND | ND | ND | 6.0 | 0.029 | Detect: See VOC Table | nt | nt | nt | nt | 3.5 | 97 | ND | ND | ND | 270 | nt | nt | nt | nt | nt |
| 01L4-MW03AW | 12/18/03 | Landfill 4 | 0.05 | ND | 0.03 | ND | 4.3 | 0.63 | 0.11 | 3.3 | 0.05 | ND | ND | 3.7 | 0.027 | ND | nt | nt | nt | nt | ND | 9.8 | ND | ND | ND | 100 | nt | nt | nt | nt | nt |
| 01L4-MW03BW | 12/18/03 | Landfill 4 | ND | 0.27 | 0.10 | 0.09 | 2.7 | 1.8 | 1.4 | 2.4 | 0.11 | ND | ND | 8.4 | 0.030 | ND | nt | nt | nt | nt | ND | 2.9 | ND | ND | ND | 37 | nt | nt | nt | nt | nt |
| 01L4-MW04AW | 12/17/03 | Landfill 4 | ND | 0.37 | 0.13 | 0.10 | 12.2 | 23.8 | 0.72 | 8.4 | 0.06 | ND | ND | 17.1 | 0.029 | ND | nt | nt | nt | nt | ND | 0.52 | ND | ND | ND | 14 | nt | nt | nt | nt | nt |
| 01L4-MW05AW | 12/18/03 | Landfill 4 | ND | 0.37 | 0.15 | 0.98 | 10.4 | 10.8 | 0.82 | 7.0 | ND | ND | ND | 17.6 | 0.035 | Detect: See VOC Table | nt | nt | nt | nt | ND | 3.3 | ND | ND | ND | 41 | nt | nt | nt | nt | nt |
| 01L4-MW07BW | 12/18/03 | Landfill 4 | ND | 0.16 | ND | 0.06 | 2.3 | 0.68 | 0.09 | 1.9 | ND | ND | ND | 3.1 | 0.028 | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01LCMW100DW (field duplicate of 01LC-MW09DW) | 12/16/03 | Lacamas Cr. | 0.18 | 1.8 | 0.04 | ND | 3.0 | 0.3 | 0.08 | 2.2 | 0.07 | 0.10 | 0.05 | 2.2 | 0.028 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | <1.0 | 3 | 64 | chloride, 4 mg/L; nitrate, 0.2 mg/L; sulfate, 7 mg/L |
| 01L4-MW110AW (duplicate of 01L4-MW02BW) | 12/17/03 | Landfill 4 | ND | 0.13 | 0.06 | ND | 1.8 | 2.0 | 0.56 | 1.5 | ND | ND | <0.02 | 4.9 | 0.024 | Detect: See VOC Table | ND | nt | nt | nt | 3.6 | 110 | ND | ND | ND | 270 | nt | nt | nt | nt | nt |
| 01L4-MW115AW (field rinsate; deionized water) | 12/17/03 | Landfill 4 | ND | ND | ND | ND | 0.63 | 0.24 | 0.06 | 0.30 | ND | ND | ND | 2.9 | 0.026 | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 01LC-MW09DWDUP (lab duplicate of 01LC-MW09DW) | 12/16/03 | Lacamas Cr. | 0.06 | 2.2 | ND | ND | 3.0 | 0.53 | 0.2 | 2.1 | 0.08 | ND | ND | 2.9 | 0.026 | nt | nt | ND | ND | ND | nt | nt | nt | nt | nt | nt | < 1.0 | nt | nt | nt | nt |
| Trip Blank | 12/16/03 | Lacamas Cr. | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 01MW204 (Trip Blank) | 12/10/03 | Lacamas Cr. | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.007 | varies | varies | 0.20 mg/L | 0.80 mg/L | 25 ug/L | 0.47 ug/L | 0.47 ug/L | 2.4 ug/L | 1.2 ug/L | 0.94 ug/L | 4 ug/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | | 5 | n/a | | 5 | 50 | n/a | | 15 | n/a | n/a | n/a | n/a | n/a | 500 | 500 | 1000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4.8 | 4.8 | | | | | | | | | | | | | | | | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
DETECT - VOC compound detected; see separate VOC table

**TABLE 5. DISSOLVED METALS AND TOC**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (ug/L) | | | | | | | | | | | | | TOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 01LC-MW01SW | 12/10/03 | Lacamas Cr. | 0.16 | 0.35 | 0.05 | 0.07 | 3.6 | 0.23 | 0.18 | 3.5 | 0.24 | 0.06 | 0.06 | 19.9 | ND | nt |
| 01LC-MW06DW | 12/16/03 | Lacamas Cr. | 0.09 | 0.51 | ND | 0.18 | 1.1 | 0.6 | 0.18 | 3.4 | 0.17 | 0.04 | ND | 23.4 | 0.036 | ND |
| 01LC-MW02SW | 12/10/03 | Lacamas Cr. | 0.31 | 0.96 | 0.21 | 0.19 | 0.85 | 0.25 | 0.39 | 1.2 | 0.26 | 0.24 | 0.22 | 2.3 | ND | nt |
| 01LC-MW07DW | 12/16/03 | Lacamas Cr. | 0.09 | 0.85 | 0.03 | ND | 0.74 | 0.21 | 0.15 | 1.7 | ND | ND | ND | 2.2 | 0.036 | ND |
| 01LC-MW03SW | 12/10/03 | Lacamas Cr. | 0.24 | 0.60 | 0.19 | 0.35 | 3.6 | 0.34 | 0.42 | 2.4 | 0.12 | 0.21 | 0.21 | 2.8 | ND | nt |
| 01LC-MW08DW | 12/16/03 | Lacamas Cr. | 0.05 | 1.0 | ND | ND | 0.55 | 0.23 | 0.16 | 1.1 | ND | ND | ND | 4.9 | 0.041 | ND |
| 01LC-MW04SW | 12/10/03 | Lacamas Cr. | 0.18 | 0.16 | 0.14 | 0.24 | 0.58 | 0.34 | 0.18 | 1.2 | 0.05 | 0.15 | 0.14 | 5.4 | ND | nt |
| 01LC-MW09DW | 12/16/03 | Lacamas Cr. | 0.06 | 1.8 | ND | ND | 0.90 | 0.30 | 0.05 | 1.4 | 0.09 | ND | ND | 11.1 | 0.028 | ND |
| 01LC-MW05SW | 12/15/03 | Demo Area 3 | 0.16 | 2.0 | 0.08 | 0.28 | 1.6 | 0.44 | 0.22 | 2.1 | 0.15 | 0.10 | 0.09 | 3.7 | ND | nt |
| 01LC-MW10DW | 12/15/03 | Demo Area 3 | 0.14 | 1.0 | ND | 0.09 | 1.7 | 0.15 | 0.07 | 2.7 | 0.18 | ND | ND | 2.6 | ND | nt |
| 01LC-MW11SW | 12/15/03 | Demo Area 3 | 0.06 | 1.1 | ND | ND | 1.2 | 0.79 | 0.20 | 2.9 | 0.37 | ND | ND | 3.0 | ND | nt |
| 01LC-MW12SW | 12/15/03 | Demo Area 3 | 0.17 | 3.5 | ND | 0.32 | 1.6 | 0.30 | 0.14 | 2.7 | 0.17 | ND | ND | 3.0 | ND | nt |
| 01LC-MW13SW | 12/15/03 | Demo Area 3 | 0.15 | 1.4 | ND | 0.32 | 1.5 | 0.70 | 0.23 | 3.4 | 0.28 | 0.04 | ND | 4.3 | ND | nt |
| 01LC-MW14SW | 12/11/03 | Demo Area 2 | 0.07 | 0.11 | 0.04 | 0.04 | 0.41 | 0.23 | 0.10 | 0.99 | ND | 0.05 | 0.04 | 1.6 | ND | nt |
| 010LC-MW15W | 12/11/03 | Demo Area 2 | ND | 0.23 | 0.05 | ND | 0.42 | 0.27 | 0.08 | 1.4 | 0.05 | ND | ND | 2.5 | ND | nt |
| 010LC-MW16W | 12/11/03 | Demo Area 2 | 0.07 | 3.7 | 0.03 | 0.06 | 0.52 | 0.10 | 0.06 | 1.1 | 0.07 | 0.05 | 0.03 | 2.5 | ND | nt |
| 01L4-MW01AW | 12/17/03 | Landfill 4 | ND | ND | ND | ND | 0.66 | 0.11 | 0.13 | 1.6 | 0.10 | ND | ND | 4.2 | 0.029 | nt |
| 01L4-MW01BW | 12/17/03 | Landfill 4 | 0.13 | ND | 0.04 | ND | 0.85 | 0.09 | 0.08 | 0.66 | ND | 0.06 | ND | 1.3 | 0.024 | nt |
| 01L4-MW02AW | 12/17/03 | Landfill 4 | ND | ND | 0.04 | ND | 0.90 | 0.15 | ND | 1.9 | 0.09 | ND | ND | 2.5 | 0.027 | nt |
| 01L4-MW02BW | 12/17/03 | Landfill 4 | ND | ND | 0.05 | 0.06 | 0.41 | 0.41 | 0.09 | 1.1 | ND | ND | ND | 5.3 | 0.027 | nt |
| 01L4-MW03AW | 12/18/03 | Landfill 4 | ND | ND | ND | ND | 1.4 | 0.21 | 0.23 | 1.5 | ND | ND | ND | 4.9 | 0.037 | nt |
| 01L4-MW03BW | 12/18/03 | Landfill 4 | ND | ND | ND | 0.35 | 0.70 | 0.43 | 0.19 | 1.7 | 0.08 | ND | ND | 7.7 | 0.025 | nt |
| 01L4-MW04AW | 12/17/03 | Landfill 4 | ND | ND | ND | 0.15 | 1.1 | 0.26 | 0.17 | 3.3 | 0.06 | ND | ND | 7.4 | 0.028 | nt |
| 01L4-MW05AW | 12/18/03 | Landfill 4 | ND | ND | ND | ND | 0.74 | 0.19 | 0.18 | 1.8 | ND | ND | ND | 3.1 | 0.028 | nt |
| 01L4-MW07BW | 12/18/03 | Landfill 4 | ND | 0.14 | ND | ND | 1.0 | 0.51 | ND | 1.5 | ND | ND | ND | 2.2 | 0.026 | nt |
| | | | | | | | | | | | | | | | | |
| 01LCMW100DW (field duplicate of 01LC-MW09DW) | 12/16/03 | Lacamas Cr. | 0.25 | 1.6 | 0.08 | ND | 0.85 | 0.41 | 0.13 | 1.3 | 0.13 | 0.11 | 0.09 | 3.1 | 0.023 | ND |
| 01L4-MW110AW (duplicate of 01L4-MW02BW) | 12/17/03 | Landfill 4 | ND | ND | 0.04 | ND | 0.47 | 0.23 | ND | 1.6 | ND | ND | ND | 3.5 | 0.026 | nt |
| 01L4-MW115AW (field rinsate; deionized water) | 12/17/03 | Landfill 4 | ND | ND | ND | ND | 0.21 | ND | ND | 0.07 | ND | ND | ND | 1.1 | 0.026 | nt |
| 01LC-MW09DW (DISS) D; (lab duplicate of 01LC-MW09DW) | 12/16/03 | Lacamas Cr. | ND | 2 | ND | ND | 0.9 | 0.29 | ND | 1.3 | 0.08 | ND | ND | 3.0 | 0.027 | nt |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.007 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

## TABLE 6. VOLATILE ORGANIC COMPOUNDS
## SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| Sample No. | Sample Date | Sample Location | VOCs (ug/L) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Methylene chloride (see Note) | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodiflouromethane | Tetrachloroethene | Chloroform |
| 01L4-MW02BW | 12/17/03 | Landfill 4 | 27 | 0.5 | 37 | 170 | 180 | 0.6 | ND |
| 01L4-MW05AW | 12/18/03 | Landfill 4 | ND | ND | ND | ND | ND | 0.7 | ND |
| | | | | | | | | | |
| 01LC-MW100DW (duplicate of 01LC-MW09DW) | 12/16/03 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND |
| Trip Blank | 12/16/03 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND |
| 01MW204 (Trip Blank) | 12/10/03 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND |
| 01L4-MW110AW (duplicate of 01L4-MW02BW) | 12/17/03 | Landfill 4 | 27 | 0.6 | 37 | 160 | 180 | 0.7 | ND |
| 01L4-MW115AW (field rinsate; deionized water) | 12/17/03 | Landfill 4 | ND | ND | ND | 0.6 | ND | ND | 7.4 |
| | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 200 | n/a | n/a | n/a |

Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride is a common laboratory solvent and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample No.** | **Date** | **Time** | **Depth to Water*** | **Temp (degrees C)** | **Conductivity (mS/cm)** | **Dissolved Oxygen (mg/L)** | **pH** | **Color and Relative Turbidity** | **Notes** |
| 01LC-MW01SW | 12/10/03 | 1050 | 4.47 | 12.33 | 0.15 | n.m. | 6.59 | clear | |
| 01LC-MW06DW | 12/16/03 | 1115 | 4.44 | 11.65 | 0.119 | n.m. | 6.24 | clear | |
| 01LC-MW02SW | 12/10/03 | 1215 | 4.88 | 12.11 | 0.14 | n.m. | 6.84 | clear | |
| 01LC-MW07DW | 12/16/03 | 1200 | 5.03 | 11.47 | 0.1 | 8.3 | 6.22 | clear | |
| 01LC-MW03SW | 12/10/03 | 1330 | 4.26 | 12.39 | 0.13 | n.m. | 6.9 | clear | |
| 01LC-MW08DW | 12/16/03 | 1235 | 4.26 | 11.02 | 0.113 | 7.8 | 6.19 | clear | |
| 01LC-MW04SW | 12/10/03 | 1430 | 4.23 | 11.56 | 0.11 | n.m. | 7.42 | clear | |
| 01LC-MW09DW | 12/16/03 | 1330 | 4.49 | 10.79 | 0.145 | 8.3 | 6.07 | clear | |
| | | | | | | | | | |
| 01LC-MW05SW | 12/15/03 | 1440 | 7.47 | 11.59 | 0.187 | 6.5 | 6.7 | clear | |
| 01LC-MW10DW | 12/15/03 | 1415 | 0.22 | 11.19 | 0.169 | 3.9 | 6.52 | clear | |
| 01LC-MW11SW | 12/15/03 | 1515 | 5.2 | 11.32 | 0.298 | 6.0 | 6.49 | sl. turbid | |
| 01LC-MW12SW | 12/15/03 | 1615 | 9.11 | 10.63 | 0.355 | 6.3 | 6.48 | clear | |
| 01LC-MW13SW | 12/15/03 | 1335 | 5.10 | 10.94 | 0.692 | 4.0 | 6.52 | clear | |
| | | | | | | | | | |
| 010LC-MW14W | 12/11/03 | 1120 | 5.18 | 10.11 | *2120* | n.m | *10.4* | clear | **See Notes** |
| 010LC-MW15W | 12/11/03 | 1235 | 9.37 | 9.44 | *2720* | n.m | *11.6* | clear | **See Notes** |
| 010LC-MW16W | 12/11/03 | 1315 | 7.29 | 10.22 | *2110* | n.m | *9.82* | clear | **See Notes** |
| | | | | | | | | | |
| 01L4-MW01AW | 12/17/03 | 1615 | 16.48 | 10.66 | 0.057 | 6.3 | 2.69 | sl. turbid, brown | |
| 01L4-MW01BW | 12/17/03 | 1600 | 55.4 | 10.02 | 0.026 | 9.4 | 3.16 | clear | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample No.** | **Date** | **Time** | **Depth to Water*** | **Temp (degrees C)** | **Conductivity (mS/cm)** | **Dissolved Oxygen (mg/L)** | **pH** | **Color and Relative Turbidity** | **Notes** |
| 01L4-MW02AW | 12/17/03 | 1415 | 40.2 | 11.05 | 0.031 | 9.3 | 2.96 | cloudy, red-brown | |
| 01L4-MW02BW | 12/17/03 | 1300 | 29.37 | 11.78 | 0.026 | 5.5 | 2.63 | red-brown, then clear | |
| 01L4-MW03AW | 12/18/03 | 1115 | 28.2 | 10.81 | 0.025 | 8.9 | 3.02 | clear | |
| 01L4-MW03BW | 12/18/03 | 1045 | 25.65 | 10.99 | 0.05 | 7.7 | 2.73 | clear | |
| 01L4-MW04AW | 12/17/03 | 1500 | 26.85 | 10.24 | 0.02 | 7.1 | 3.25 | clear | |
| 01L4-MW05AW | 12/18/03 | 1000 | 23.34 | 10.14 | 0.027 | 8.5 | 2.28 | turbid, red-brown | |
| 01L4-MW07BW | 12/18/03 | 1200 | 39.53 | 9.95 | 0.039 | 8.2 | 3.37 | clear | |

Notes: * = depth in feet measured from top of well PVC casing in December 2004
Water quality parameter meter pH and conductivity probes not functioning correctly for wells LC-MW14, LC-MW15, LC-MW16. Readings for these wells have suspect accuracy.
n.m. = not measured

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well No. | WADOE Tag No. | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Well No. in Previous Reports |
|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | LC-MW04D |
| | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | LC-MW08S |
| | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | LC-MW11S |
| | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | L4-MW07B |

* = screened interval reported on well completion logs
** = depth in feet measured from top of well PVC casing in December 2004
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 1st QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (ug/L) | | | | | | | | | | | | | VOCs | SVOCs | Petroleum Hydrocarbons | | | Ordnance Explosives Compounds (ug/L) | | NG (ug/L) | PETN (ug/L) | Picric Acid (ug/L) | Perchlorate (ug/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 02LC-MW01SW | 3/16/2004 | Lacamas Cr. | ND | 0.2 | ND | 0.02 | 0.77 | 0.26 | 0.04 | 1.1 | ND | ND | ND | 2.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 2 mg/L; sulfate, 1 mg/L |
| 02LC-MW06DW | 3/16/2004 | Lacamas Cr. | ND | 0.43 | ND | 0.44 | 1.2 | 0.37 | 0.11 | 2.7 | 0.17 | ND | 0.01 | 6.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 45 | chloride, 7 mg/L; sulfate, 8 mg/L |
| 02LC-MW02SW | 3/16/2004 | Lacamas Cr. | ND | 0.68 | ND | 0.69 | 0.68 | 0.21 | 0.03 | 0.73 | 0.08 | 0.03 | ND | 1.3 | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L |
| 02LC-MW07DW | 3/16/2004 | Lacamas Cr. | 0.15 | 0.66 | ND | 0.76 | 0.88 | 0.29 | 0.11 | 1.3 | ND | 0.08 | 0.02 | 0.96 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 46 | chloride, 2 mg/L; sulfate, 1 mg/L |
| 02LC-MW03SW | 3/17/2004 | Lacamas Cr. | 0.12 | 0.49 | ND | 0.27 | 0.66 | 0.19 | 0.03 | 0.73 | 0.1 | 0.11 | 0.02 | 1.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 2 mg/L; nitrate, 0.3 mg/L |
| 02LC-MW08DW | 3/17/2004 | Lacamas Cr. | ND | 0.93 | ND | 0.02 | 0.73 | 0.41 | 0.13 | 1.1 | 0.14 | ND | ND | 3.4 | 0.023 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 50 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 2 mg/L |
| 02LC-MW04SW | 3/16/2004 | Lacamas Cr. | ND | 0.13 | 0.04 | 0.04 | 1.7 | 1.1 | 0.29 | 1.4 | 0.15 | ND | 0.01 | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 14 | 38 | chloride, 2 mg/L; nitrate, 0.9 mg/L |
| 02LC-MW09DW | 3/16/2004 | Lacamas Cr. | 0.08 | 1.5 | ND | 0.11 | 1.0 | 0.45 | 0.11 | 1.2 | 0.08 | ND | ND | 5.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 2 | 59 | chloride, 3 mg/L; nitrate, 0.3 mg/L; sulfate, 4 mg/L |
| 02LC-MW05SW | 3/15/2004 | Demo Area 3 | 0.04 | 2 | ND | 0.04 | 1.8 | 0.8 | 0.22 | 0.97 | 0.1 | ND | ND | 2.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW10DW | 3/15/2004 | Demo Area 3 | 0.16 | 0.99 | 0.02 | 0.08 | 1.9 | 1.1 | 0.78 | 1.1 | 0.21 | 0.03 | ND | 3.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW11SW | 3/15/2004 | Demo Area 3 | 0.11 | 2 | 0.13 | 0.2 | 8.7 | 17.6 | 2.3 | 5.3 | 0.16 | 0.02 | ND | 53.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW12SW | 3/15/2004 | Demo Area 3 | 0.22 | 3.7 | 0.03 | 0.22 | 2.2 | 0.97 | 0.32 | 1.4 | 0.20 | 0.04 | 0.03 | 7.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW13SW | 3/15/2004 | Demo Area 3 | 0.09 | 2.1 | ND | 0.05 | 6 | 3.1 | 0.75 | 3.4 | 0.14 | 0.04 | ND | 4.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW14W | 3/11/2004 | Demo Area 2 | 0.1 | 3.2 | 0.25 | 0.16 | 16.3 | 39.3 | 3.6 | 8.6 | 0.06 | 0.03 | 0.02 | 33.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW15W | 3/15/2004 | Demo Area 2 | 0.07 | 1.1 | 0.27 | 0.09 | 5.8 | 19.3 | 4.3 | 4.1 | 0.26 | 0.03 | 0.03 | 40.9 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02LC-MW16W | 3/15/2004 | Demo Area 2 | ND | 3.7 | ND | 0.04 | 1.7 | 0.63 | 0.17 | 1.1 | 0.09 | ND | ND | 2.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 02L4-MW01AW | 3/10/2004 | Landfill 4 | 0.34 | 3.1 | 1.3 | 0.57 | 38.1 | 114 | 10.7 | 26.5 | 0.3 | 0.28 | 0.25 | 95 | ND | ND | nt | nt | nt | nt | ND | ND | nt | nt | nt | 5 | nt | nt | nt | nt | nt |
| 02L4-MW01BW | 3/10/2004 | Landfill 4 | 0.05 | 0.1 | 0.05 | ND | 4.0 | 2.8 | 0.32 | 2.1 | ND | 0.07 | ND | 3.4 | ND | ND | nt | nt | nt | nt | ND | ND | nt | nt | nt | ND | nt | nt | nt | nt | nt |
| 02L4-MW02AW | 3/10/2004 | Landfill 4 | 0.35 | 3.0 | 1.0 | 0.65 | 33.4 | 90.9 | 4.5 | 28.3 | 0.91 | 0.22 | 0.16 | 144 | ND | ND | nt | nt | nt | nt | 2.3 | 19 | nt | nt | nt | 71 | nt | nt | nt | nt | nt |
| 02L4-MW02BW | 3/10/2004 | Landfill 4 | 0.19 | 0.43 | 0.15 | 0.16 | 3.8 | 5.4 | 1.6 | 2.5 | 0.05 | 0.07 | 0.04 | 7.7 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 120 | nt | nt | nt | 300 | nt | nt | nt | nt | nt |
| 02L4-MW03AW | 3/11/2004 | Landfill 4 | 0.05 | 0.04 | 0.04 | ND | 2.2 | 2.8 | 0.25 | 1.3 | ND | ND | ND | 3 | ND | ND | nt | nt | nt | nt | ND | 9.8 | nt | nt | nt | 100 | nt | nt | nt | nt | nt |
| 02L4-MW03BW | 3/11/2004 | Landfill 4 | 0.16 | 0.52 | 0.13 | 0.14 | 4.8 | 3.7 | 1.8 | 2.8 | 0.17 | 0.06 | 0.06 | 13.9 | 0.037 | ND | nt | nt | nt | nt | ND | 4.7 | nt | nt | nt | 36 | nt | nt | nt | nt | nt |
| 02L4-MW04AW | 3/10/2004 | Landfill 4 | 0.04 | 0.38 | 0.11 | 0.07 | 5.7 | 21.1 | 0.54 | 2.6 | 0.27 | 0.02 | 0.03 | 19.3 | ND | ND | nt | nt | nt | nt | ND | 0.72 | nt | nt | nt | 14 | nt | nt | nt | nt | nt |
| 02L4-MW05AW | 3/11/2004 | Landfill 4 | 0.13 | 3.7 | 1.4 | 0.62 | 36.6 | 113 | 7.5 | 26.4 | 0.14 | 0.09 | 0.06 | 177 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4.2 | nt | nt | nt | 39 | nt | nt | nt | nt | laboratory-measured pH: 5.4; |
| 02L4-MW07BW | 3/10/2004 | Landfill 4 | 0.04 | 0.13 | ND | ND | 2.6 | 0.24 | 0.03 | 1.9 | 0.10 | ND | ND | 0.38 | ND | ND | nt | nt | nt | nt | ND | ND | nt | nt | nt | 4 | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02L4MW200W (field duplicate of 02L4-MW05AW) | 3/11/2004 | Landfill 4 | 0.16 | 4.6 | 1.9 | 0.96 | 48.4 | 149 | 10.4 | 34.7 | 0.15 | 0.14 | 0.09 | 291 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4.0 | nt | nt | nt | 39 | nt | nt | nt | nt | laboratory-measured pH: 5.9; |
| 02LCMW220W (field duplicate of 02LC-MW03SW) | 3/17/2004 | Lacamas Creek / Base Boundary | ND | 0.47 | ND | 0.01 | 0.39 | 0.2 | 0.03 | 0.69 | ND | ND | ND | 0.43 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | < 2 | 44 | chloride, 2 mg/L; nitrate, 0.3 mg/L |
| 02LCMW210W (field rinsate; deionized water) | 3/15/2004 | Demo Area 3 | ND | ND | ND | ND | 0.66 | 0.18 | 0.02 | 0.32 | ND | ND | ND | 2.5 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| Trip Blank TB-1 | 3/11/2004 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: See VOC Table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 3/16/2004 | Lacamas Creek | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | varies | varies | 0.20 mg/L | 0.80 mg/L | 25 ug/L | 0.49 ug/L | 0.49 ug/L | 2.5 ug/L | 1.2 ug/L | 0.96 ug/L | 4 ug/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | | | 500 | 500 | 1000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
DETECT - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 5. DISSOLVED METALS AND TOC - 1st QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (ug/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 02LC-MW01SW | 3/16/2004 | Lacamas Cr. | ND | 0.22 | ND | 0.02 | 0.47 | 0.23 | 0.03 | 1.0 | ND | ND | ND | 1.4 | ND | <1.0 |
| 02LC-MW06DW | 3/16/2004 | Lacamas Cr. | ND | 0.5 | ND | 0.03 | 0.56 | 0.25 | 0.03 | 2.3 | 0.18 | ND | 0.01 | 2.7 | 0.036 | <1.0 |
| 02LC-MW02SW | 3/16/2004 | Lacamas Cr. | ND | 0.67 | ND | 0.01 | 0.47 | 0.19 | 0.03 | 0.84 | ND | 0.03 | ND | 3.3 | ND | <1.0 |
| 02LC-MW07DW | 3/16/2004 | Lacamas Cr. | 0.19 | 0.67 | ND | 0.05 | 0.4 | 0.2 | 0.03 | 1.3 | 0.1 | 0.14 | 0.03 | 1.2 | ND | <1.0 |
| 02LC-MW03SW | 3/17/2004 | Lacamas Cr. | 0.16 | 0.42 | ND | 0.04 | 0.33 | 0.17 | 0.04 | 0.74 | 0.07 | 0.14 | 0.02 | 6.0 | ND | <1.0 |
| 02LC-MW08DW | 3/17/2004 | Lacamas Cr. | ND | 0.88 | ND | 0.01 | 0.38 | 0.21 | 0.04 | 0.9 | 0.12 | ND | ND | 0.84 | ND | <1.0 |
| 02LC-MW04SW | 3/16/2004 | Lacamas Cr. | ND | 0.1 | ND | 0.04 | 0.43 | 0.15 | 0.02 | 0.68 | 0.13 | 0.03 | ND | 1.5 | ND | <1.0 |
| 02LC-MW09DW | 3/16/2004 | Lacamas Cr. | ND | 1.5 | ND | 0.01 | 0.6 | 0.27 | 0.03 | 1.1 | 0.1 | ND | ND | 2.2 | ND | <1.0 |
| 02LC-MW05SW | 3/15/2004 | Demo Area 3 | ND | 1.9 | ND | 0.1 | 0.86 | 0.3 | 0.03 | 1.1 | 0.28 | ND | ND | ND | ND | nt |
| 02LC-MW10DW | 3/15/2004 | Demo Area 3 | 0.09 | 0.8 | ND | 0.07 | 0.55 | 0.33 | 0.03 | 1.1 | 0.28 | ND | ND | 2.6 | ND | nt |
| 02LC-MW11SW | 3/15/2004 | Demo Area 3 | ND | 0.67 | ND | 0.26 | 0.6 | 0.93 | 0.02 | 2.5 | 0.44 | ND | ND | 4.1 | ND | nt |
| 02LC-MW12SW | 3/15/2004 | Demo Area 3 | ND | 3.4 | ND | 0.32 | 1.0 | 0.60 | 0.06 | 2.1 | 0.59 | ND | 0.01 | 5.4 | ND | nt |
| 02LC-MW13SW | 3/15/2004 | Demo Area 3 | ND | 1.7 | ND | 0.16 | 1.0 | 0.61 | 0.22 | 3.2 | 0.3 | ND | 0.02 | 2.0 | ND | nt |
| 02LC-MW14W | 3/11/2004 | Demo Area 2 | ND | 0.2 | ND | 0.16 | 1.3 | 2.1 | 0.17 | 1.1 | 0.17 | 0.02 | 0.01 | 4.1 | ND | nt |
| 02LC-MW15W | 3/15/2004 | Demo Area 2 | ND | 0.15 | 0.06 | 0.14 | 1.3 | 2.7 | 0.71 | 1.1 | 0.17 | ND | ND | 3.4 | ND | nt |
| 02LC-MW16W | 3/15/2004 | Demo Area 2 | ND | 3.2 | ND | 0.58 | 0.61 | 0.41 | 0.03 | 2.2 | 0.35 | 0.04 | ND | 1.6 | ND | nt |
| 02L4-MW01AW | 3/10/2004 | Landfill 4 | 0.4 | 0.08 | 0.22 | 0.22 | 1.2 | 0.23 | 0.24 | 2.6 | 0.15 | 0.2 | 0.22 | 4.7 | ND | nt |
| 02L4-MW01BW | 3/10/2004 | Landfill 4 | 0.13 | 0.03 | 0.07 | 0.07 | 1.1 | 0.16 | 0.08 | 1.3 | 0.04 | 0.07 | 0.06 | 0.9 | ND | nt |
| 02L4-MW02AW | 3/10/2004 | Landfill 4 | ND | ND | 0.07 | 0.44 | 1.1 | 0.29 | 0.01 | 2.2 | 0.66 | 0.03 | ND | 3.4 | ND | nt |
| 02L4-MW02BW | 3/10/2004 | Landfill 4 | ND | ND | 0.04 | 0.22 | 0.61 | 0.33 | 0.04 | 0.9 | 0.11 | ND | ND | 4.5 | ND | nt |
| 02L4-MW03AW | 3/11/2004 | Landfill 4 | ND | ND | 0.02 | 0.09 | 0.94 | 0.22 | 0.02 | 0.83 | 0.18 | ND | ND | 0.76 | ND | nt |
| 02L4-MW03BW | 3/11/2004 | Landfill 4 | ND | ND | 0.02 | 0.26 | 1.20 | 1.1 | 0.2 | 1.7 | 0.23 | ND | ND | 4.7 | ND | nt |
| 02L4-MW04AW | 3/10/2004 | Landfill 4 | ND | ND | ND | 0.07 | 1.2 | 0.14 | 0.18 | 1.2 | 0.17 | ND | ND | 2.6 | ND | nt |
| 02L4-MW05AW | 3/11/2004 | Landfill 4 | ND | ND | 0.01 | 0.14 | 0.7 | 0.15 | 0.02 | 1.4 | 0.16 | ND | ND | 3.7 | ND | nt |
| 02L4-MW07BW | 3/10/2004 | Landfill 4 | ND | 0.12 | ND | 0.15 | 1.3 | 0.27 | 0.04 | 1.8 | 0.18 | ND | ND | 1.6 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 02L4MW200W (field duplicate of 02L4-MW05AW) | 3/10/2004 | Landfill 4 | ND | ND | 0.01 | 0.56 | 0.60 | 0.13 | 0.01 | 1.6 | 0.15 | ND | ND | 2.0 | ND | nt |
| 02LCMW220W (field duplicate of 02LC-MW03SW) | 3/17/2004 | Lacamas Creek / Base Boundary | ND | 0.43 | ND | 0.03 | 0.29 | 0.16 | 0.02 | 0.69 | ND | 0.03 | ND | 1.3 | ND | <1.0 |
| 02LCMW210W (field rinsate; deionized water) | 3/15/2004 | Demo Area 3 | ND | ND | ND | 0.13 | 0.41 | 0.08 | 0.01 | 0.05 | 0.07 | ND | ND | 0.7 | ND | nt |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.01 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.007 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE ORGANIC COMPOUNDS - 1st QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (ug/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Methylene chloride (see Note) | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Tetrachloroethene | Trichlorofluoromethane | Chloroform |
| 02L4-MW02BW | 3/10/2004 | Landfill 4 | 30 | ND | 41 | 170 | 190 | 0.7 J | 0.8 J | ND |
| 02L4-MW05AW | 3/11/2004 | Landfill 4 | ND | ND | ND | ND | ND | 0.9 J | ND | ND |
| | | | | | | | | | | |
| 02L4MW200W (field duplicate of 02L4-MW05AW) | 3/10/2004 | Landfill 4 | ND | ND | ND | ND | ND | 0.8 J | | ND |
| Trip Blank TB-1 | 3/11/2004 | Landfill 4 | ND | 2.3 | ND | ND | ND | ND | ND | ND |
| 02LCMW210W (field rinsate; deionized water) | 3/15/2004 | Demo Area 3 | ND | ND | ND | ND | ND | ND | ND | 4.6 |
| | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 200 | n/a | n/a | | n/a |

Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
ug/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride is a common laboratory solvent and may indicate laboratory contamination.

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Temp (degrees C) | Conductivity (mS/cm) | Dissolved Oxygen (mg/L) | pH | Color and Relative Turbidity | Notes |
| 02LC-MW01SW | 3/16/04 | 1033 | 4.90 | 10.51 | 0.093 | 6.4 | 8.39 | clear | |
| 02LC-MW06DW | 3/16/04 | 1035 | 5.29 | 11.38 | 0.118 | 7.1 | 8.70 | clear | |
| 02LC-MW02SW | 3/16/04 | 1236 | 5.35 | 10.70 | 0.101 | 6.4 | 9.26 | clear | |
| 02LC-MW07DW | 3/16/04 | 1138 | 8.21 | 11.36 | 0.101 | 7.0 | 9.33 | clear | |
| 02LC-MW03SW | 3/17/04 | 1025 | 4.80 | 10.67 | 0.095 | 8.0 | 8.93 | clear | |
| 02LC-MW08DW | 3/17/04 | 1026 | 4.80 | 11.01 | 0.115 | 6.9 | 8.46 | clear | |
| 02LC-MW04SW | 3/16/04 | 1436 | 4.68 | 9.67 | 0.092 | 6.4 | 9.11 | clear | |
| 02LC-MW09DW | 3/16/04 | 1515 | 5.50 | 10.51 | 0.124 | 6.9 | 8.52 | clear | |
| | | | | | | | | | |
| 02LC-MW05SW | 3/15/04 | 1325 | 6.67 | 10.61 | 0.198 | 5.4 | 9.55 | clear | |
| 02LC-MW10DW | 3/15/04 | 1357 | 0.18 | 11.08 | 0.164 | 5.4 | 8.83 | clear | **See Notes** |
| 02LC-MW11SW | 3/15/04 | 1240 | 6.09 | 9.72 | 0.428 | 4.0 | 9.34 | clear | |
| 02LC-MW12SW | 3/15/04 | 1445 | 7.30 | 10.62 | 0.367 | 5.1 | 9.75 | clear | |
| 02LC-MW13SW | 3/15/04 | 1441 | 6.82 | 11.15 | 0.451 | 4.3 | 9.61 | clear | |
| | | | | | | | | | |
| 020LC-MW14W | 3/11/04 | 1401 | 5.68 | 8.93 | 0.046 | 5.1 | 8.03 | clear | |
| 020LC-MW15W | 3/15/04 | 1002 | 9.24 | 9.63 | 0.031 | 5.8 | 8.32 | cloudy | |
| 020LC-MW16W | 3/15/04 | 1048 | 7.05 | 10.44 | 0.476 | 3.9 | 10.01 | cloudy | |
| | | | | | | | | | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Temp (degrees C) | Conductivity (mS/cm) | Dissolved Oxygen (mg/L) | pH | Color and Relative Turbidity | Notes |
| 02L4-MW01AW | 3/10/04 | 1111 | 15.98 | 10.39 | 0.048 | 5.8 | 7.86 | slightly cloudy | |
| 02L4-MW01BW | 3/10/04 | 1110 | 12.18 | 10.08 | 0.028 | 7.4 | 8.09 | slightly cloudy | |
| 02L4-MW02AW | 3/10/04 | 1455 | 23.64 | 11.25 | 0.084 | 6.9 | 7.60 | red-brown | |
| 02L4-MW02BW | 3/10/04 | 1457 | 29.58 | 11.70 | 0.028 | 3.0 | 7.50 | red-brown, cloudy | |
| 02L4-MW03AW | 3/11/04 | 1030 | 27.82 | 11.00 | 0.027 | 7.2 | 7.42 | clear | |
| 02L4-MW03BW | 3/11/04 | 1102 | 25.10 | 11.15 | 0.041 | 6.4 | 7.76 | clear | |
| 02L4-MW04AW | 3/10/04 | 1340 | 27.01 | 11.39 | 0.021 | 6.0 | 8.01 | clear | very slow recovery |
| 02L4-MW05AW | 3/11/04 | 1145 | 22.60 | 10.58 | 0.028 | 6.6 | 7.57 | slightly red-brown | |
| 02L4-MW07BW | 3/10/04 | 1020 | 38.84 | 9.92 | 0.042 | 6.0 | 8.16 | clear | |

Notes:
* = depth in feet measured from top of well PVC casing.
Water level in monitoring well LC-MW10D at top rim of steel casing when opened on 3/15/04.
Field parameters of temperature, conductivity, dissolved oxygen and pH measured with a YSI Model 5563 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = screened interval reported on well completion logs
** = depth in feet measured from top of well PVC casing
N/A = not available

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**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 2nd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (ug/L) | | | | | | | | | | | | VOCs | SVOCs | Petroleum Hydrocarbons | | | Ordnance Explosives Compounds (ug/L) | | NG (ug/L) | PETN (ug/L) | Picric Acid (ug/L) | Perchlorate (ug/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 03LCMW01SW | 6/15/04 | Lacamas Cr. | ND | 0.25 | ND | ND | 1.0 | 0.04 | 0.3 | 0.43 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 4 | 44 | chloride, 1 mg/L |
| 03LCMW06DW | 6/15/04 | Lacamas Cr. | 0.63 | 0.64 | 0.19 | 0.10 | 1.5 | 0.42 | 0.31 | 1.2 | 0.18 | 0.19 | 0.19 | 1.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 44 | chloride, 6 mg/L; sulfate, 6 mg/L |
| 03LCMW02SW | 6/15/04 | Lacamas Cr. | ND | 0.7 | ND | ND | 1.0 | ND | ND | 0.25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 45 | chloride, 2 mg/L |
| 03LCMW07DW | 6/15/04 | Lacamas Cr. | 0.15 | 0.7 | ND | 0.28 | 1.3 | 0.15 | 0.07 | 0.8 | ND | ND | ND | 1.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 6 | 44 | chloride, 2 mg/L; sulfate, 1 mg/L; nitrate 0.2 mg/L |
| 03LCMW03SW | 6/16/04 | Lacamas Cr. | ND | 0.49 | ND | ND | 0.89 | ND | ND | 0.18 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 7 | 42 | chloride, 1 mg/L; nitrate, 0.3 mg/L |
| 03LCMW08DW | 6/16/04 | Lacamas Cr. | 0.12 | 1.1 | ND | ND | 1.1 | 0.09 | 0.08 | 0.4 | ND | ND | ND | 0.59 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 2 | 50 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 2 mg/L |
| 03LCMW04SW | 6/16/04 | Lacamas Cr. | ND | 0.51 | 0.16 | 0.05 | 8.0 | 6.1 | 1.5 | 5.4 | ND | ND | ND | 16.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 190 | 38 | chloride, 3 mg/L; nitrate, 1 mg/L |
| 03LCMW09DW | 6/16/04 | Lacamas Cr. | 0.14 | 3.0 | 0.29 | 0.36 | 26.1 | 16.4 | 3.5 | 15.6 | 0.05 | 0.04 | 0.04 | 26.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 400 | 54 | chloride, 4 mg/L; nitrate, 0.4 mg/L; sulfate, 6 mg/L |
| 03LCMW05SW | 6/22/04 | Demo Area 3 | ND | 1.6 | ND | 0.61 | 1.9 | 0.82 | 0.26 | 1.4 | 0.26 | ND | ND | 3.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW10DW | 6/22/04 | Demo Area 3 | ND | 0.89 | 0.01 | 0.34 | 1.8 | 0.63 | 0.39 | 1.3 | 0.28 | ND | ND | 3.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW11SW | 6/22/04 | Demo Area 3 | ND | 1.2 | 0.09 | 0.11 | 2.9 | 5.9 | 1.3 | 2.9 | 0.56 | ND | ND | 12.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW12SW | 6/22/04 | Demo Area 3 | ND | 1.7 | ND | 0.28 | 1.5 | 0.62 | 0.27 | 1.4 | 0.25 | ND | ND | 3.6 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW13SW | 6/22/04 | Demo Area 3 | ND | 3.7 | ND | 0.23 | 1.8 | 0.59 | 0.1 | 1.4 | 1.0 | ND | ND | 2.0 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW14W | 6/16/04 | Demo Area 2 | 0.03 | 1.3 | 0.16 | ND | 6.0 | 10.9 | 2.2 | 2.4 | ND | ND | ND | 9.0 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt |
| 03LCMW15W | 6/16/04 | Demo Area 2 | 0.18 | 0.85 | 0.3 | 0.2 | 6.4 | 13.7 | 4.1 | 4.1 | 0.29 | 0.03 | ND | 56.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03LCMW16W | 6/17/04 | Demo Area 2 | ND | 3.7 | ND | 0.78 | 1.3 | 1.0 | 0.16 | 1.9 | 0.29 | ND | ND | 3.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03L4MW01AW | 6/18/04 | Landfill 4 | ND | 0.65 | 0.38 | 0.66 | 12.2 | 32.2 | 3.5 | 7.9 | ND | ND | ND | 62.8 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 03L4MW01BW | 6/18/04 | Landfill 4 | ND | ND | 0.02 | 0.48 | 2.5 | 0.53 | 0.07 | 0.85 | 0.16 | ND | ND | 2.7 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt |
| 03L4MW02AW | 6/18/04 | Landfill 4 | ND | 0.23 | 0.18 | 0.43 | 7.8 | 12.4 | 0.49 | 5.4 | 0.27 | ND | ND | 14.4 | ND | ND | nt | nt | nt | nt | 3.2 | 26 | ND | ND | nt | 230 | nt | nt | nt | nt | nt |
| 03L4MW02BW | 6/18/04 | Landfill 4 | ND | 1.2 | 0.33 | 0.74 | 8.0 | 8.9 | 2.1 | 4.0 | 0.33 | ND | ND | 14.9 | ND | Detect: See VOC Table | nt | nt | nt | nt | 4.1 | 56 | 8.4 | ND | nt | 380 | nt | nt | nt | nt | nt |
| 03L4MW03AW | 6/17/04 | Landfill 4 | 0.04 | 0.18 | 0.14 | 0.21 | 2.8 | 1.7 | 0.27 | 1.3 | 0.4 | 0.84 | 0.06 | 2.4 | ND | ND | nt | nt | nt | nt | ND | 9.7 | ND | ND | nt | 120 | nt | nt | nt | nt | nt |
| 03L4MW03BW | 6/23/04 | Landfill 4 | 0.25 | 1.2 | 0.57 | 0.12 | 5.7 | 6.6 | 12.8 | 4.6 | 0.41 | 0.03 | ND | 21.6 | 0.037 | ND | nt | nt | nt | nt | 0.46 | 3.1 | ND | ND | nt | 38 | nt | nt | nt | nt | nt |
| 03L4MW04AW | 6/18/04 | Landfill 4 | 0.48 | 0.49 | 0.25 | 0.42 | 14.6 | 41.6 | 1.6 | 7.9 | 0.13 | 0.18 | ND | 55.8 | ND | ND | nt | nt | nt | nt | ND | 0.82 | ND | ND | nt | 14 | nt | nt | nt | nt | nt |
| 03L4MW05AW | 6/18/04 | Landfill 4 | 0.15 | 0.52 | 0.29 | 0.43 | 10.0 | 20.9 | 1.8 | 5.6 | 0.14 | 0.05 | ND | 24.4 | ND | Detect: See VOC Table | nt | nt | nt | nt | 0.75 | 4.8 | ND | ND | nt | 43 | nt | nt | nt | nt | laboratory-measured pH: 5.4 |
| 03L4MW07BW | 6/21/04 | Landfill 4 | ND | 0.20 | ND | 0.04 | 1.7 | 0.18 | 0.02 | 1.4 | 0.23 | ND | ND | 0.95 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 03L4MW17W | 6/21/04 | Landfill 4 | 0.16 | 0.39 | 0.14 | 0.15 | 2.3 | 4.5 | 1.6 | 2.9 | 0.49 | ND | ND | 5.4 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | laboratory-measured pH: 7.5 |
| 03L4MW18W | 6/21/04 | Landfill 4 | ND | 2.5 | 1.3 | 1.2 | **65.7** | 138 | 9.4 | 52.1 | 0.11 | 0.07 | 0.02 | 130 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | laboratory-measured pH: 6.6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03LCMW110W (field duplicate of 03LCMW02SW) | 6/15/2004 | Lacamas Creek / Base Boundary | ND | 0.6 | ND | ND | 1.0 | 0.42 | ND | 0.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 44 | chloride, 2 mg/L |
| 03L4MW115SW (field duplicate of 03L4MW03AW) | 6/17/2004 | Landfill 4 | 0.37 | 0.08 | 0.05 | 0.08 | 2.6 | 1.4 | 0.16 | 1.2 | 0.15 | 0.1 | ND | 2.4 | ND | ND | ND | ND | ND | nt | ND | 9.1 | ND | ND | ND | 120 | < 1.0 | <1.0 | < 2 | 44 | nt |
| 03LCMW120SW (field duplicate of 03LCMW05SW) | 6/22/2004 | Demo Area 3 | ND | 1.7 | ND | 0.08 | 1.7 | 0.2 | 0.53 | 1.2 | 0.25 | ND | ND | 2.6 | ND | nt | nt | ND | ND | nt | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | < 2 | 44 | nt |
| 03LCMW220W (field rinsate; deionized water) | 6/22/2004 | Demo Area 3 | ND | ND | ND | 0.01 | 0.92 | 0.24 | 0.01 | 0.34 | 0.12 | ND | ND | 1.3 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | ND |
| Trip Blank TB-1W | 6/15/2004 | Lacamas Creek | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: See VOC Table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2W | 6/21/2004 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: See VOC Table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.01 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | varies | varies | 0.20 mg/L | 0.82 mg/L | 25 ug/L | 0.49 ug/L | 0.49 ug/L | 2.5 ug/L | 1.2 ug/L | 0.96 ug/L | 4 ug/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | | | 500 | 500 | 1000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
DETECT - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

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**TABLE 5. DISSOLVED METALS AND TOC - 2nd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| | | | Dissolved Metals - field filtered (ug/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Sample Date | Sample Location | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 03LCMW01SW | 6/15/04 | Lacamas Cr. | 0.03 | 0.25 | ND | ND | 0.94 | 0.1 | 0.05 | 0.5 | ND | ND | ND | ND | ND | <1.0 |
| 03LCMW06DW | 6/15/04 | Lacamas Cr. | 0.58 | 0.64 | 0.15 | 0.08 | 1.1 | 0.12 | 0.18 | 0.87 | 0.22 | 0.16 | 0.18 | ND | ND | <1.0 |
| 03LCMW02SW | 6/15/04 | Lacamas Cr. | ND | 0.64 | ND | ND | 1.2 | 0.21 | ND | 0.61 | ND | ND | ND | ND | ND | <1.0 |
| 03LCMW07DW | 6/15/04 | Lacamas Cr. | 0.1 | 0.78 | ND | ND | 0.96 | ND | 0.02 | 0.85 | ND | ND | ND | ND | ND | <1.0 |
| 03LCMW03SW | 6/16/04 | Lacamas Cr. | ND | 0.49 | ND | ND | 0.8 | ND | ND | 0.3 | ND | ND | ND | ND | ND | <1.0 |
| 03LCMW08DW | 6/16/04 | Lacamas Cr. | 0.13 | 1.0 | ND | ND | 0.91 | ND | 0.11 | 0.41 | 0.04 | ND | ND | ND | ND | <1.0 |
| 03LCMW04SW | 6/16/04 | Lacamas Cr. | ND | 0.09 | ND | ND | 0.94 | 0.14 | ND | 0.33 | ND | ND | ND | 0.38 | ND | <1.0 |
| 03LCMW09DW | 6/16/04 | Lacamas Cr. | 0.04 | 1.6 | ND | ND | 1.1 | ND | ND | 1.1 | ND | ND | ND | 1.5 | ND | <1.0 |
| 03LCMW05SW | 6/22/04 | Demo Area 3 | ND | 2.1 | ND | ND | 1.3 | 0.26 | 0.01 | 1.1 | 0.26 | ND | ND | 1.2 | ND | nt |
| 03LCMW10DW | 6/22/04 | Demo Area 3 | 0.14 | 0.84 | ND | ND | 0.87 | 0.27 | 0.01 | 0.99 | 0.34 | ND | ND | 2.3 | ND | nt |
| 03LCMW11SW | 6/22/04 | Demo Area 3 | ND | 0.76 | ND | ND | 0.9 | 0.62 | 0.02 | 2.5 | 0.43 | ND | ND | 4.5 | ND | nt |
| 03LCMW12SW | 6/22/04 | Demo Area 3 | ND | 1.8 | ND | ND | 1.1 | 0.54 | 0.04 | 1.1 | 0.32 | ND | ND | 2.0 | ND | nt |
| 03LCMW13SW | 6/22/04 | Demo Area 3 | ND | 3.2 | ND | ND | 1.4 | 0.43 | 0.03 | 1.4 | 0.66 | ND | ND | 1.5 | ND | nt |
| 03LCMW14W | 6/16/04 | Demo Area 2 | ND | 0.15 | ND | ND | 1.2 | 2.1 | 0.13 | 0.51 | ND | ND | ND | 1.7 | ND | nt |
| 03LCMW15W | 6/16/04 | Demo Area 2 | 0.09 | ND | 0.04 | ND | 0.8 | 0.25 | ND | 0.61 | 0.05 | 0.04 | ND | 2.5 | ND | nt |
| 03LCMW16W | 6/17/04 | Demo Area 2 | ND | 3.6 | ND | ND | 0.88 | 0.14 | 0.01 | 1.8 | 0.29 | ND | ND | 2.2 | ND | nt |
| 03L4MW01AW | 6/18/04 | Landfill 4 | ND | ND | ND | ND | 1.2 | 0.16 | 0.03 | 1.6 | 0.28 | ND | ND | 3.7 | ND | nt |
| 03L4MW01BW | 6/18/04 | Landfill 4 | ND | ND | 0.01 | ND | 1.3 | 0.09 | 0.01 | 0.61 | ND | ND | ND | 1.4 | ND | nt |
| 03L4MW02AW | 6/18/04 | Landfill 4 | ND | ND | 0.06 | ND | 1.9 | 0.15 | 0.01 | 2.0 | 0.41 | ND | ND | 2.1 | ND | nt |
| 03L4MW02BW | 6/18/04 | Landfill 4 | ND | 0.97 | 0.24 | 0.13 | 3.5 | 0.15 | 0.05 | 1.9 | 0.23 | ND | ND | 9.4 | ND | nt |
| 03L4MW03AW | 6/17/04 | Landfill 4 | ND | ND | 0.02 | ND | 1.1 | 0.08 | 0.01 | 1.2 | 0.13 | ND | ND | 1.6 | ND | nt |
| 03L4MW03BW | 6/23/04 | Landfill 4 | 0.13 | 0.05 | 0.04 | ND | 1.5 | 0.28 | 0.04 | 4.7 | 0.33 | ND | ND | 3.7 | ND | nt |
| 03L4MW04AW | 6/18/04 | Landfill 4 | ND | ND | 0.02 | 0.06 | 1.2 | 0.17 | 0.11 | 3.7 | 0.2 | ND | ND | 3.0 | ND | nt |
| 03L4MW05AW | 6/18/04 | Landfill 4 | ND | ND | 0.02 | ND | 1.2 | 0.17 | 0.01 | 2.2 | 0.21 | ND | ND | 2.7 | ND | nt |
| 03L4MW07BW | 6/21/04 | Landfill 4 | ND | 0.21 | ND | ND | 1.4 | 0.09 | ND | 1.8 | 0.21 | ND | ND | 0.92 | ND | nt |
| 03L4MW17W | 6/21/04 | Landfill 4 | 0.13 | 0.25 | ND | ND | 0.91 | 1.2 | 0.05 | 1.7 | 0.59 | ND | ND | 0.85 | ND | nt |
| 03L4MW18W | 6/21/04 | Landfill 4 | ND | 0.06 | ND | ND | 1.2 | 0.09 | 0.03 | 2.6 | 0.11 | ND | ND | 1.0 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 03LCMW110W (field duplicate of 03LCMW02SW) | 6/15/2004 | Lacamas Creek / Base Boundary | ND | 0.72 | ND | ND | 0.84 | 0.17 | ND | 0.23 | ND | ND | ND | 0.35 | ND | <1.0 |
| 03L4MW115SW (field duplicate of 03L4MW03AW) | 6/17/2004 | Landfill 4 | ND | ND | 0.02 | ND | 1.1 | 0.11 | ND | 1.0 | 0.16 | ND | ND | 1.2 | ND | <1.0 |
| 03LCMW120SW (field duplicate of 03LCMW05SW) | 6/22/2004 | Demo Area 3 | 0.54 | 2.0 | ND | ND | 1.5 | 0.24 | 0.01 | 1.5 | 0.36 | 0.15 | ND | 1.8 | ND | nt |
| 03LCMW220W (field rinsate; deionized water) | 6/22/2004 | Demo Area 3 | ND | ND | ND | ND | 0.68 | 0.12 | 0.01 | 0.10 | 0.08 | ND | ND | 1.3 | ND | <1.0 |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.01 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.007 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

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**TABLE 6. VOLATILE ORGANIC COMPOUNDS - 2nd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (ug/L) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Methylene chloride (see Note) | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Tetrachloroethene | Trichlorofluoromethane | 2-Butanone | Acetone (see Note) | Chloroform |
| 02L4-MW02BW | 6/18/2004 | Landfill 4 | 27 | ND | 36 | 150 | 170 | 0.7 J | 0.6 J | ND | 59 | ND |
| 02L4-MW05AW | 6/18/2004 | Landfill 4 | ND | ND | ND | ND | ND | 0.8 J | ND | ND | ND | ND |
| 02L4-MW17W | 6/21/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 | ND |
| 02L4-MW18W | 6/21/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 1.8 | ND |
| 03LCMW220W (field rinsate; deionized water) | 6/22/2004 | Demo Area 3 | ND | ND | ND | ND | ND | 0.8 J | ND | 0.8 J | 2.3 | 10 |
| Trip Blank TB-1 | 6/15/2004 | Base Boundary | ND | 0.9J | ND | ND | ND | ND | ND | ND | ND | ND |
| Trip Blank TB-2 | 6/21/2004 | Landfill 4 | ND | 2.2 | ND | ND | ND | ND | ND | ND | 4.2 | ND |
| | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | 5.0 | 1.0 |
| | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 200 | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
ug/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

## *DRAFT* TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample No.** | **Date** | **Time** | **Depth to Water in Feet*** | **Temp (degrees C)** | **Conductivity (µS/cm)** | **Dissolved Oxygen (mg/L)** | **pH** | **Color and Relative Turbidity** | **Notes** |
| 03LCMW01SW | 6/15/04 | 1115 | 4.91 | 12.0 | 81 | - | 6.81 | clear | |
| 03LCMW06DW | 6/15/04 | 1220 | 5.22 | 12.8 | 116 | - | 6.82 | clear | |
| 03LCMW02SW | 6/15/04 | 1437 | 5.45 | 12.0 | 84 | - | 6.90 | clear | |
| 03LCMW07DW | 6/15/04 | 1435 | 5.95 | 13.4 | 88 | - | 6.87 | clear | |
| 03LCMW03SW | 6/16/04 | 1015 | 4.93 | 12.2 | 81 | - | 7.48 | clear | |
| 03LCMW08DW | 6/16/04 | 1016 | 5.15 | 11.9 | 96 | - | 7.46 | clear | |
| 03LCMW04SW | 6/16/04 | 1338 | 4.95 | 12.1 | 83 | - | 7.46 | sl.cloudy | |
| 03LCMW09DW | 6/16/04 | 1405 | 5.73 | 12.7 | 118 | - | 7.48 | clear | |
| | | | | | | | | | |
| 03LCMW05SW | 6/22/04 | 1332 | 6.95 | 12.1 | 155 | - | - | clear | |
| 03LCMW10DW | 6/22/04 | 1400 | 0 | 12.1 | 138 | - | - | clear | **See Notes** |
| 03LCMW11SW | 6/22/04 | 1255 | 7.29 | 11.3 | 315 | - | - | sl.cloudy | Pumped dry during sampling |
| 03LCMW12SW | 6/22/04 | 1440 | 6.89 | 12.5 | 255 | - | - | clear | |
| 03LCMW13SW | 6/22/04 | 1313 | 7.24 | 11.9 | 273 | - | - | clear | |
| | | | | | | | | | |
| 03LCMW14W | 6/16/04 | 1520 | 5.29 | 11.8 | 33 | - | 7.09 | cloudy | |
| 03LCMW15W | 6/17/04 | 1044 | 9.24 | 11.6 | 18 | - | 7.10 | cloudy | |
| 03LCMW16W | 6/17/04 | 1120 | 7.10 | 12.0 | 357 | - | 7.09 | clear | |
| | | | | | | | | | |

## *DRAFT* TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Temp (degrees C) | Conductivity (µS/cm) | Dissolved Oxygen (mg/L) | pH | Color and Relative Turbidity | Notes |
| 03L4MW01AW | 6/18/04 | 1019 | 16.45 | 11.8 | 69 | - | - | cloudy, brown | |
| 03L4MW01BW | 6/18/04 | 1020 | 13.11 | 11.1 | 16 | - | - | clear | |
| 03L4MW02AW | 6/18/04 | 1152 | 25.60 | 12.9 | 32 | - | - | sl. cloudy | |
| 03L4MW02BW | 6/18/04 | 1150 | 30.54 | 13.0 | 62 | - | - | cloudy | |
| 03L4MW03AW | 6/17/04 | 1406 | 27.86 | 12.5 | 14 | - | - | sl. cloudy | |
| 03L4MW03BW | 6/23/04 | 1145 | 26.64 | 12.3 | 37 | - | - | cloudy | Pumped dry during sampling |
| 03L4MW04AW | 6/18/04 | 1438 | 27.50 | 15.3 | 13 | - | - | sl. cloudy | Very slow recovery |
| 03L4MW05AW | 6/18/04 | 1410 | 23.86 | 11.6 | 16 | - | - | slightly red-brown | |
| 03L4MW07BW | 6/21/04 | 1115 | 39.60 | 11.3 | 25 | - | - | clear | |
| 03L4MW17W | 6/21/04 | 1240 | 10.48 | 15.0 | 205 | - | - | clear | |
| 03L4MW18W | 6/21/04 | 1205 | 11.63 | 12.3 | 119 | - | - | silty, brown | |

Notes:
* = depth in feet measured from top of well PVC casing.
- = parameter not measured in field
Water level in monitoring well LC-MW10D at top rim of steel casing when opened on 6/22/04.
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Sample Notes and Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | LC-MW04D |
| | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | LC-MW08S |
| | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | LC-MW11S |
| | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | L4-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | L4-MW18 |

Notes:
* = screened interval reported on well completion logs
** = depth in feet measured from top of well PVC casing
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 3rd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (ug/L) | | | | | | | | | | | | VOCs | SVOCs | Petroleum Hydrocarbons | | | Ordnance Explosives Compounds (ug/L) | | NG (ug/L) | PETN (ug/L) | Picric Acid (ug/L) | Perchlorate (ug/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 04LCMW01SW | 9/15/04 | Lacamas Cr. | 0.29 | 0.23 | 0.03 | 0.10 | 1.3 | 0.86 | 0.27 | 0.97 | ND | 0.09 | 0.01 | 2.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 14 | 47 | chloride, 1 mg/L |
| 04LCMW01DW | 9/15/04 | Lacamas Cr. | ND | 0.4 | ND | 0.08 | 1.2 | 0.33 | 0.09 | 1.0 | 0.11 | 0.03 | 0.01 | 3.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 46 | chloride, 6 mg/L; sulfate, 7 mg/L; laboratory-measured pH, 7.1 |
| 04LCMW02SW | 9/15/04 | Lacamas Cr. | ND | 0.55 | ND | 0.1 | 0.7 | 0.23 | 0.06 | 0.51 | ND | 0.03 | ND | 0.76 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 (false positive; see Report) | < 1.0 | < 1.0 | < 2 | 44 | chloride, 2 mg/L |
| 04LCMW02DW | 9/16/04 | Lacamas Cr. | 0.28 | 0.66 | ND | 0.21 | 2.8 | 0.28 | 0.06 | 1.9 | ND | 0.08 | 0.01 | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 2 | 46 | chloride, 2 mg/L; sulfate, 1 mg/L; nitrate 0.2 mg/L |
| 04LCMW03SW | 9/20/04 | Lacamas Cr. | ND | 0.44 | ND | 0.13 | 1.1 | 0.16 | 0.04 | 0.7 | ND | 0.03 | ND | 0.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 44 | chloride, 2 mg/L; nitrate, 0.2 mg/L |
| 04LCMW03DW | 9/20/04 | Lacamas Cr. | ND | 0.91 | ND | 0.25 | 1.1 | 0.21 | 0.05 | 0.77 | ND | ND | ND | 0.91 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 50 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 2 mg/L |
| 04LCMW04SW | 9/20/04 | Lacamas Cr. | 0.14 | 0.16 | 0.06 | 0.3 | 3.0 | 1.8 | 0.43 | 2.1 | ND | 0.07 | 0.02 | 4.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 26 | 40 | chloride, 2 mg/L; nitrate, 0.8 mg/L |
| 04LCMW04DW | 9/20/04 | Lacamas Cr. | 0.66 | 1.4 | ND | 0.15 | 2.4 | 0.64 | 0.15 | 1.5 | ND | 0.19 | 0.03 | 1.9 | ND | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 6 | 55 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 3 mg/L |
| 04LCMW05SW | 9/14/04 | Demo Area 3 | ND | 1.5 | ND | 0.06 | 2.1 | 0.65 | 0.18 | 1.6 | 0.11 | 0.05 | ND | 1.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW05DW | 9/14/04 | Demo Area 3 | 0.27 | 1.3 | 0.11 | 0.23 | 3.8 | 1.3 | 2.8 | 2.5 | 0.28 | 0.13 | 0.03 | 13.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW06SW | 9/14/04 | Demo Area 3 | 0.32 | 1.1 | 0.12 | 0.14 | 4.5 | 7.8 | 2.2 | 3.9 | 0.23 | 0.11 | 0.03 | 40.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW07SW | 9/14/04 | Demo Area 3 | 0.12 | 4.2 | 0.2 | 0.23 | 11.3 | 19.0 | 2.3 | 6.8 | 0.31 | 0.1 | 0.03 | 17.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW08SW | 9/14/04 | Demo Area 3 | 0.64 | 1.7 | ND | 0.12 | 1.3 | 0.58 | 0.1 | 1.1 | 0.2 | 0.22 | 0.04 | 1.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW09SW | 9/15/04 | Demo Area 2 | ND | 2.0 | 0.43 | 0.27 | 10.6 | 20.4 | 4.2 | 5.2 | 0.34 | 0.04 | 0.02 | 26.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04LCMW10SW | 9/15/04 | Demo Area 2 | ND | 2.6 | 0.76 | 0.35 | 13.2 | 36.1 | 7.8 | 9.7 | 0.62 | 0.06 | 0.05 | 42.6 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | laboratory-measured pH: 5.7 |
| 04LCMW11SW | 9/15/04 | Demo Area 2 | 0.1 | 4.4 | 0.03 | 0.33 | 2.9 | 7.8 | 1.0 | 3.3 | 0.36 | 0.07 | ND | 5.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04L4MW01AW | 9/21/04 | Landfill 4 | 0.26 | 0.21 | 0.12 | 0.17 | 5.2 | 10.1 | 0.84 | 3.4 | 0.16 | 0.1 | 0.02 | 41.1 | ND | ND | nt | nt | nt | ND | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 04L4MW01BW | 9/21/04 | Landfill 4 | ND | 0.15 | 0.13 | 0.3 | 7.7 | 9.6 | 1.1 | 4.4 | ND | 0.13 | ND | 9.4 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 04L4MW02AW | 9/21/04 | Landfill 4 | ND | 0.31 | 0.24 | 0.29 | 8.5 | 17.2 | 0.69 | 6.6 | 0.25 | 0.03 | 0.1 | 39.9 | ND | ND | nt | nt | nt | nt | 3.3 | 30 | ND | ND | nt | 220 | nt | nt | nt | nt | nt |
| 04L4MW02BW | 9/21/04 | Landfill 4 | ND | 0.6 | 0.23 | 0.45 | 1.6 | 2.4 | 0.24 | 2.2 | 1.9 | ND | ND | 7.6 | ND | Detect: See VOC Table | nt | nt | nt | nt | 3.1 | 72 | ND | ND | nt | 320 | nt | nt | nt | nt | nt |
| 04L4MW03AW | 9/21/04 | Landfill 4 | ND | 0.05 | 0.08 | 0.42 | 3.6 | 5.9 | 0.62 | 2.0 | ND | 0.03 | 0.01 | 6.9 | ND | ND | nt | nt | nt | nt | ND | 10 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 04L4MW03BW | 9/21/04 | Landfill 4 | ND | 1.2 | 0.07 | 0.55 | 5.6 | 2.3 | 0.74 | 3.6 | 0.25 | 0.03 | 0.01 | 39.9 | 0.037 | ND | nt | nt | nt | nt | ND | 2 | ND | ND | nt | 39 | nt | nt | nt | nt | nt |
| 04L4MW04AW | 9/21/04 | Landfill 4 | ND | 0.26 | 0.15 | 0.46 | 8.4 | 24.5 | 0.64 | 4.2 | ND | 0.05 | 0.04 | 22.8 | ND | ND | nt | nt | nt | nt | ND | 0.68 | ND | ND | nt | 13 | nt | nt | nt | nt | nt |
| 04L4MW05AW | 9/21/04 | Landfill 4 | ND | ND | 0.05 | 0.15 | 3.3 | 2.6 | 0.27 | 1.8 | ND | 0.03 | ND | 4.3 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 3.8 | ND | ND | nt | 38 | nt | nt | nt | nt | nt |
| 04L4MW07BW | 9/16/04 | Landfill 4 | ND | 0.18 | 0.03 | 0.16 | 4.1 | 3.2 | 0.06 | 2.9 | ND | ND | ND | 3.8 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 04L4MW17W | 9/16/04 | Landfill 4 | ND | 0.58 | 0.03 | 0.09 | 1.3 | 2.6 | 0.77 | 2.5 | 0.22 | ND | 0.01 | 2.8 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 04L4MW18W | 9/16/04 | Landfill 4 | ND | 0.93 | 0.47 | 0.36 | 24.8 | 49.1 | 3.8 | 19.5 | 0.24 | 0.06 | 0.04 | 33.8 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04LCMW125SW (field duplicate of 04LCMW02DW) | 9/16/04 | Lacamas Cr. | 0.08 | 0.62 | ND | 0.3 | 2.5 | 43.0 | 1.6 | 1.7 | ND | 0.04 | ND | 24.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 2 | 45 | chloride, 2 mg/L; sulfate, 1 mg/L |
| 04LCMW130SW (field duplicate of 04LCMW05DW) | 9/14/04 | Demo Area 3 | 0.17 | 1.4 | 0.13 | 0.25 | 3.6 | 1.3 | 3.6 | 2.3 | 0.36 | 0.13 | 0.03 | 14.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 04L4MW135SW (field duplicate of 04L4MW07BW) | 9/16/04 | Landfill 4 | ND | 0.25 | 0.02 | 0.09 | 4.7 | 3.7 | 0.24 | 3.1 | ND | ND | ND | 4.6 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 04LCMW03DW (MS/MSD) (duplicate of 04LCMW03DW) | 9/20/04 | Lacamas Cr. | ND | 0.91 | ND | 0.25 | 1.1 | 0.21 | 0.05 | 0.77 | ND | ND | ND | 0.91 | ND | nt | nt | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | < 2 | 50 | nt |
| 04L4MW230W (field rinsate; deionized water) | 9/21/04 | Landfill 4 | ND | ND | ND | 0.26 | 0.83 | 0.26 | 0.06 | 0.27 | ND | 0.06 | ND | 1.1 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | < 2 | 3 | ND |
| Trip Blank TB-1W | 9/15/04 | Lacamas Creek | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2W | 9/16/04 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: See VOC Table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.01 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | varies | varies | 0.20 mg/L | 0.82 mg/L | 25 ug/L | 0.49 ug/L | 0.49 ug/L | 2.5 ug/L | 1.2 ug/L | 0.96 ug/L | 1.0 ug/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | | | 500 | 500 | 1000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND TOC - 3rd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (ug/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 04LCMW01SW | 9/15/04 | Lacamas Cr. | ND | 0.21 | ND | 0.05 | 0.51 | 0.18 | 0.05 | 0.7 | ND | ND | ND | 1.7 | ND | <1.0 |
| 04LCMW01DW | 9/15/04 | Lacamas Cr. | ND | 0.37 | ND | 0.06 | 0.64 | 0.34 | 0.16 | 1.3 | ND | ND | 0.02 | 2.0 | ND | <1.0 |
| 04LCMW02SW | 9/15/04 | Lacamas Cr. | ND | 0.5 | ND | 0.13 | 0.44 | 0.18 | 0.07 | 0.56 | ND | 0.03 | ND | 1.4 | ND | <1.0 |
| 04LCMW02DW | 9/15/04 | Lacamas Cr. | ND | 0.72 | ND | 0.1 | 1.2 | 0.19 | 0.06 | 2.4 | ND | ND | ND | 1.0 | ND | <1.0 |
| 04LCMW03SW | 9/20/04 | Lacamas Cr. | ND | 0.45 | ND | 0.48 | 0.88 | 0.16 | 0.05 | 0.73 | ND | ND | ND | 3.1 | ND | <1.0 |
| 04LCMW03DW | 9/20/04 | Lacamas Cr. | ND | 0.9 | ND | 0.14 | 0.87 | 0.16 | 0.03 | 0.84 | 0.11 | ND | ND | 1.4 | ND | <1.0 |
| 04LCMW04SW | 9/20/04 | Lacamas Cr. | 0.09 | 0.12 | ND | 0.09 | 0.89 | 0.17 | 0.03 | 0.59 | ND | 0.05 | ND | 2.5 | ND | <1.0 |
| 04LCMW04DW | 9/20/04 | Lacamas Cr. | 0.63 | 1.4 | 0.02 | 0.04 | 0.9 | 0.29 | 0.05 | 1.2 | ND | 0.18 | 0.02 | 3.2 | ND | <1.0 |
| 04LCMW05SW | 9/14/04 | Demo Area 3 | 0.37 | 1.7 | ND | 0.07 | 1.0 | 0.31 | 0.07 | 1.3 | ND | 0.09 | 0.01 | 1.3 | ND | nt |
| 04LCMW05DW | 9/14/04 | Demo Area 3 | 0.3 | 0.77 | ND | 0.17 | 0.92 | 0.42 | 0.08 | 1.6 | 0.25 | 0.07 | 0.02 | 12.1 | ND | nt |
| 04LCMW06SW | 9/14/04 | Demo Area 3 | 0.84 | 0.66 | ND | 0.08 | 0.56 | 0.77 | 0.08 | 1.6 | 0.25 | 0.22 | 0.03 | 3.3 | ND | nt |
| 04LCMW07SW | 9/14/04 | Demo Area 3 | 0.24 | 4.0 | ND | 0.07 | 1.3 | 0.39 | 0.06 | 1.1 | 0.25 | 0.08 | 0.01 | 1.2 | ND | nt |
| 04LCMW08SW | 9/14/04 | Demo Area 3 | 0.7 | 1.5 | ND | 0.08 | 0.8 | 0.41 | 0.06 | 0.97 | ND | 0.21 | 0.04 | 1.2 | ND | nt |
| 04LCMW09SW | 9/15/04 | Demo Area 2 | 0.25 | 0.05 | ND | 0.11 | 0.56 | 0.66 | 0.07 | 0.77 | ND | 0.07 | ND | 3.9 | ND | nt |
| 04LCMW10SW | 9/15/04 | Demo Area 2 | 0.08 | 0.22 | 0.03 | 0.31 | 1.0 | 1.7 | 0.32 | 0.8 | ND | 0.04 | ND | 3.5 | ND | nt |
| 04LCMW11SW | 9/15/04 | Demo Area 2 | ND | 3.8 | ND | 0.06 | 0.73 | 0.37 | 0.07 | 2.0 | 0.18 | ND | ND | 3.3 | ND | nt |
| 04L4MW01AW | 9/21/04 | Landfill 4 | ND | ND | 0.03 | 0.22 | 1.0 | 0.18 | 0.06 | 1.6 | ND | ND | ND | 3.2 | ND | nt |
| 04L4MW01BW | 9/21/04 | Landfill 4 | ND | ND | ND | 0.17 | 4.9 | 0.29 | 0.03 | 0.83 | ND | ND | ND | 3.1 | ND | nt |
| 04L4MW02AW | 9/21/04 | Landfill 4 | ND | ND | 0.04 | 0.18 | 1.4 | 0.35 | 0.08 | 1.7 | 0.11 | ND | ND | 3.2 | ND | nt |
| 04L4MW02BW | 9/21/04 | Landfill 4 | ND | 0.6 | 0.28 | 0.28 | 1.6 | 0.39 | 0.16 | 2.2 | 2.0 | ND | ND | 14.0 | ND | nt |
| 04L4MW03AW | 9/21/04 | Landfill 4 | ND | ND | 0.03 | 0.04 | 1.3 | 0.2 | 0.12 | 1.2 | ND | ND | ND | 3.0 | ND | nt |
| 04L4MW03BW | 9/21/04 | Landfill 4 | ND | ND | ND | 0.19 | 2.1 | 0.41 | 0.15 | 2.3 | ND | ND | 0.01 | 3.7 | ND | nt |
| 04L4MW04AW | 9/21/04 | Landfill 4 | 0.27 | ND | ND | 0.1 | 2.0 | 5.0 | 0.15 | 2 | ND | 0.07 | ND | 3.6 | ND | nt |
| 04L4MW05AW | 9/21/04 | Landfill 4 | ND | ND | 0.02 | 0.11 | 1.6 | 0.25 | 0.04 | 1.2 | ND | 0.03 | 0.01 | 4.3 | ND | nt |
| 04L4MW07BW | 9/16/04 | Landfill 4 | ND | 0.11 | ND | 0.12 | 1.3 | 0.26 | 0.06 | 2.1 | ND | ND | ND | 0.86 | ND | nt |
| 04L4MW17W | 9/16/04 | Landfill 4 | ND | 0.88 | ND | 0.08 | 0.72 | 0.46 | 0.14 | 2.3 | 0.18 | ND | ND | 1.3 | ND | nt |
| 04L4MW18W | 9/16/04 | Landfill 4 | ND | 0.05 | ND | 0.07 | 1.4 | 0.19 | 0.04 | 1.9 | ND | ND | ND | 0.8 | ND | nt |
| 04LCMW125SW (field duplicate of 04LCMW02DW) | 9/16/04 | Lacamas Cr. | ND | 0.65 | ND | 0.15 | 1.1 | 0.23 | 0.07 | 1.9 | ND | ND | ND | 1.80 | ND | <1.0 |
| 04LCMW130SW (field duplicate of 04LCMW05DW) | 9/14/04 | Demo Area 3 | 0.17 | 0.82 | ND | 0.18 | 0.82 | 0.54 | 0.1 | 1.2 | 0.3 | 0.03 | 0.01 | 11.50 | ND | nt |
| 04L4MW135SW (field duplicate of 04L4MW07BW) | 9/16/04 | Landfill 4 | ND | 0.16 | ND | 0.1 | 1.1 | 0.19 | 0.11 | 1.8 | ND | ND | ND | 0.91 | ND | nt |
| 04LCMW03DW (MS/MSD) (duplicate of 04LCMW03DW) | 9/20/04 | Lacamas Cr. | ND | 0.88 | ND | 0.14 | 0.87 | 0.16 | 0.03 | 0.84 | 0.11 | ND | ND | 1.38 | ND | <1.0 |
| 04L4MW230W (field rinsate; deionized water) | 9/21/04 | Landfill 4 | ND | ND | ND | 0.07 | 0.83 | 0.19 | 0.14 | 0.36 | ND | ND | ND | 4.2 | ND | <1.0 |
| Lab detection limit | | | 0.05 | 0.04 | 0.01 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | 1.0 |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| WA MTCA Method B Levels (ug/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4800 | 4800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 3rd QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (ug/L) | | | | | | | | | | | | | | | SVOC (ug/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Chloromethane | Methylene chloride (see Note) | 1,1-Dichloroethene | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Benzene | Tetrachloroethene | Trichlorofluoromethane | 2-Butanone | Carbon Disulfide | Bromomethane | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 04L4MW02BW | 9/21/2004 | Landfill 4 | 27 | 1.8 | ND | 30 | 41 | 140 | 160 | 0.6 (J) | 1.1 | 0.6 (J) | 3.4 (J) | ND | 7.7 | 11 | ND | ND |
| 04L4MW05AW | 9/21/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | ND | ND | ND | ND | ND | ND | ND |
| 04L4MW17W | 9/16/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | ND | 3.4 (J) | ND | ND |
| 04LCMW04DW | 9/20/2004 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 (J) |
| 04L4MW230W (field rinsate; deionized water) | 9/21/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.1 (J) | 1.3 | 1.3 |
| Trip Blank TB-1 | 9/15/2004 | Base Boundary | ND | ND | 0.9 (J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trip Blank TB-2 | 9/16/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 (J) | ND | ND |
| | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | ND | ND | 5.0 | 1.0 | 1.0 |
| | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (ug/L) | | | n/a | 5 | 5 | n/a | n/a | 200 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
ug/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 3rd QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 04LCMW01SW | 9/15/2004 | 1320 | 6.00 | 13.3 | 84 | 42 | 7.02 | clear | |
| 04LCMW01DW | 9/15/2004 | 1340 | 6.50 | 12.8 | 111 | 56 | 7.07 | clear | |
| 04LCMW02SW | 9/15/2004 | 1420 | 7.15 | 12.5 | 81 | 41 | 6.96 | clear | |
| 04LCMW02DW | 9/16/2004 | 1510 | 7.45 | 12.5 | 86 | 43 | 7.08 | clear | |
| 04LCMW03SW | 9/20/2004 | 1200 | 5.62 | 12.5 | 81 | 41 | 6.90 | clear | |
| 04LCMW03DW | 9/20/2004 | 1220 | 6.26 | 11.6 | 93 | 47 | 6.96 | clear | |
| 04LCMW04SW | 9/20/2004 | 1325 | 5.62 | 12.2 | 82 | 41 | 6.4 | red-brown | |
| 04LCMW04DW | 9/20/2004 | 1305 | 6.25 | 11.9 | 109 | 55 | 7.21 | red-brown | |
| | | | | | | | | | |
| 04LCMW05SW | 9/14/2004 | 1405 | 9.42 | 13.2 | 160 | 82 | 7.65 | clear | |
| 04LCMW05DW | 9/14/2004 | 1340 | 0.50 | 12.1 | 142 | 71 | 7.38 | clear | artesian |
| 04LCMW06SW | 9/14/2004 | 1430 | 12.40 | 12.6 | 270 | 138 | 6.94 | clear | |
| 04LCMW07SW | 9/14/2004 | 1240 | 9.28 | 11.5 | 219 | 111 | 7.88 | clear | |
| 04LCMW08SW | 9/14/2004 | 1315 | 9.26 | 12.7 | 222 | 112 | 7.08 | clear | |
| | | | | | | | | | |
| 04LCMW09SW | 9/15/2004 | 1015 | 5.45 | 13.9 | 34 | 17 | 6.07 | slightly brown | |
| 04LCMW10SW | 9/15/2004 | 1050 | 10.15 | 12.1 | 22 | 11 | 5.56 | slightly brown | |
| 04LCMW11SW | 9/15/2004 | 1115 | 7.70 | 12.5 | 408 | 208 | 6.77 | slightly gray | |
| | | | | | | | | | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 3rd QUARTER 2004
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 04L4MW01AW | 9/21/2004 | 1455 | 16.87 | 11.2 | 37 | 18 | 7.07 | clear | |
| 04L4MW01BW | 9/21/2004 | 1435 | 14.02 | 10.8 | 19 | 9 | 6.19 | clear | |
| 04L4MW02AW | 9/21/2004 | 1210 | 27.65 | 10.7 | 26 | 12 | 7.08 | red-brown | |
| 04L4MW02BW | 9/21/2004 | 1140 | 32.62 | 11.9 | 145 | 73 | 7.08 | clear | |
| 04L4MW03AW | 9/21/2004 | 1410 | 29.46 | 11.5 | 14 | 7 | 5.54 | red-brown | |
| 04L4MW03BW | 9/21/2004 | 1340 | 26.93 | 11.0 | 30 | 14 | 7.08 | slightly brown | |
| 04L4MW04AW | 9/21/2004 | 1240 | 27.60 | 11.0 | 15 | 7 | 7.08 | clear | slow recharge |
| 04L4MW05AW | 9/21/2004 | 1315 | 24.20 | 10.3 | 17 | 9 | 7.08 | clear | |
| 04L4MW07BW | 9/16/2004 | 1250 | 40.32 | 11.1 | 30 | 15 | 7.08 | slightly brown | |
| 04L4MW17W | 9/16/2004 | 1135 | 10.86 | 14.9 | 259 | 132 | 7.07 | slightly brown | |
| 04L4MW18W | 9/16/2004 | 1215 | 11.88 | 12.5 | 121 | 60 | 7.07 | red-brown | |

Notes:
* = depth in feet measured from top of well PVC casing.
- = parameter not measured in field
Water level in monitoring well LC-MW05D was 0.5 inches below top rim of steel casing when opened on 9/14/2004. .
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = screened interval reported on well completion logs
** = depth in feet measured from top of well PVC casing
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 4th QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 05LCMW01SW | 12/8/2004 | Lacamas Cr. | 0.04 | 0.31 | 0.02 | 0.05 | 0.7 | 0.3 | 0.05 | 0.93 | 0.36 | 0.18 | 0.11 | 1.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 1 mg/L |
| 05LCMW01DW | 12/8/2004 | Lacamas Cr. | ND | 0.51 | ND | 0.25 | 1.1 | 0.78 | 0.22 | 1.6 | 0.34 | ND | 0.12 | 2.8 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 4 mg/L; sulfate, 5 mg/L |
| 05LCMW02SW | 12/8/2004 | Lacamas Cr. | ND | 0.19 | ND | 0.28 | 1.2 | 0.65 | 0.19 | 1.4 | 0.19 | ND | 0.06 | 2.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 29 | 46 | chloride, 2 mg/L |
| 05LCMW02DW | 12/8/2004 | Lacamas Cr. | ND | 0.77 | ND | 0.9 | 1.4 | 0.74 | 0.45 | 2.0 | 0.53 | ND | 0.06 | 3.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 4 | 45 | chloride, 2 mg/L; sulfate, 1 mg/L; nitrate 0.2 mg/L |
| 05LCMW03SW | 12/3/2004 | Lacamas Cr. | ND | 0.39 | ND | 0.32 | 0.95 | 0.32 | 0.5 | 0.73 | ND | ND | ND | 3.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 44 | chloride, 1 mg/L; nitrate, 0.2 mg/L |
| 05LCMW03DW | 12/3/2004 | Lacamas Cr. | ND | 0.79 | ND | 0.03 | 1.2 | 0.46 | 0.15 | 1.0 | ND | ND | ND | 2.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 48 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 1 mg/L |
| 05LCMW04SW | 12/3/2004 | Lacamas Cr. | ND | 0.3 | 0.09 | 0.26 | 4.8 | 4.0 | 1.0 | 3.8 | ND | ND | 0.04 | 12.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 47 | 40 | chloride, 2 mg/L; nitrate, 0.9 mg/L |
| 05LCMW04DW | 12/3/2004 | Lacamas Cr. | ND | 1.1 | ND | 0.25 | 2.0 | 0.98 | 0.69 | 1.6 | 0.12 | ND | 0.01 | 6.3 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 7 | 50 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 2 mg/L |
| 05LCMW05SW | 12/2/2004 | Demo Area 3 | 0.67 | 1.6 | ND | 0.33 | 2.0 | 0.91 | 0.47 | 1.9 | 0.22 | 0.12 | 0.01 | 6.0 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW05DW | 12/2/2004 | Demo Area 3 | ND | 1.1 | 0.06 | 0.09 | 1.7 | 1.9 | 1.4 | 1.3 | 0.11 | ND | 0.02 | 4.6 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW06SW | 12/2/2004 | Demo Area 3 | 0.71 | 1.4 | 0.06 | 0.09 | 1.6 | 2.4 | 0.66 | 2.6 | 0.2 | 0.04 | 0.02 | 4.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW07SW | 12/2/2004 | Demo Area 3 | ND | 2.3 | ND | 2.4 | 1.8 | 1.1 | 0.6 | 1.6 | 0.48 | ND | 0.04 | 4.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW08SW | 12/2/2004 | Demo Area 3 | ND | 1.6 | ND | 0.34 | 0.93 | 0.63 | 0.19 | 1.3 | ND | ND | 0.06 | 1.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW09SW | 12/2/2004 | Demo Area 2 | ND | 4.8 | 0.28 | 0.49 | 28.4 | 76.4 | 7.0 | 13.7 | 0.9 | ND | 0.05 | 48.0 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW10SW | 12/2/2004 | Demo Area 2 | ND | 0.32 | 0.11 | 0.28 | 3.0 | 7.1 | 1.2 | 1.9 | ND | ND | 0.02 | 10.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05LCMW11SW | 12/3/2004 | Demo Area 2 | 0.22 | 4.0 | ND | 0.09 | 1.6 | 3.6 | 0.45 | 2.8 | 0.17 | 0.03 | ND | 4.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05L4MW01AW | 12/7/2004 | Landfill 4 | ND | 0.92 | 0.37 | 0.40 | 9.7 | 27.8 | 2.8 | 6.7 | 1.1 | 0.04 | 0.19 | 32.1 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 05L4MW01BW | 12/7/2004 | Landfill 4 | ND | 0.13 | 0.03 | 0.06 | 1.8 | 0.93 | 0.14 | 0.72 | 0.44 | ND | 0.14 | 1.6 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 05L4MW02AW | 12/6/2004 | Landfill 4 | ND | 0.35 | 0.11 | 0.56 | 2.8 | 5.5 | 0.28 | 1.8 | 0.1 | ND | 0.18 | 10.5 | ND | ND | nt | nt | nt | nt | 3.4 | 30 | ND | ND | nt | 230 | nt | nt | nt | nt | nt |
| 05L4MW02BW | 12/6/2004 | Landfill 4 | ND | 2.3 | 0.21 | 0.86 | 3.3 | 2.3 | 0.46 | 4.1 | 0.05 | ND | 0.16 | 9.1 | ND | Detect: See VOC Table | nt | nt | nt | nt | 2.5 | 64 | 3.7 | ND | nt | 310 | nt | nt | nt | nt | nt |
| 05L4MW03AW | 12/6/2004 | Landfill 4 | 0.75 | 0.71 | 0.06 | 1.1 | 1.7 | 0.26 | 1.2 | ND | 0.06 | 0.26 | 2.9 | ND | ND | ND | nt | nt | nt | nt | ND | 10 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 05L4MW03BW | 12/6/2004 | Landfill 4 | ND | 0.54 | 0.12 | 0.67 | 3.5 | 4.5 | 2.0 | 2.3 | 0.11 | ND | 0.21 | 11.4 | ND | ND | nt | nt | nt | nt | ND | 3.6 | ND | ND | nt | 46 | nt | nt | nt | nt | nt |
| 05L4MW04AW | 12/6/2004 | Landfill 4 | ND | 0.82 | 0.19 | 2.1 | 11.6 | 36.4 | 2.1 | 7.0 | 0.14 | 0.08 | 0.23 | 32.7 | ND | ND | nt | nt | nt | nt | ND | 0.91 | ND | ND | nt | 16 | nt | nt | nt | nt | nt |
| 05L4MW05AW | 12/6/2004 | Landfill 4 | ND | 0.38 | 0.15 | 0.29 | 4.0 | 10.0 | 0.7 | 2.7 | 0.89 | ND | 0.17 | 14.6 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 3.7 | ND | ND | nt | 39 | nt | nt | nt | nt | nt |
| 05L4MW07BW | 12/7/2004 | Landfill 4 | ND | 0.80 | ND | 0.07 | 0.77 | 0.52 | 0.09 | 0.97 | 0.56 | ND | 0.13 | 2.7 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 05L4MW17W | 12/7/2004 | Landfill 4 | ND | 0.77 | ND | 0.07 | 0.78 | 0.42 | 0.29 | 0.99 | 0.41 | ND | 0.12 | 1.1 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 05L4MW18W | 12/7/2004 | Landfill 4 | ND | ND | ND | 0.13 | 0.68 | 0.62 | 0.15 | 0.33 | 0.27 | ND | 0.11 | 2.6 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05LCMW150W (field duplicate of 05LCMW07SW) | 12/2/2004 | Lacamas Cr. | ND | 2.3 | ND | 1.7 | 1.5 | 1.1 | 0.42 | 1.5 | 0.37 | ND | 0.04 | 3.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 05L4MW155W (field duplicate of 05L4MW02BW) | 12/6/2004 | Landfill 4 | 0.47 | 2.4 | 0.21 | 1.0 | 3.3 | 2.2 | 0.51 | 4.1 | 7.8 | 0.05 | 0.17 | 9.4 | 0.034 | Detect: See VOC Table | nt | nt | nt | nt | 2.5 | 65 | 3.9 | ND | ND | 300 | nt | nt | nt | nt | nt |
| 05LCMW145W (field duplicate of 05LCMW02SW) | 12/8/2004 | Lacamas Cr. | 0.21 | 0.8 | 0.39 | 0.33 | 17 | 39.3 | 3.6 | 14.9 | 0.42 | 0.1 | 0.13 | 36.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | < 1.0 | 2 | 45 | chloride, 2 mg/L |
| 05LCMW235W (field rinsate; deionized water) | 12/8/2004 | | ND | 1.4 | 0.04 | 0.08 | 1.4 | 3.3 | 0.64 | 4.4 | 0.72 | ND | 0.08 | 3.5 | ND | Detect: See VOC Table | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 2 | 4 | nitrate, 0.3 mg/L |
| Trip Blank TB-1 | 12/3/2004 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 12/6/2004 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.04 | 0.02 | 0.04 | 0.04 | 0.08 | 0.01 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | varies | varies | 0.20 mg/L | 0.82 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0-2.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND TOC - 4th QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 05LCMW01SW | 12/8/2004 | Lacamas Cr. | 0.87 | 0.26 | 0.15 | 0.09 | 0.63 | 0.19 | 0.03 | 0.7 | ND | 0.17 | 0.03 | 1.6 | ND | <1.0 |
| 05LCMW01DW | 12/8/2004 | Lacamas Cr. | ND | 0.45 | ND | 0.04 | 0.61 | 0.33 | 0.05 | 1.1 | 0.22 | ND | 0.02 | 2.9 | ND | <1.0 |
| 05LCMW02SW | 12/8/2004 | Lacamas Cr. | ND | 0.52 | ND | 0.04 | 0.72 | 0.64 | 0.04 | 0.67 | ND | ND | ND | 2.9 | ND | <1.0 |
| 05LCMW02DW | 12/8/2004 | Lacamas Cr. | ND | 0.55 | ND | 0.13 | 0.94 | 0.23 | 0.13 | 1.2 | ND | ND | ND | 1.5 | ND | <1.0 |
| 05LCMW03SW | 12/3/2004 | Lacamas Cr. | ND | 0.40 | ND | 0.03 | 0.6 | 0.26 | 0.05 | 0.8 | ND | ND | ND | 2.9 | ND | <1.0 |
| 05LCMW03DW | 12/3/2004 | Lacamas Cr. | ND | 0.9 | ND | 0.03 | 0.68 | 0.22 | 0.04 | 0.87 | ND | ND | ND | 3.9 | ND | <1.0 |
| 05LCMW04SW | 12/3/2004 | Lacamas Cr. | ND | 0.06 | ND | 0.21 | 0.69 | 0.21 | 0.02 | 0.67 | ND | ND | ND | 2.9 | ND | <1.0 |
| 05LCMW04DW | 12/3/2004 | Lacamas Cr. | ND | 1.3 | ND | 0.03 | 1.0 | 0.44 | 0.05 | 1.5 | ND | ND | ND | 2.3 | ND | <1.0 |
| 05LCMW05SW | 12/2/2004 | Demo Area 3 | ND | 1.4 | ND | 0.21 | 1.1 | 0.51 | 0.12 | 1.5 | ND | ND | ND | 3.9 | ND | nt |
| 05LCMW05DW | 12/2/2004 | Demo Area 3 | 0.94 | 0.83 | ND | 0.03 | 0.68 | 0.39 | 0.12 | 1.3 | ND | 0.13 | 0.02 | 3.2 | ND | nt |
| 05LCMW06SW | 12/2/2004 | Demo Area 3 | ND | 0.92 | ND | 0.04 | 0.83 | 1.1 | 0.13 | 2.2 | 0.12 | ND | 0.01 | 3.7 | ND | nt |
| 05LCMW07SW | 12/2/2004 | Demo Area 3 | ND | 3.5 | ND | 0.03 | 1.2 | 0.50 | 0.04 | 1.5 | ND | ND | 0.02 | 1.4 | ND | nt |
| 05LCMW08SW | 12/2/2004 | Demo Area 3 | ND | 1.4 | ND | 0.16 | 0.7 | 0.54 | 0.05 | 1.4 | ND | ND | 0.08 | 1.9 | ND | nt |
| 05LCMW09SW | 12/2/2004 | Demo Area 2 | ND | 0.11 | ND | 0.04 | 0.66 | 0.2 | 0.08 | 0.77 | ND | ND | 0.02 | 1.0 | ND | nt |
| 05LCMW10SW | 12/2/2004 | Demo Area 2 | 0.15 | ND | ND | 0.08 | 0.7 | 0.44 | 0.03 | 0.71 | ND | ND | ND | 5.4 | ND | nt |
| 05LCMW11SW | 12/3/2004 | Demo Area 2 | ND | 3.6 | ND | 0.03 | 0.57 | 0.28 | 0.05 | 2.2 | ND | ND | ND | 2.9 | ND | nt |
| 05L4MW01AW | 12/7/2004 | Landfill 4 | ND | ND | 0.15 | 0.15 | 0.8 | 0.34 | 0.04 | 0.78 | ND | ND | ND | 4.9 | ND | nt |
| 05L4MW01BW | 12/7/2004 | Landfill 4 | ND | ND | 0.03 | 0.02 | 1.1 | 0.11 | 0.02 | 0.31 | ND | ND | ND | 1.5 | ND | nt |
| 05L4MW02AW | 12/6/2004 | Landfill 4 | ND | ND | 0.05 | 0.25 | 0.9 | 0.19 | 0.06 | 0.7 | ND | ND | ND | 2.4 | ND | nt |
| 05L4MW02BW | 12/6/2004 | Landfill 4 | ND | 1.1 | 0.22 | 0.17 | 2.3 | 0.74 | 0.10 | 2.7 | 3.9 | ND | ND | 7.1 | 0.034 | nt |
| 05L4MW03AW | 12/6/2004 | Landfill 4 | ND | ND | 0.03 | 0.31 | 0.89 | 0.61 | 0.03 | 0.62 | ND | ND | ND | 2.4 | ND | nt |
| 05L4MW03BW | 12/6/2004 | Landfill 4 | ND | ND | 0.03 | 0.16 | 0.9 | 0.32 | 0.09 | 1.2 | ND | ND | 0.01 | 5.5 | ND | nt |
| 05L4MW04AW | 12/6/2004 | Landfill 4 | ND | 0.04 | 0.04 | 0.48 | 2.3 | 2.6 | 0.21 | 2.4 | 0.23 | ND | ND | 4.2 | ND | nt |
| 05L4MW05AW | 12/6/2004 | Landfill 4 | ND | ND | 0.03 | 0.10 | 0.75 | 0.21 | 0.03 | 0.5 | ND | ND | ND | 3.0 | ND | nt |
| 05L4MW07BW | 12/7/2004 | Landfill 4 | ND | 0.08 | 0.02 | 0.14 | 2.0 | 0.37 | 0.05 | 1.7 | ND | ND | ND | 1.8 | ND | nt |
| 05L4MW17W | 12/7/2004 | Landfill 4 | ND | 1.3 | 0.04 | 0.02 | 0.72 | 0.55 | 0.11 | 2.9 | 0.26 | ND | 0.01 | 1.8 | ND | nt |
| 05L4MW18W | 12/7/2004 | Landfill 4 | ND | 0.04 | 0.03 | 0.02 | 1.5 | 0.28 | 0.05 | 1.3 | ND | ND | ND | 1.4 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 05LCMW150W (field duplicate of 05LCMW07SW) | 12/2/2004 | Lacamas Cr. | ND | 3.5 | ND | 0.02 | 1.3 | 0.47 | 0.03 | 1.4 | 0.13 | ND | 0.03 | 0.89 | ND | nt |
| 05L4MW155W (field duplicate of 05L4MW02BW) | 12/6/2004 | Landfill 4 | ND | 1.4 | 0.2 | 0.16 | 2.90 | 0.98 | 0.06 | 2.9 | 4.9 | ND | ND | 8.2 | ND | nt |
| 0LCMW145W (field duplicate of 05LCMW02SW) | 12/8/2004 | Lacamas Cr. | ND | 0.53 | 0.05 | 0.05 | 0.71 | 0.32 | 0.03 | 0.7 | ND | ND | ND | 1.4 | ND | <1.0 |
| 05LCMW235W (field rinsate; deionized water) | 12/8/2004 | | ND | ND | ND | ND | 0.64 | 0.17 | 0.09 | 0.29 | ND | ND | ND | 1.3 | ND | <1.0 |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.05 | 0.04 | 0.01 | 0.04 | 0.04 | 0.08 | 0.05 | 0.04 | 0.04 | 0.04 | 0.02 | 0.77 | 0.03 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 4th QUARTER 2004**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Chloromethane | Methylene chloride (see Note) | 1,1-Dichloroethane | Bromodichloromethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Benzene | Tetrachloroethene (PCE) | 4-Methyl-2-pentanone (MIBK) | Trichlorofluoromethane | 2-Butanone | Carbon Disulfide | Bromomethane | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 05L4MW02BW | 12/6/2004 | Landfill 4 | 24 | ND | ND | 37 | ND | 110 | 160 | 0.5 (J) | 0.8 (J) | 0.7 (J) | ND | 4.9 (J) | 0.8 (J) | ND | 20 | ND | ND |
| 05L4MW05AW | 12/6/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND |
| 05L4MW17W | 12/7/2004 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4.2 (J) | ND | ND | 6.6 | ND | ND |
| 05LCMW01DW | 12/8/2004 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 (J) |
| 05LCMW04DW | 12/3/2004 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 (J) |
| 05L4MW155W (field duplicate of 05L4MW02BW) | 12/6/2004 | Landfill 4 | 21 | ND | ND | 34 | ND | 100 | 130 | 0.5 (J) | 0.7 (J) | 0.6 (J) | 4.8 (J) | ND | 0.7 (J) | ND | 20 | ND | ND |
| 05L4MW235W (field rinsate; deionized water) | 12/8/2004 | Landfill 4 | ND | ND | ND | ND | 0.6 (J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.1 (J) | 1.3 | 2.0 (J) |
| Trip Blank TB-1 | 12/3/2004 | | ND | ND | 0.9 (J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trip Blank TB-2 | 12/6/2004 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 (J) | ND | ND |
| | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | ND | ND | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | 5 | n/a | n/a | 200 | n/a | 5 | 5 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 4th QUARTER 2004
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 05LCMW01SW | 12/8/2004 | 0955 | 3.79 | 286.37 | 10.3 | 84 | 42 | 6.67 | clear | |
| 05LCMW01DW | 12/8/2004 | 1030 | 3.20 | 287.05 | 9.6 | 103 | 52 | 7.07 | clear | |
| 05LCMW02SW | 12/8/2004 | 1130 | 4.40 | 286.79 | 11.7 | 82 | 45 | 7.08 | clear | pH malfunction |
| 05LCMW02DW | 12/8/2004 | 1155 | 4.98 | 286.61 | 11.4 | 88 | 44 | 6.96 | clear | |
| 05LCMW03SW | 12/3/2004 | 1150 | 4.46 | 286.45 | 11.9 | 82 | 41 | 6.89 | clear | |
| 05LCMW03DW | 12/3/2004 | 1215 | 4.62 | 286.36 | 11.1 | 96 | 48 | 6.91 | clear | |
| 05LCMW04SW | 12/3/2004 | 1040 | 4.44 | 287.19 | 11.3 | 81 | 41 | 6.34 | slightly cloudy | |
| 05LCMW04DW | 12/3/2004 | 1115 | 3.08 | 288.71 | 11.3 | 101 | 51 | 7.25 | clear | |
| | | | | | | | | | | |
| 05LCMW05SW | 12/2/2004 | 1125 | 6.54 | 303.56 | 11.4 | 163 | 82 | 7.68 | clear | |
| 05LCMW05DW | 12/2/2004 | 1145 | 0.00 | 309.94 | 10.9 | 143 | 72 | 7.38 | clear | artesian |
| 05LCMW06SW | 12/2/2004 | 1100 | 5.70 | 302.57 | 12 | 264 | 134 | 6.64 | clear | |
| 05LCMW07SW | 12/2/2004 | 1240 | 6.76 | 302.16 | 11.4 | 213 | 107 | 7.44 | clear | |
| 05LCMW08SW | 12/2/2004 | 1215 | 6.26 | 303.52 | 11.5 | 217 | 110 | 7.44 | clear | |
| | | | | | | | | | | |
| 05LCMW09SW | 12/2/2004 | 1415 | 5.01 | 342.30 | 10 | 42 | 21 | 6.14 | cloudy | |
| 05LCMW10SW | 12/2/2004 | 1345 | 8.52 | 342.95 | 11.3 | 23 | 10 | 5.55 | cloudy | |
| 05LCMW11SW | 12/3/2004 | 1310 | 7.10 | 338.62 | 11.5 | 388 | 197 | 6.69 | clear | |
| | | | | | | | | | | |

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 4th QUARTER 2004
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 05L4MW01AW | 12/7/2004 | 0935 | 16.48 | 514.92 | 10 | 60 | 30 | 7.08 | cloudy | pH malfunction |
| 05L4MW01BW | 12/7/2004 | 1010 | 13.30 | 516.27 | 10 | 17 | 8 | 5.83 | clear | |
| 05L4MW02AW | 12/6/2004 | 1210 | 26.18 | 493.75 | 11.1 | 18 | 9 | 5.26 | cloudy | |
| 05L4MW02BW | 12/6/2004 | 1315 | 31.42 | 487.04 | 12.2 | 163 | 83 | 6.67 | clear | |
| 05L4MW03AW | 12/6/2004 | 1015 | 28.64 | 486.21 | 11.1 | 15 | 7 | 5.5 | clear | |
| 05L4MW03BW | 12/6/2004 | 1110 | 26.44 | 485.03 | 11.1 | 30 | 14 | 5.69 | clear | |
| 05L4MW04AW | 12/6/2004 | 1410 | 26.98 | 484.81 | 11.1 | 15 | 7 | 5.92 | clear | slow recharge |
| 05L4MW05AW | 12/6/2004 | 1145 | 22.94 | 486.97 | 10.6 | 19 | 9 | 5.64 | cloudy | |
| 05L4MW07BW | 12/7/2004 | 1040 | 39.40 | 441.02 | 9.9 | 26 | 13 | 5.95 | clear | |
| 05L4MW17W | 12/7/2004 | 1125 | 10.20 | 351.28 | 11.7 | 280 | 142 | 7.08 | clear | slow recharge, pH malfunction |
| 05L4MW18W | 12/7/2004 | 1250 | 11.20 | 351.64 | 11.6 | 134 | 64 | 7.08 | cloudy | pH malfunction |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
- = parameter not measured in field
Water level in monitoring well LC-MW05D was at the top of the rim of steel casing when opened on 12/2/2004. .
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 1st QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| | | | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Sample Date | Sample Location | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 06LCMW01SW | 3/23/2005 | Lacamas Cr. | ND | ND | ND | 0.5 | 0.94 | 0.24 | 0.15 | 0.58 | 0.18 | ND | ND | 1.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 1 mg/L |
| 06LCMW01DW | 3/23/2005 | Lacamas Cr. | ND | ND | ND | 0.02 | 1.4 | 0.25 | 0.045 | 1.1 | 0.17 | ND | ND | 3.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | chloride, 3 mg/L; sulfate, 4 mg/L |
| 06LCMW02SW | 3/23/2005 | Lacamas Cr. | ND | 0.14 | ND | 0.2 | 0.96 | 0.2 | 0.051 | 0.62 | ND | ND | ND | 1.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 1 | 45 | chloride, 2 mg/L |
| 06LCMW02DW | 3/23/2005 | Lacamas Cr. | ND | 0.26 | ND | 0.6 | 1.5 | 0.46 | 0.214 | 1.3 | ND | ND | ND | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.6 | 2 | 44 | chloride, 2 mg/L |
| 06LCMW03SW | 3/23/2005 | Lacamas Cr. | ND | ND | ND | ND | 1.5 | 0.13 | 0.029 | 0.55 | ND | ND | ND | 2.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 44 | chloride, 2 mg/L; nitrate, 0.2 mg/L |
| 06LCMW03DW | 3/23/2005 | Lacamas Cr. | ND | 0.21 | ND | 0.06 | 1.1 | 0.31 | 0.119 | 0.81 | 0.24 | ND | ND | 2.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 49 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 2 mg/L |
| 06LCMW04SW | 3/24/2005 | Lacamas Cr. | ND | ND | ND | 0.09 | 2.2 | 0.97 | 0.236 | 1.4 | 0.25 | ND | ND | 3.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 13 | 39 | chloride, 2 mg/L; nitrate, 0.9 mg/L |
| 06LCMW04DW | 3/24/2005 | Lacamas Cr. | ND | 0.76 | ND | 0.15 | 2.1 | 0.58 | 0.129 | 1.5 | 0.23 | ND | ND | 3.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 7 | 52 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 3 mg/L |
| 06LCMW05SW | 3/22/2005 | Demo Area 3 | ND | 1 | ND | ND | 2.3 | 1.4 | 0.31 | 1.6 | 0.29 | ND | ND | 7.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW05DW | 3/22/2005 | Demo Area 3 | 0.3 | 0.38 | 0.14 | 0.42 | 2.7 | 3.2 | 1.9 | 2.6 | 0.34 | 0.03 | 0.01 | 14.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW06SW | 3/22/2005 | Demo Area 3 | ND | 1.1 | 0.11 | 0.23 | 3.4 | 5.4 | 1.9 | 3.3 | 0.66 | ND | 0.01 | 12.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW07SW | 3/22/2005 | Demo Area 3 | 0.75 | 3.2 | ND | 1.2 | 2.9 | 1.3 | 0.503 | 1.8 | 0.66 | 0.1 | ND | 4.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW08SW | 3/22/2005 | Demo Area 3 | 0.12 | 0.99 | ND | 0.29 | 1.6 | 0.52 | 0.116 | 1.4 | 0.3 | 0.03 | ND | 2.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW09SW | 3/22/2005 | Demo Area 2 | ND | **20.3** | 2.1 | 2.5 | **171** | 461 | **20.4** | 93 | ND | 0.26 | 0.12 | 262 | 0.13 | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW10SW | 3/22/2005 | Demo Area 2 | ND | 0.3 | 0.19 | 0.57 | 6.1 | 13.8 | 3.1 | 3.4 | 0.15 | 0.06 | 0.02 | 19 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW11SW | 3/22/2005 | Demo Area 2 | ND | 3.3 | ND | 0.1 | 1.3 | 1.7 | 0.277 | 2.3 | 0.47 | ND | ND | 2.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06L4MW01AW | 3/28/2005 | Landfill 4 | ND | 0.79 | 0.52 | 0.67 | 15.1 | 41.3 | 4.7 | 11.1 | ND | 0.05 | 0.06 | 55.6 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 06L4MW01BW | 3/28/2005 | Landfill 4 | ND | ND | ND | 0.06 | 2.9 | 0.65 | 0.106 | 0.99 | 0.23 | ND | ND | 1.8 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 06L4MW02AW | 3/28/2005 | Landfill 4 | ND | ND | 0.23 | 0.3 | 8.4 | 18.2 | 0.843 | 6.4 | ND | ND | ND | 26.7 | ND | ND | nt | nt | nt | nt | 2.2 | 19 | ND | ND | nt | 100 | nt | nt | nt | nt | nt |
| 06L4MW02BW | 3/28/2005 | Landfill 4 | ND | 1.2 | 0.04 | 0.64 | 2.2 | 2.2 | 0.744 | 1.4 | 3.5 | ND | ND | 4.5 | ND | Detect: See VOC Table | nt | nt | nt | nt | 2.5 | 67 | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 06L4MW03AW | 3/25/2005 | Landfill 4 | ND | ND | 0.1 | 0.52 | 3.5 | 8.6 | 0.945 | 2 | 0.32 | ND | 0.02 | 21.4 | ND | ND | nt | nt | nt | nt | ND | 8 | ND | ND | nt | 94 | nt | nt | nt | nt | nt |
| 06L4MW03BW | 3/25/2005 | Landfill 4 | ND | 0.26 | 0.14 | 1.1 | 7.9 | 8.5 | 2.6 | 4.4 | 0.3 | ND | 0.03 | 27.3 | ND | ND | nt | nt | nt | nt | ND | 4.8 | ND | ND | nt | 43 | nt | nt | nt | nt | nt |
| 06L4MW04AW | 3/25/2005 | Landfill 4 | ND | ND | 0.19 | 0.45 | 10.1 | 33.3 | 1.4 | 5.6 | 0.13 | 0.03 | 0.05 | 32 | ND | ND | nt | nt | nt | nt | ND | 0.9 | ND | ND | nt | 14 | nt | nt | nt | nt | nt |
| 06L4MW05AW | 3/25/2005 | Landfill 4 | ND | ND | 0.04 | 0.22 | 3.8 | 2.6 | 0.222 | 1.9 | 0.12 | ND | ND | 4.3 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4.2 | ND | ND | nt | 35 | nt | nt | nt | nt | nt |
| 06L4MW07BW | 3/24/2005 | Landfill 4 | 0.23 | ND | ND | 0.04 | 1.7 | 0.11 | 0.006 | 1.2 | 0.19 | 0.03 | ND | 2.2 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 06L4MW17W | 3/24/2005 | Landfill 4 | ND | 0.3 | 0.02 | 0.1 | 1.4 | 1.9 | 0.438 | 2.4 | 0.49 | ND | 0.01 | 3.7 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 06L4MW18W | 3/24/2005 | Landfill 4 | ND | 0.08 | 0.15 | 0.31 | 7.1 | 12.3 | 3.1 | 4.7 | ND | ND | 0.04 | 27.1 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 06LCMW240W (field duplicate of 06LCMW01DW) | 3/23/2005 | Lacamas Cr. | ND | ND | ND | 0.04 | 1.3 | 0.23 | 0.06 | 1 | ND | ND | ND | 1.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | 1.5 | <2 | 45 | chloride, 3 mg/L; sulfate, 4 mg/L |
| 06L4MW250W (field duplicate of 06L4MW07BW) | 3/24/2005 | Landfill 4 | ND | ND | ND | 0.06 | 1.8 | 0.08 | 0.006 | 1.2 | 0.27 | ND | ND | 1.4 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 06LCM245W (field duplicate of 06LCMW05DW) | 3/22/2005 | Lacamas Cr. | 0.1 | 0.39 | 0.1 | 0.52 | 2 | 2.6 | 1.6 | 1.8 | 0.24 | ND | 0.01 | 11.8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 06LCMW255W (field rinsate; deionized water) | 3/24/2005 | | 0.21 | ND | ND | 0.26 | 0.78 | 0.34 | 0.058 | 0.22 | ND | ND | ND | 2.1 | ND | Detect: See VOC Table | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 17 | <2 | <2 | none above detection limits |
| Trip Blank TB-1 | 3/23/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 3/28/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.03 | varies | varies | 0.20 mg/L | 0.82 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0-2.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 1st QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 06LCMW01SW | 3/23/2005 | Lacamas Cr. | ND | ND | ND | 0.02 | 0.89 | 0.17 | 0.022 | 0.69 | 0.49 | ND | 0.02 | 1.2 | ND | <1.0 |
| 06LCMW01DW | 3/23/2005 | Lacamas Cr. | ND | 0.21 | ND | ND | 0.88 | 0.19 | ND | 0.86 | 0.19 | ND | ND | 0.85 | ND | <1.0 |
| 06LCMW02SW | 3/23/2005 | Lacamas Cr. | ND | 0.05 | ND | ND | 1.1 | 0.14 | 0.012 | 0.76 | 0.019 | ND | ND | 1.3 | ND | <1.0 |
| 06LCMW02DW | 3/23/2005 | Lacamas Cr. | ND | ND | ND | 0.03 | 0.99 | 0.16 | 0.007 | 1.3 | 0.11 | ND | ND | 1.9 | ND | 1.6 |
| 06LCMW03SW | 3/23/2005 | Lacamas Cr. | 0.13 | ND | ND | ND | 1.2 | 0.15 | ND | 0.94 | 0.22 | 0.03 | ND | 1 | ND | <1.0 |
| 06LCMW03DW | 3/23/2005 | Lacamas Cr. | ND | 0.13 | ND | ND | 0.9 | 0.14 | 0.005 | 0.85 | 0.31 | ND | ND | 0.9 | ND | <1.0 |
| 06LCMW04SW | 3/24/2005 | Lacamas Cr. | ND | ND | ND | ND | 0.95 | 0.15 | 0.021 | 0.64 | 0.21 | ND | ND | 1.3 | ND | <1.0 |
| 06LCMW04DW | 3/24/2005 | Lacamas Cr. | ND | 0.72 | ND | ND | 1.6 | 0.21 | 0.003 | 1.2 | 0.27 | ND | ND | 0.87 | ND | <1.0 |
| 06LCMW05SW | 3/22/2005 | Demo Area 3 | ND | 1 | ND | ND | 1.2 | 0.38 | 0.122 | 1 | 0.36 | ND | 0.05 | 1.9 | ND | nt |
| 06LCMW05DW | 3/22/2005 | Demo Area 3 | ND | 0.21 | ND | 0.23 | 1.1 | 0.53 | 0.12 | 1.4 | 0.22 | ND | ND | 2.2 | ND | nt |
| 06LCMW06SW | 3/22/2005 | Demo Area 3 | ND | 0.45 | ND | 0.02 | 0.82 | 0.71 | 0.021 | 1.5 | 0.71 | ND | ND | 1.7 | ND | nt |
| 06LCMW07SW | 3/22/2005 | Demo Area 3 | 0.26 | 2.7 | ND | 0.27 | 1.7 | 0.53 | 0.096 | 1.9 | 0.63 | 0.03 | ND | 1.5 | ND | nt |
| 06LCMW08SW | 3/22/2005 | Demo Area 3 | ND | 0.88 | ND | 0.05 | 1.4 | 0.46 | 0.075 | 1.5 | 0.28 | ND | ND | 1.3 | ND | nt |
| 06LCMW09SW | 3/22/2005 | Demo Area 2 | ND | ND | ND | ND | 1.2 | 0.72 | 0.151 | 0.61 | 0.29 | ND | ND | 10.6 | ND | nt |
| 06LCMW10SW | 3/22/2005 | Demo Area 2 | ND | ND | ND | 0.15 | 1.1 | 0.53 | 0.022 | 0.74 | 0.28 | ND | ND | 2.3 | ND | nt |
| 06LCMW11SW | 3/22/2005 | Demo Area 2 | ND | 3.1 | ND | 0.03 | 0.93 | 0.22 | 0.033 | 2 | 0.46 | ND | ND | 2.9 | ND | nt |
| 06L4MW01AW | 3/28/2005 | Landfill 4 | ND | ND | 0.04 | 0.13 | 1.5 | 0.24 | 0.031 | 1.6 | 0.42 | ND | ND | 1.6 | ND | nt |
| 06L4MW01BW | 3/28/2005 | Landfill 4 | ND | ND | ND | 0.02 | 1.4 | 0.05 | 0.015 | 0.6 | 0.14 | ND | ND | 0.92 | ND | nt |
| 06L4MW02AW | 3/28/2005 | Landfill 4 | ND | ND | 0.06 | 0.04 | 1.7 | 0.3 | 0.428 | 1.3 | 0.51 | ND | ND | 1.9 | ND | nt |
| 06L4MW02BW | 3/28/2005 | Landfill 4 | ND | 0.84 | ND | 0.04 | 1.9 | 1.5 | 0.264 | 1.5 | 4.3 | ND | 0.06 | 10.5 | ND | nt |
| 06L4MW03AW | 3/25/2005 | Landfill 4 | 0.61 | ND | 0.02 | 0.09 | 1.3 | 0.27 | 0.042 | 0.75 | 0.33 | ND | ND | 2 | ND | nt |
| 06L4MW03BW | 3/25/2005 | Landfill 4 | 0.19 | ND | 0.02 | 0.29 | 1.5 | 0.44 | 0.123 | 2.3 | 0.15 | ND | ND | 3.7 | ND | nt |
| 06L4MW04AW | 3/25/2005 | Landfill 4 | 0.1 | 0.04 | 0.02 | 0.08 | 1.9 | 1.4 | 0.34 | 2 | 0.48 | ND | 0.06 | 11.1 | ND | nt |
| 06L4MW05AW | 3/25/2005 | Landfill 4 | ND | ND | 0.02 | 0.08 | 1.3 | 0.13 | 0.037 | 1.7 | 0.2 | ND | ND | 2.2 | ND | nt |
| 06L4MW07BW | 3/24/2005 | Landfill 4 | ND | ND | ND | 0.02 | 1.6 | 0.11 | 0.128 | 1.6 | 0.16 | ND | ND | 1.5 | ND | nt |
| 06L4MW17W | 3/24/2005 | Landfill 4 | ND | ND | ND | 0.02 | 1 | 0.43 | 0.149 | 3.3 | 0.44 | ND | ND | 1.4 | ND | nt |
| 06L4MW18W | 3/24/2005 | Landfill 4 | 0.16 | ND | ND | 0.02 | 2.4 | 0.16 | 0.127 | 1.7 | 0.36 | ND | ND | 3.7 | ND | nt |
| 06LCMW240W (field duplicate of 06LCMW01DW) | 3/23/2005 | Lacamas Cr. | ND | 0.13 | ND | ND | 1.1 | 0.15 | 0.005 | 1.1 | 0.35 | ND | ND | 1.1 | ND | 1.5 |
| 06L4MW250W (field duplicate of 06L4MW07BW) | 3/24/2005 | Landfill 4 | 0.43 | ND | ND | 0.03 | 1.7 | 0.07 | 0.002 | 1.4 | 0.23 | ND | ND | 1.3 | ND | nt |
| 06LCM245W (field duplicate of 06LCMW05DW) | 3/22/2005 | Lacamas Cr. | 0.13 | 0.61 | 0.04 | 0.32 | 1.9 | 0.86 | 0.4 | 1.8 | 0.25 | ND | ND | 2.7 | ND | <1.0 |
| 06LCMW255W (field rinsate; deionized water) | 3/24/2005 | | ND | ND | ND | 0.02 | 0.98 | 0.16 | 0.025 | 0.18 | ND | ND | ND | 1.8 | ND | 17 |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.03 | 1.0 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 1st QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Chloromethane | Methylene chloride (see Note) | 1,1-Dichloroethane | Bromodichloromethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Benzene | Tetrachloroethene (PCE) | 4-Methyl-2-pentanone (MIBK) | Trichlorofluoromethane | 2-Butanone | Carbon Disulfide | Bromomethane | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 06L4MW02BW | 3/28/2005 | Landfill 4 | 27 | ND | ND | 37 | ND | 120 | 140 | ND | 0.8 (J) | ND | ND | ND | ND | ND | ND | ND | nt |
| 06L4MW05AW | 3/25/2005 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 (J) | ND | ND | ND | ND | ND | ND | ND | nt |
| 06L4MW17W | 3/24/2005 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.9 (J) | ND | nt |
| 06LCMW255W (field rinsate; deionized water) | 3/24/2005 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4.3 | 2.0 (J) |
| | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | ND | ND | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | 5 | n/a | n/a | 200 | n/a | 5 | 5 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2005
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 06LCMW01SW | 3/23/2005 | 1100 | 5.22 | 284.94 | 10.3 | 84 | 42 | 6.67 | clear | |
| 06LCMW01DW | 3/23/2005 | 1030 | 5.68 | 284.57 | 9.6 | 103 | 52 | 7.07 | clear | |
| 06LCMW02SW | 3/23/2005 | 1130 | 5.60 | 285.59 | 11.7 | 82 | 45 | 7.08 | clear | pH malfunction |
| 06LCMW02DW | 3/23/2005 | 1145 | 6.19 | 285.40 | 11.4 | 88 | 44 | 6.96 | clear | |
| 06LCMW03SW | 3/23/2005 | 1345 | 5.08 | 285.83 | 11.9 | 82 | 41 | 6.89 | clear | |
| 06LCMW03DW | 3/23/2005 | 1315 | 5.24 | 285.74 | 11.1 | 96 | 48 | 6.91 | clear | |
| 06LCMW04SW | 3/24/2005 | 0945 | 5.09 | 286.54 | 11.3 | 81 | 41 | 6.34 | slightly cloudy | |
| 06LCMW04DW | 3/24/2005 | 1020 | 5.78 | 286.01 | 11.3 | 101 | 51 | 7.25 | clear | |
| | | | | | | | | | | |
| 06LCMW05SW | 3/22/2005 | 1150 | 6.75 | 303.35 | 11.4 | 163 | 82 | 7.68 | clear | |
| 06LCMW05DW | 3/22/2005 | 1130 | 0.00 | 309.94 | 10.9 | 143 | 72 | 7.38 | clear | artesian |
| 06LCMW06SW | 3/22/2005 | 1215 | 6.56 | 301.71 | 12 | 264 | 134 | 6.64 | clear | |
| 06LCMW07SW | 3/22/2005 | 1325 | 6.63 | 302.29 | 11.4 | 213 | 107 | 7.44 | clear | |
| 06LCMW08SW | 3/22/2005 | 1305 | 6.94 | 302.84 | 11.5 | 217 | 110 | 7.44 | clear | |
| | | | | | | | | | | |
| 06LCMW09SW | 3/22/2005 | 0930 | 6.72 | 340.59 | 10 | 42 | 21 | 6.14 | cloudy | |
| 06LCMW10SW | 3/22/2005 | 1030 | 9.48 | 341.99 | 11.3 | 23 | 10 | 5.55 | cloudy | |
| 06LCMW11SW | 3/22/2005 | 1006 | 7.26 | 338.46 | 11.5 | 388 | 197 | 6.69 | clear | |
| | | | | | | | | | | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2005
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 06L4MW01AW | 3/28/2005 | 1020 | 15.45 | 515.95 | 10 | 60 | 30 | 7.08 | cloudy | pH malfunction |
| 06L4MW01BW | 3/28/2005 | 1040 | 10.80 | 518.77 | 10 | 17 | 8 | 5.83 | clear | |
| 06L4MW02AW | 3/28/2005 | 1115 | 25.20 | 494.73 | 11.1 | 18 | 9 | 5.26 | cloudy | |
| 06L4MW02BW | 3/28/2005 | 1140 | 30.48 | 487.98 | 12.2 | 163 | 83 | 6.67 | clear | |
| 06L4MW03AW | 3/25/2005 | 1050 | 30.70 | 484.15 | 11.1 | 15 | 7 | 5.5 | clear | |
| 06L4MW03BW | 3/25/2005 | 1110 | 28.18 | 483.29 | 11.1 | 30 | 14 | 5.69 | clear | |
| 06L4MW04AW | 3/25/2005 | 1250 | 27.82 | 483.97 | 11.1 | 15 | 7 | 5.92 | clear | slow recharge |
| 06L4MW05AW | 3/25/2005 | 1140 | 23.51 | 486.40 | 10.6 | 19 | 9 | 5.64 | cloudy | |
| 06L4MW07BW | 3/24/2005 | 1325 | 40.02 | 440.40 | 9.9 | 26 | 13 | 5.95 | clear | |
| 06L4MW17W | 3/24/2005 | 1235 | 10.66 | 350.82 | 11.7 | 280 | 142 | 7.08 | clear | slow recharge, pH malfunction |
| 06L4MW18W | 3/24/2005 | 1210 | 11.70 | 351.14 | 11.6 | 134 | 64 | 7.08 | cloudy | pH malfunction |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
- = parameter not measured in field
Water level in monitoring well LC-MW05D was at the top of the rim of steel casing when opened on 12/2/2004. .
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

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**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 2nd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 07LCMW01SW | 6/24/2005 | Lacamas Cr. | ND | 0.21 | ND | 0.23 | 1.3 | 0.69 | 0.04 | 0.87 | ND | ND | 0.04 | 1.3 | ND | ND | ND | nt | nt | nt | ND | ND | ND | ND | ND | ND | < 1.0 | 19 | 4 | 42 | chloride, 1 mg/L |
| 07LCMW01DW | 6/24/2005 | Lacamas Cr. | ND | 0.35 | ND | ND | 0.99 | 0.49 | ND | 0.86 | ND | ND | 0.04 | 2.4 | 0.089 | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1 | 7 | 45 | chloride, 2 mg/L; sulfate, 2 mg/L |
| 07LCMW02SW | 6/24/2005 | Lacamas Cr. | ND | 0.54 | ND | ND | 0.8 | 0.4 | ND | 0.49 | ND | ND | 0.03 | 0.84 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 6 | 44 | chloride, 2 mg/L |
| 07LCMW02DW | 6/24/2005 | Lacamas Cr. | 0.09 | 0.53 | ND | 0.1 | 1 | 0.45 | 0.02 | 0.92 | ND | ND | 0.12 | 1.5 | ND | Detect: See VOC Table | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | 1 | < 1.0 | 25 | < 2 | 44 | chloride, 2 mg/L |
| 07LCMW03SW | 6/28/2005 | Lacamas Cr. | ND | 0.36 | ND | ND | 1.2 | 0.55 | 0.05 | 0.86 | ND | 0.02 | 0.02 | 2.9 | 0.059 | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.7 | 4 | 41 | chloride, 1 mg/L |
| 07LCMW03DW | 6/28/2005 | Lacamas Cr. | 0.22 | 0.87 | ND | ND | 1 | 0.59 | 0.07 | 0.68 | 0.05 | 0.06 | 0.26 | 0.81 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 4 | 47 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 1 mg/L |
| 07LCMW04SW | 6/28/2005 | Lacamas Cr. | 0.03 | 0.34 | 0.05 | 0.05 | 4.3 | 4 | 0.84 | 3 | ND | 0.04 | 0.05 | 13.4 | 0.059 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.7 | 39 | 40 | chloride, 2 mg/L; nitrate, 0.9 mg/L |
| 07LCMW04DW | 6/28/2005 | Lacamas Cr. | 0.05 | 1.1 | ND | 0.06 | 2.8 | 1.5 | 0.35 | 2.2 | 0.05 | 0.04 | 0.03 | 3.3 | 0.087 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 31 | 50 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 3 mg/L |
| 07LCMW05SW | 6/23/2005 | Demo Area 3 | 0.15 | 1.2 | ND | 0.52 | 2.2 | 1 | 0.18 | 1.5 | 0.08 | ND | 0.04 | 2.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW05DW | 6/23/2005 | Demo Area 3 | 0.14 | 0.91 | ND | 0.21 | 3.1 | 1.6 | 0.72 | 2.3 | 0.07 | 0.03 | 0.05 | 3.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW06SW | 6/23/2005 | Demo Area 3 | 0.23 | 2.3 | ND | ND | 1.4 | 1.7 | 0.2 | 2.3 | 0.06 | 0.04 | 0.1 | 4.9 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW07SW | 6/23/2005 | Demo Area 3 | 0.14 | 3.2 | ND | 0.2 | 2.2 | 1.1 | 0.26 | 1.1 | 0.09 | 0.05 | 0.09 | 3.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW08SW | 6/23/2005 | Demo Area 3 | 0.05 | 1.3 | ND | 0.2 | 2.2 | 0.79 | 0.5 | 1.5 | 0.09 | 0.04 | 0.09 | 3.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW09SW | 6/27/2005 | Demo Area 2 | ND | 0.3 | ND | 0.07 | 2 | 3.3 | 0.25 | 1.2 | ND | ND | 0.03 | 5.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW10SW | 6/27/2005 | Demo Area 2 | 0.05 | 1.9 | 0.3 | 0.84 | 10.5 | 29.2 | 6.1 | 8.6 | 0.05 | ND | 0.08 | 65.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07LCMW11SW | 6/27/2005 | Demo Area 2 | 0.04 | 3.8 | ND | 0.25 | 7.2 | 19.8 | 2.5 | 4.1 | ND | ND | 0.04 | 8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07L4MW01AW | 6/28/2005 | Landfill 4 | 0.27 | 1.7 | 0.48 | 0.32 | 23.3 | 61.1 | 6 | 19.3 | 0.09 | 0.21 | 0.15 | 102 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 07L4MW01BW | 6/28/2005 | Landfill 4 | ND | 0.05 | 0.03 | 0.04 | 4.2 | 1.5 | 0.14 | 2.1 | ND | 0.06 | 0.02 | 3.3 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | < 1 | nt | nt | nt | nt | nt |
| 07L4MW02AW | 6/29/2005 | Landfill 4 | 0.06 | 1 | 0.27 | 0.48 | 24.3 | 37.4 | 1.6 | 21.9 | 0.24 | 0.05 | 0.04 | 112 | 0.24 | ND | nt | nt | nt | nt | 2.3 | 18 | ND | ND | nt | 120 | nt | nt | nt | nt | nt |
| 07L4MW02BW | 6/29/2005 | Landfill 4 | 0.15 | 0.23 | 0.03 | 0.73 | 6.2 | 2.6 | 0.63 | 4.5 | ND | 0.02 | 0.03 | 3.9 | 0.2 | Detect: See VOC Table | nt | nt | nt | nt | 2.6 | 73 | ND | ND | nt | 140 | nt | nt | nt | nt | nt |
| 07L4MW03AW | 6/29/2005 | Landfill 4 | ND | 0.06 | 0.03 | 0.3 | 4 | 2.3 | 0.36 | 2.4 | ND | 0.03 | 0.02 | 5 | **5.6** | ND | nt | nt | nt | nt | ND | 9 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 07L4MW03BW | 6/29/2005 | Landfill 4 | 0.13 | 0.14 | 0.04 | 0.33 | 6 | 2 | 0.66 | 4.3 | 0.09 | 0.04 | 0.07 | 6 | 0.73 | ND | nt | nt | nt | nt | ND | 5.1 | ND | ND | nt | 52 | nt | nt | nt | nt | nt |
| 07L4MW04AW | 6/29/2005 | Landfill 4 | 0.03 | 0.55 | 0.14 | 0.15 | 10.4 | 31.7 | 0.86 | 7.1 | 0.05 | 0.03 | 0.18 | 43.7 | 0.17 | ND | nt | nt | nt | nt | ND | 0.88 | ND | ND | nt | 24 | nt | nt | nt | nt | nt |
| 07L4MW05AW | 6/29/2005 | Landfill 4 | ND | 0.2 | 0.05 | 0.14 | 10.4 | 5.3 | 0.37 | 6.5 | ND | 0.03 | 0.04 | 8.5 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4.1 | ND | ND | nt | 39 | nt | nt | nt | nt | nt |
| 07L4MW07BW | 6/28/2005 | Landfill 4 | ND | 0.19 | ND | 0.09 | 4.2 | 0.87 | 0.05 | 3.2 | 0.04 | 0.06 | 0.02 | 1 | 0.058 | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 07L4MW17W | 6/29/2005 | Landfill 4 | 0.17 | 0.52 | 0.09 | 0.09 | 4.8 | 5.4 | 1.2 | 3.7 | 0.12 | 0.03 | 0.06 | 5.1 | 0.63 | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 07L4MW18W | 6/29/2005 | Landfill 4 | 0.05 | 0.97 | 0.27 | 0.16 | 17.2 | 29.9 | 3.7 | 12.5 | 0.05 | 0.06 | 0.09 | 31.9 | 0.33 | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07LCMW260W (field duplicate of 07LCMW02DW) | 6/24/2005 | Lacamas Cr. | ND | 0.49 | ND | 0.06 | 0.9 | 0.48 | 0.02 | 0.8 | ND | ND | 0.05 | 2.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | 1.1 | < 2 | 44 | chloride, 2 mg/L |
| 07LCMW265W (field duplicate of 07LCMW06SW) | 6/23/2005 | Lacamas Cr. | 0.24 | 2.2 | ND | 0.09 | 1.5 | 1.4 | 0.17 | 2.1 | 0.05 | 0.06 | 0.09 | 3.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 07L4M270W (field duplicate of 07L4MW01AW) | 6/28/2005 | Lacamas Cr. | 0.12 | 2.2 | 0.63 | 0.43 | 29.9 | 91 | 8.4 | 27.9 | 0.07 | 0.15 | 0.14 | 97.6 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3 | nt | nt | nt | nt | nt |
| 07LCMW275W (field rinsate; deionized water) | 6/24/2005 | | ND | ND | ND | ND | 0.35 | 0.49 | ND | 0.19 | ND | ND | 0.02 | 0.87 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.8 | <2 | <2 | none above detection limits |
| Trip Blank TB-1 | 6/24/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 6/28/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.052 | varies | varies | 0.20 mg/L | 0.82 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

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**TABLE 5. DISSOLVED METALS AND DOC - 2nd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 07LCMW01SW | 6/24/2005 | Lacamas Cr. | 0.07 | 0.28 | ND | 0.06 | 0.62 | 0.56 | 0.03 | 0.72 | 0.06 | 0.03 | 0.03 | 3.1 | ND | 19 |
| 07LCMW01DW | 6/24/2005 | Lacamas Cr. | 0.06 | 0.4 | ND | 0.05 | 0.78 | 0.6 | 0.04 | 0.97 | 0.07 | 0.03 | 0.03 | 0.99 | ND | 1.0 |
| 07LCMW02SW | 6/24/2005 | Lacamas Cr. | ND | 0.58 | ND | ND | 0.79 | 0.54 | 0.02 | 0.98 | 0.03 | 0.02 | 0.02 | 0.56 | ND | <1.0 |
| 07LCMW02DW | 6/24/2005 | Lacamas Cr. | ND | 0.54 | ND | 0.05 | 0.82 | 0.47 | ND | 1.5 | 0.04 | ND | 0.03 | 0.66 | ND | 25 |
| 07LCMW03SW | 6/28/2005 | Lacamas Cr. | ND | 0.34 | ND | ND | 0.48 | 0.53 | 0.05 | 0.69 | 0.04 | ND | 0.07 | 1.0 | 0.07 | 1.7 |
| 07LCMW03DW | 6/28/2005 | Lacamas Cr. | 0.25 | 0.91 | ND | 0.03 | 1.7 | 0.57 | 0.02 | 1.3 | 0.04 | 0.05 | 0.09 | 3.5 | 0.082 | <1.0 |
| 07LCMW04SW | 6/28/2005 | Lacamas Cr. | ND | 0.09 | ND | ND | 0.64 | 0.61 | 0.06 | 0.37 | 0.04 | ND | 0.16 | 1.6 | 0.11 | 1.7 |
| 07LCMW04DW | 6/28/2005 | Lacamas Cr. | 0.03 | 1.0 | ND | ND | 0.65 | 2.0 | 0.07 | 0.57 | 0.05 | ND | 0.07 | 5.8 | 0.066 | <1.0 |
| 07LCMW05SW | 6/23/2005 | Demo Area 3 | 0.25 | 1.3 | ND | 0.07 | 0.97 | 0.67 | 0.03 | 0.61 | 0.11 | 0.06 | 0.06 | 5.8 | ND | nt |
| 07LCMW05DW | 6/23/2005 | Demo Area 3 | 0.12 | 0.71 | ND | 0.1 | 0.63 | 0.52 | 0.08 | 1.0 | 0.06 | ND | 0.04 | 1.8 | ND | nt |
| 07LCMW06SW | 6/23/2005 | Demo Area 3 | 0.14 | 1.4 | ND | ND | 0.59 | 0.63 | 0.03 | 1.2 | ND | ND | 0.11 | 1.6 | ND | nt |
| 07LCMW07SW | 6/23/2005 | Demo Area 3 | 0.26 | 3.2 | ND | 0.1 | 1.1 | 0.59 | 0.06 | 0.74 | 0.11 | 0.03 | 0.1 | 1.4 | ND | nt |
| 07LCMW08SW | 6/23/2005 | Demo Area 3 | 0.04 | 1.3 | ND | 0.34 | 0.56 | 0.48 | ND | 0.43 | 0.07 | ND | 0.08 | 2.9 | ND | nt |
| 07LCMW09SW | 6/27/2005 | Demo Area 2 | 0.11 | 0.11 | ND | 0.09 | 0.53 | 0.64 | 0.05 | 0.5 | ND | ND | 0.05 | 1.5 | ND | nt |
| 07LCMW10SW | 6/27/2005 | Demo Area 2 | 0.04 | 0.28 | 0.02 | 0.15 | 0.59 | 1.1 | 0.16 | 1.1 | ND | ND | 0.03 | 2.7 | ND | nt |
| 07LCMW11SW | 6/27/2005 | Demo Area 2 | ND | 3.5 | ND | 0.05 | 0.58 | 0.56 | 0.04 | 1.0 | 0.05 | ND | 0.03 | 1.6 | ND | nt |
| 07L4MW01AW | 6/28/2005 | Landfill 4 | 0.23 | 0.31 | 0.08 | 0.08 | 13.3 | 5.5 | 0.43 | 17.2 | 0.08 | 0.1 | 0.22 | 7.0 | 0.064 | nt |
| 07L4MW01BW | 6/28/2005 | Landfill 4 | ND | ND | ND | ND | 1.4 | 0.62 | 0.07 | 1.4 | ND | ND | 0.07 | 12.7 | 0.12 | nt |
| 07L4MW02AW | 6/29/2005 | Landfill 4 | 0.16 | 0.05 | 0.06 | 0.2 | 3.2 | 1.9 | 0.21 | 5.5 | 0.28 | 1.2 | 0.21 | 6.1 | ND | nt |
| 07L4MW02BW | 6/29/2005 | Landfill 4 | 0.15 | 0.15 | 0.02 | 0.26 | 4.5 | 0.65 | 0.23 | 1.3 | ND | 0.06 | 0.29 | 5.6 | ND | nt |
| 07L4MW03AW | 6/29/2005 | Landfill 4 | ND | ND | 0.02 | 0.09 | 0.93 | 1.1 | 0.13 | 1.4 | ND | ND | 0.06 | 1.7 | 0.09 | nt |
| 07L4MW03BW | 6/29/2005 | Landfill 4 | ND | ND | 0.02 | 0.29 | 1.8 | 0.75 | 0.08 | 2.5 | 0.08 | ND | 0.11 | 4.2 | 0.083 | nt |
| 07L4MW04AW | 6/29/2005 | Landfill 4 | ND | ND | ND | 0.04 | 9.7 | 1.0 | 0.06 | 1.6 | 0.04 | ND | 0.06 | 5.3 | ND | nt |
| 07L4MW05AW | 6/29/2005 | Landfill 4 | ND | ND | 0.02 | 0.08 | 2.2 | 0.71 | 0.04 | 3.1 | 0.05 | ND | 0.06 | 3.5 | ND | nt |
| 07L4MW07BW | 6/28/2005 | Landfill 4 | 0.09 | 0.18 | ND | 0.07 | 1.8 | 0.61 | 0.04 | 2.2 | ND | 0.02 | 0.21 | 4.4 | 0.099 | nt |
| 07L4MW17W | 6/29/2005 | Landfill 4 | 0.13 | 0.26 | ND | ND | 1.1 | 0.83 | 0.13 | 2.2 | 0.16 | ND | 0.08 | 0.93 | 0.069 | nt |
| 07L4MW18W | 6/29/2005 | Landfill 4 | ND | 0.04 | ND | ND | 2.0 | 0.59 | 0.11 | 1.7 | ND | ND | 0.12 | 2.7 | 0.08 | nt |
| 07LCMW260W (field duplicate of 07LCMW02DW) | 6/24/2005 | Lacamas Cr. | ND | 0.59 | ND | 0.07 | 1.0 | 0.55 | ND | 1.8 | 0.03 | 0.02 | 0.02 | 2.0 | ND | 1.1 |
| 07LCMW265W (field duplicate of 07LCMW06SW) | 6/23/2005 | Landfill 4 | ND | 1.5 | ND | ND | 0.56 | 0.68 | 0.08 | 1.3 | ND | ND | 0.07 | 2.7 | ND | nt |
| 07L4M270W (field duplicate of 07L4MW01AW) | 6/28/2005 | Lacamas Cr. | 0.03 | 0.03 | 0.03 | 0.05 | 0.97 | 0.68 | 0.09 | 4.7 | 0.07 | 0.02 | 0.15 | 14.4 | 0.098 | nt |
| 07LCMW275W (field rinsate; deionized water) | 6/24/2005 | | ND | ND | ND | ND | 0.3 | 0.6 | 0.03 | 0.04 | ND | ND | ND | 1.9 | ND | 1.8 |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.052 | 1.0 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

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**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 2nd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Chloromethane | Methylene chloride (see Note) | 1,1-Dichloroethane | Bromodichloromethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Benzene | Tetrachloroethene (PCE) | 4-Methyl-2-pentanone (MIBK) | Trichlorofluoromethane | 2-Butanone | Carbon Disulfide | Bromomethane | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 07LCMW01DW | 6/24/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2 (J) |
| 07LCMW02DW | 6/24/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 (J) | ND | 1 (J) |
| 07LCMW03SW | 6/28/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3 (J) |
| 07LCMW03DW | 6/28/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4 (J) |
| 07L4MW02BW | 6/29/2005 | Landfill 4 | 30 | ND | ND | 48 | ND | 130 | 130 | 0.5 (J) | 0.7 (J) | ND | ND | 3.6 (J) | ND | ND | 7.2 | ND | nt |
| 06L4MW05AW | 6/29/2005 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 (J) | ND | ND | ND | ND | ND | ND | ND | nt |
| 07LCMW275W (field rinsate; deionized water) | 6/24/2005 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.2 (J) | 0.9 (J) | ND |
| | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | ND | ND | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | 5 | n/a | n/a | 200 | n/a | 5 | 5 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

***DRAFT*** **TABLE 7**

## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2005
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample No.** | **Date** | **Time** | **Depth to Water in Feet*** | **Water Elevation in feet amsl **** | **Temp (degrees C)** | **Conductivity (µS/cm)** | **Total Dissolved Solids (ppm)** | **pH** | **Color and Relative Turbidity** | **Notes** |
| 07LCMW01SW | 6/24/2005 | 1015 | 5.89 | 284.27 | 12.0 | 80 | 40 | 6.76 | clear | |
| 07LCMW01DW | 6/24/2005 | 1045 | 5.30 | 284.95 | 12.1 | 89 | 45 | 6.58 | clear | |
| 07LCMW02SW | 6/24/2005 | 1130 | 5.69 | 285.50 | 12.1 | 82 | 41 | 6.65 | clear | |
| 07LCMW02DW | 6/24/2005 | 1150 | 6.22 | 285.37 | 13 | 87 | 44 | 6.58 | clear | Ants in purge water. Duplicate sample taken |
| 07LCMW03SW | 6/28/2005 | 1040 | 4.93 | 285.98 | 11.6 | 78 | 41 | 6.43 | clear | |
| 07LCMW03DW | 6/28/2005 | 1010 | 5.12 | 285.86 | 11.5 | 98 | 49 | 6.51 | clear | MS/MSD sample @ 1020 |
| 07LCMW04SW | 6/28/2005 | 1115 | 4.94 | 286.69 | 11.6 | 86 | 43 | 7.08 | slightly cloudy | pH meter malfunction |
| 07LCMW04DW | 6/28/2005 | 1130 | 5.70 | 286.09 | 11.5 | 107 | 54 | 7.08 | clear | pH meter malfunction |
| | | | | | | | | | | |
| 07LCMW05SW | 6/23/2005 | 1220 | 6.42 | 303.68 | 12.8 | 156 | 79 | 7.21 | clear | |
| 07LCMW05DW | 6/23/2005 | 1200 | 0.00 | 309.94 | 12.6 | 140 | 71 | 6.95 | clear | artesian |
| 07LCMW06SW | 6/23/2005 | 1245 | 6.45 | 301.82 | 12.7 | 200 | 104 | 7.08 | clear | Duplicate sample taken |
| 07LCMW07SW | 6/23/2005 | 1345 | 6.71 | 302.21 | 12.7 | 235 | 119 | 7.58 | clear | |
| 07LCMW08SW | 6/23/2005 | 1320 | 6.31 | 303.47 | 13.4 | 186 | 95 | 7.39 | clear | |
| | | | | | | | | | | |
| 07LCMW09SW | 6/27/2005 | 1325 | 5.28 | 342.03 | 11.3 | 30 | 15 | 5.9 | cloudy | |
| 07LCMW10SW | 6/27/2005 | 1420 | 9.21 | 342.26 | 11.7 | 25 | 13 | 7.08 | cloudy | pH meter malfunction |
| 07LCMW11SW | 6/27/2005 | 1355 | 7.20 | 338.52 | 11.9 | 371 | 189 | 7.08 | clear | pH meter malfunction |

*DRAFT* **TABLE 7**

## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2005
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample No.** | **Date** | **Time** | **Depth to Water in Feet*** | **Water Elevation in feet amsl **** | **Temp (degrees C)** | **Conductivity (µS/cm)** | **Total Dissolved Solids (ppm)** | **pH** | **Color and Relative Turbidity** | **Notes** |
| 07L4MW01AW | 6/28/2005 | 1300 | 16.38 | 515.02 | 11.5 | 39 | 19 | 7.08 | cloudy | pH meter malfunction. Duplicate sample taken. |
| 07L4MW01BW | 6/28/2005 | 1315 | 12.96 | 516.61 | 11.1 | 18 | 9 | 5.29 | clear | |
| 07L4MW02AW | 6/29/2005 | 1245 | 25.46 | 494.47 | 12.9 | 55 | 28 | 7.07 | cloudy | |
| 07L4MW02BW | 6/29/2005 | 1300 | 31.18 | 487.28 | 12.9 | 38 | 19 | 7.07 | clear | |
| 07L4MW03AW | 6/29/2005 | 1120 | 29.16 | 485.69 | 12.0 | 16 | 8 | 7.08 | cloudy | pH meter malfunction |
| 07L4MW03BW | 6/29/2005 | 1135 | 26.64 | 484.83 | 12.0 | 29 | 14 | 7.05 | clear | |
| 07L4MW04AW | 6/29/2005 | 1320 | 27.45 | 484.34 | 13.3 | 12 | 6 | 7.07 | clear | |
| 07L4MW05AW | 6/29/2005 | 1150 | 23.80 | 486.11 | 11.8 | 22 | 10 | 7.07 | slightly cloudy | |
| 07L4MW07BW | 6/28/2005 | 1410 | 39.55 | 440.87 | 10.9 | 28 | 14 | 7.08 | clear | pH meter malfunction |
| 07L4MW17W | 6/29/2005 | 1000 | 10.37 | 351.11 | 14.0 | 300 | 153 | 7.34 | cloudy | purged dry; slow recharge |
| 07L4MW18W | 6/29/2005 | 1040 | 10.45 | 352.39 | 12.0 | 135 | 69 | 6.99 | cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
- = parameter not measured in field
Water level in monitoring well LC-MW05D was at the top of the rim of steel casing when opened on 12/2/2004. .
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

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**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 3rd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 08LCMW01SW | 9/15/2005 | Lacamas Cr. | ND | ND | ND | ND | 0.36 | ND | ND | 0.19 | ND | ND | ND | 2.4 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 46 | chloride, 1 mg/L |
| 08LCMW01DW | 9/15/2005 | Lacamas Cr. | ND | ND | ND | 0.23 | 0.69 | ND | 0.08 | 0.58 | ND | ND | ND | 2 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 48 | chloride, 2 mg/L; sulfate, 2 mg/L |
| 08LCMW02SW | 9/16/2005 | Lacamas Cr. | ND | 0.14 | ND | 0.1 | 0.16 | ND | ND | 0.04 | ND | ND | ND | 1.3 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 2.3 | 2 | 48 | chloride, 1 mg/L |
| 08LCMW02DW | 9/16/2005 | Lacamas Cr. | ND | 0.18 | ND | ND | 0.68 | ND | ND | 0.48 | ND | ND | ND | 0.68 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 48 | chloride, 2 mg/L |
| 08LCMW03SW | 9/16/2005 | Lacamas Cr. | ND | 0.05 | ND | ND | 0.89 | ND | 0.03 | 0.56 | ND | ND | ND | 2.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 2 | 44 | chloride, 1 mg/L, nitrate 0.2 mg/L |
| 08LCMW03DW | 9/16/2005 | Lacamas Cr. | 0.26 | 0.87 | ND | ND | 0.71 | ND | ND | 0.34 | ND | 0.14 | ND | 0.88 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 6.6 | 2 | 48 | chloride, 2 mg/L; nitrate, 0.3 mg/L; sulfate, 1 mg/L |
| 08LCMW04SW | 9/19/2005 | Lacamas Cr. | 0.44 | 0.07 | 0.03 | 0.23 | 2.9 | 1.4 | 0.305 | 2.1 | ND | 0.09 | ND | 4.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 16 | 39 | chloride, 2 mg/L; nitrate, 0.8 mg/L |
| 08LCMW04DW | 9/19/2005 | Lacamas Cr. | 0.64 | 1 | ND | 0.13 | 2.7 | 0.74 | 0.149 | 1.8 | ND | 0.09 | ND | 1.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 10 | 50 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 2 mg/L |
| 08LCMW05SW | 9/14/2005 | Demo Area 3 | 0.26 | 0.87 | ND | 0.66 | 2.4 | 0.81 | 0.44 | 1.8 | ND | ND | ND | 4.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW05DW | 9/14/2005 | Demo Area 3 | 0.06 | 0.81 | 0.03 | 0.07 | 3.7 | 1.1 | 2.4 | 2.1 | 0.05 | ND | ND | 6.2 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW06SW | 9/14/2005 | Demo Area 3 | 0.51 | 2.8 | 0.018 | 0.061 | 16.3 | 37.3 | 5.1 | 10.1 | ND | 0.029 | ND | 88.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW07SW | 9/14/2005 | Demo Area 3 | ND | 2.9 | ND | 0.19 | 2.2 | 1.3 | 0.23 | 1.2 | ND | 0.08 | ND | 6 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW08SW | 9/14/2005 | Demo Area 3 | ND | 0.96 | ND | 0.19 | 1.3 | 0.37 | 0.2 | 0.56 | ND | ND | ND | 1.6 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW09SW | 9/15/2005 | Demo Area 2 | ND | 1.8 | 0.23 | 0.04 | 12.2 | 26.6 | 5.5 | 4.7 | ND | ND | ND | 37 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW10SW | 9/15/2005 | Demo Area 2 | ND | 2.1 | 0.68 | 0.56 | 18.1 | 39 | **22.6** | 9 | ND | ND | 0.09 | 51.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW11SW | 9/15/2005 | Demo Area 2 | ND | 4.6 | ND | 0.09 | 1.6 | 5.2 | 0.81 | 1.5 | ND | ND | ND | 4.7 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08L4MW01AW | 9/20/2005 | Landfill 4 | ND | 0.14 | 0.17 | 0.19 | 8.1 | 9.8 | 0.773 | 5.4 | ND | 0.05 | ND | 15.7 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 08L4MW01BW | 9/20/2005 | Landfill 4 | ND | ND | 0.02 | 0.17 | 3.9 | 0.94 | 0.102 | 1.9 | ND | ND | ND | 1.3 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 08L4MW02AW | 9/21/2005 | Landfill 4 | ND | 0.85 | 0.6 | 0.52 | 22.4 | 54.2 | 2 | 19 | ND | 0.05 | ND | 74.1 | ND | ND | nt | nt | nt | nt | 3.2 | 25 | ND | ND | nt | 200 | nt | nt | nt | nt | nt |
| 08L4MW02BW | 9/21/2005 | Landfill 4 | ND | 0.48 | 0.03 | 0.44 | 2.4 | 2.9 | 0.506 | 1.6 | 1.6 | ND | ND | 2.9 | ND | Detect: See VOC Table | nt | nt | nt | nt | 3 | 82 | ND | ND | nt | 200 | nt | nt | nt | nt | nt |
| 08L4MW03AW | 9/21/2005 | Landfill 4 | 0.27 | ND | 0.05 | 0.13 | 5.4 | 1.3 | 0.146 | 3.7 | 0.15 | 0.05 | ND | 0.69 | ND | ND | nt | nt | nt | nt | ND | 8.9 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 08L4MW03BW | 9/21/2005 | Landfill 4 | ND | 0.24 | 0.1 | 0.34 | 10.3 | 6.4 | 1.7 | 5.9 | 0.3 | 0.05 | ND | 41.7 | ND | ND | nt | nt | nt | nt | ND | 6.1 | ND | ND | nt | 50 | nt | nt | nt | nt | nt |
| 08L4MW04AW | 9/21/2005 | Landfill 4 | ND | 0.2 | 0.11 | 0.25 | 7.2 | 18.9 | 0.52 | 3.4 | ND | 0.03 | ND | 29.2 | ND | ND | nt | nt | nt | nt | ND | 0.61 | ND | ND | nt | 14 | nt | nt | nt | nt | nt |
| 08L4MW05AW | 9/20/2005 | Landfill 4 | ND | ND | 0.06 | 0.22 | 5 | 3.1 | 0.217 | 3.2 | ND | ND | ND | 3.8 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4 | ND | ND | nt | 36 | nt | nt | nt | nt | nt |
| 08L4MW07BW | 9/20/2005 | Landfill 4 | 0.22 | 0.28 | 0.05 | 0.13 | 8.4 | 8.8 | 0.317 | 5.9 | ND | 0.06 | ND | 41.1 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 08L4MW17W | 9/20/2005 | Landfill 4 | ND | 0.57 | 0.03 | 0.06 | 2.5 | 3.5 | 0.641 | 2.8 | 0.2 | ND | ND | 38.3 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 08L4MW18W | 9/20/2005 | Landfill 4 | ND | 2 | 0.47 | 0.72 | **56.7** | 117 | 10 | 43.6 | ND | 0.2 | 0.09 | 106 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08LCMW280W (field duplicate of 08LCMW08SW) | 9/14/2005 | Demo Area 3 | 0.03 | 0.91 | ND | 0.56 | 1.3 | 0.52 | 0.32 | 0.82 | ND | ND | ND | 2.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 08LCMW285W (field duplicate of 08LCMW01DW) | 9/15/2005 | Lacamas Cr. | ND | 0.06 | ND | 0.2 | 0.63 | ND | 0.17 | 0.55 | ND | ND | ND | 2.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | <1.0 | < 2 | 46 | chloride, 2 mg/L; sulfate, 2 mg/L |
| 08L4M290W (field duplicate of 08L4MW03AW) | 9/21/2005 | Landfill 4 | ND | ND | 0.03 | 0.16 | 7.1 | 3.2 | 0.278 | 4 | ND | 0.05 | ND | 2.4 | ND | ND | nt | nt | nt | nt | ND | 9.6 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 08LCMW295W (field rinsate; deionized water) | 9/19/2005 | Field Office | ND | 0.1 | ND | 0.07 | 0.78 | 0.15 | 0.019 | 0.21 | 0.21 | ND | ND | 0.96 | ND | Detect: See VOC Table | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 6.3 | <2 | 2 | none above detection limits |
| Trip Blank TB-1 | 9/15/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 9/21/2005 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.052 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J = value estimated
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

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**TABLE 5. DISSOLVED METALS AND DOC - 3rd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 08LCMW01SW | 9/15/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | 0.05 | ND | ND | ND | 0.59 | ND | <1 |
| 08LCMW01DW | 9/15/2005 | Lacamas Cr. | ND | 0.08 | ND | ND | 0.02 | ND | ND | 0.27 | ND | ND | ND | 0.4 | ND | <1 |
| 08LCMW02SW | 9/16/2005 | Lacamas Cr. | ND | 0.13 | ND | ND | 0.27 | 0.25 | ND | 0.27 | ND | ND | ND | 1.4 | ND | 2.3 |
| 08LCMW02DW | 9/16/2005 | Lacamas Cr. | ND | 0.19 | ND | ND | 0.06 | ND | ND | 0.38 | ND | ND | ND | 0.81 | ND | <1 |
| 08LCMW03SW | 9/16/2005 | Lacamas Cr. | ND | 0.05 | ND | ND | 0.04 | ND | ND | 0.29 | ND | ND | ND | 0.7 | ND | <1 |
| 08LCMW03DW | 9/16/2005 | Lacamas Cr. | 0.32 | 0.56 | ND | ND | 0.07 | 0.3 | ND | 0.35 | ND | 0.13 | ND | ND | ND | 6.6 |
| 08LCMW04SW | 9/19/2005 | Lacamas Cr. | ND | 0.06 | ND | 0.04 | 0.95 | 0.28 | 0.015 | 1.2 | ND | 0.05 | ND | 0.27 | ND | <1 |
| 08LCMW04DW | 9/19/2005 | Lacamas Cr. | ND | 1.1 | ND | 0.06 | 1.1 | 0.5 | 0.048 | 1.9 | ND | 0.09 | ND | 1.7 | ND | <1 |
| 08LCMW05SW | 9/14/2005 | Demo Area 3 | ND | 1.6 | ND | 0.16 | 0.37 | ND | ND | 0.74 | ND | ND | ND | 0.77 | ND | nt |
| 08LCMW05DW | 9/14/2005 | Demo Area 3 | ND | 0.42 | ND | ND | 0.39 | ND | ND | 1.2 | ND | ND | ND | 0.79 | ND | nt |
| 08LCMW06SW | 9/14/2005 | Demo Area 3 | 0.18 | 0.4 | ND | ND | 0.03 | ND | 0.13 | 1.3 | ND | 0.04 | ND | 4.6 | ND | nt |
| 08LCMW07SW | 9/14/2005 | Demo Area 3 | ND | 2.6 | ND | 0.05 | 0.54 | ND | ND | 0.54 | ND | ND | ND | 1.1 | ND | nt |
| 08LCMW08SW | 9/14/2005 | Demo Area 3 | ND | 0.94 | ND | 0.06 | 0.14 | ND | ND | 0.21 | 0.07 | ND | ND | 0.67 | ND | nt |
| 08LCMW09SW | 9/15/2005 | Demo Area 2 | ND | ND | ND | ND | ND | ND | 0.44 | 0.1 | ND | ND | ND | ND | ND | nt |
| 08LCMW10SW | 9/15/2005 | Demo Area 2 | ND | ND | ND | ND | ND | ND | 0.03 | 0.49 | ND | ND | ND | 5.2 | ND | nt |
| 08LCMW11SW | 9/15/2005 | Demo Area 2 | ND | ND | ND | ND | ND | ND | 0.04 | 0.58 | ND | ND | ND | 2.1 | ND | nt |
| 08L4MW01AW | 9/20/2005 | Landfill 4 | ND | ND | 0.05 | 0.09 | 1.5 | 0.16 | 0.166 | 2 | 0.26 | ND | ND | 1.9 | ND | nt |
| 08L4MW01BW | 9/20/2005 | Landfill 4 | ND | ND | ND | 0.1 | 1.4 | 1.1 | 0.103 | 1.2 | 0.26 | ND | ND | 21.9 | ND | nt |
| 08L4MW02AW | 9/21/2005 | Landfill 4 | ND | ND | 0.05 | 0.07 | 1.3 | 0.19 | 0.012 | 2.6 | 0.31 | ND | ND | 0.77 | ND | nt |
| 08L4MW02BW | 9/21/2005 | Landfill 4 | ND | 0.33 | 0.03 | 0.16 | 1.1 | 0.08 | 0.028 | 1 | 1.1 | ND | ND | 1.3 | ND | nt |
| 08L4MW03AW | 9/21/2005 | Landfill 4 | 0.24 | ND | ND | 0.07 | 2.1 | 0.16 | 0.008 | 3.6 | 0.2 | 0.03 | ND | 0.51 | ND | nt |
| 08L4MW03BW | 9/21/2005 | Landfill 4 | ND | ND | 0.02 | 0.19 | 2.3 | 2 | 0.346 | 2.7 | ND | ND | ND | 35.7 | ND | nt |
| 08L4MW04AW | 9/21/2005 | Landfill 4 | ND | ND | 0.02 | 0.23 | 1.7 | 0.21 | 0.23 | 1.9 | 0.21 | ND | ND | 1.4 | ND | nt |
| 08L4MW05AW | 9/20/2005 | Landfill 4 | ND | ND | ND | 0.13 | 1.4 | 0.1 | 0.029 | 1.8 | ND | ND | ND | 1.4 | ND | nt |
| 08L4MW07BW | 9/20/2005 | Landfill 4 | ND | 0.17 | ND | 0.07 | 1.3 | 0.17 | 0.136 | 2.3 | ND | 0.04 | ND | 0.37 | ND | nt |
| 08L4MW17W | 9/20/2005 | Landfill 4 | ND | 0.68 | ND | 0.04 | 0.92 | 0.69 | 0.048 | 2 | 0.42 | ND | ND | 0.37 | ND | nt |
| 08L4MW18W | 9/20/2005 | Landfill 4 | ND | ND | ND | 0.06 | 2 | 1.2 | 0.118 | 2.7 | 0.12 | ND | ND | 1.1 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 08LCMW280W (field duplicate of 08LCMW08SW) | 9/14/2005 | Demo Area 3 | ND | 0.94 | ND | 0.21 | 0.1 | ND | 0.13 | 0.38 | 0.06 | ND | ND | 5.0 | ND | nt |
| 08LCMW285W (field duplicate of 08LCMW01DW) | 9/15/2005 | Lacamas Cr. | ND | 0.05 | ND | ND | ND | ND | 0.07 | 0.17 | ND | ND | ND | 2.1 | ND | <1 |
| 08L4M290W (field duplicate of 08L4MW03AW) | 9/21/2005 | Landfill 4 | ND | ND | 0.03 | 0.08 | 2.6 | 0.18 | 0.03 | 5.1 | ND | ND | ND | 1.9 | ND | nt |
| 08LCMW295W (field rinsate; deionized water) | 9/19/2005 | Field Office | ND | ND | ND | 0.06 | 0.98 | 0.1 | 0.21 | 0.88 | ND | ND | ND | 1.1 | ND | 6.3 |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.04 | 0.02 | 0.01 | 0.02 | 0.052 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

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**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 3rd QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | Chloromethane | Methylene chloride (see Note) | 1,1-Dichloroethane | Bromodichloromethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Benzene | Tetrachloroethene (PCE) | 4-Methyl-2-pentanone (MIBK) | Trichlorofluoromethane | 2-Butanone | Carbon Disulfide | Bromomethane | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 08LCMW01SW | 9/15/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 (J, B) |
| 08LCMW01DW | 9/15/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 (J, B) |
| 08LCMW02SW | 9/16/2005 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 (J, B) |
| | | | | | | | | | | | | | | | | | | | |
| 08L4MW02BW | 9/21/2005 | Landfill 4 | 23 | ND | ND | 40 | ND | 100 | 160 | 0.4 (J) | 0.8 (J) | ND | 100 | ND | ND | ND | ND | ND | nt |
| 08L4MW05AW | 9/20/2005 | Landfill 4 | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 (J) | ND | ND | ND | ND | ND | ND | ND | nt |
| 08LCMW295W (field rinsate; deionized water) | 9/19/2005 | Field Office | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.4 | 2 (J, B) |
| | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | ND | ND | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | 5 | n/a | n/a | 200 | n/a | 5 | 5 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

## *DRAFT* TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 3rd QUARTER 2005
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 08LCMW01SW | 9/15/2005 | 1000 | 6.69 | 283.47 | 12.8 | 97 | 48 | 6.66 | clear | |
| 08LCMW01DW | 9/15/2005 | 1030 | 6.91 | 283.34 | 12.5 | 99 | 49 | 6.64 | clear | collected duplicate |
| 08LCMW02SW | 9/16/2005 | 1140 | 7.78 | 283.41 | 12.1 | 79 | 40 | 6.58 | clear | |
| 08LCMW02DW | 9/16/2005 | 1110 | 8.28 | 283.31 | 12.3 | 86 | 43 | 6.51 | clear | MS/MSD collected |
| 08LCMW03SW | 9/16/2005 | 1010 | 7.26 | 283.65 | 12.2 | 82 | 40 | 6.35 | clear | |
| 08LCMW03DW | 9/16/2005 | 1040 | 7.38 | 283.60 | 11.5 | 93 | 41 | 6.53 | clear | |
| 08LCMW04SW | 9/19/2005 | 1300 | 7.30 | 284.33 | 12.7 | 83 | 42 | 5.93 | clear | |
| 08LCMW04DW | 9/19/2005 | 1320 | 7.76 | 284.03 | 12.1 | 99 | 50 | 6.67 | clear | |
| | | | | | | | | | | |
| 08LCMW05SW | 9/14/2005 | 1010 | 9.14 | 300.96 | 12.4 | 183 | 92 | 7.54 | clear | |
| 08LCMW05DW | 9/14/2005 | 1030 | 0.30 | 309.64 | 12.3 | 149 | 76 | 7.08 | clear | |
| 08LCMW06SW | 9/14/2005 | 1105 | 12.00 | 296.27 | 12.6 | 259 | 128 | 7.0 | clear | purged dry; slow recharge |
| 08LCMW07SW | 9/14/2005 | 1140 | 8.81 | 300.11 | 12 | 241 | 118 | 7.51 | clear | |
| 08LCMW08SW | 9/14/2005 | 1200 | 8.90 | 300.88 | 12.9 | 186 | 94 | 7.31 | clear | |
| | | | | | | | | | | |
| 08LCMW09SW | 9/15/2005 | 1140 | 6.23 | 341.08 | 13.7 | 31 | 15 | 5.81 | clear | |
| 08LCMW10SW | 9/15/2005 | 1210 | 10.96 | 340.51 | 12 | 32 | 16 | 5.48 | cloudy | |
| 08LCMW11SW | 9/15/2005 | 1230 | 8.19 | 337.53 | 12.5 | 379 | 193 | 6.48 | cloudy | |
| 08L4MW01AW | 9/20/2005 | 1100 | 16.90 | 514.50 | 11.6 | 40 | 21 | 5.17 | cloudy | |

## *DRAFT* TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 3rd QUARTER 2005
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 08L4MW01BW | 9/20/2005 | 1130 | 14.04 | 515.53 | 11.1 | 17 | 9 | 5.31 | clear | |
| 08L4MW02AW | 9/21/2005 | 1130 | 28.63 | 491.30 | 13.1 | 29 | 14 | 4.95 | slightly cloudy | |
| 08L4MW02BW | 9/21/2005 | 1100 | 33.24 | 485.22 | 12.7 | 38 | 19 | 5.53 | clear | |
| 08L4MW03AW | 9/21/2005 | 1220 | 30.96 | 483.89 | 12.6 | 16 | 8 | 5.05 | clear | |
| 08L4MW03BW | 9/21/2005 | 1200 | 27.97 | 483.50 | 12.2 | 27 | 13 | 5.36 | slightly cloudy | |
| 08L4MW04AW | 9/21/2005 | 1030 | 28.59 | 483.20 | 11.6 | 7 | 4 | 5.08 | clear | |
| 08L4MW05AW | 9/20/2005 | 1030 | 25.13 | 484.78 | 11 | 19 | 9 | 5.4 | clear | |
| 08L4MW07BW | 9/20/2005 | 1200 | 40.72 | 439.70 | 11.2 | 28 | 14 | 5.49 | slightly cloudy | |
| 08L4MW17W | 9/20/2005 | 1300 | 11.25 | 350.23 | 15.0 | 250 | 127 | 7.04 | clear | |
| 08L4MW18W | 9/20/2005 | 1320 | 12.10 | 350.74 | 13.4 | 116 | 59 | 6.3 | cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
- = parameter not measured in field
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 4th QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 09LCMW01SW | 1/26/2006 | Lacamas Cr. | ND | 0.23 | ND | 0.16 | 0.98 | 0.39 | 0.09 | 0.92 | ND | ND | ND | 3.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 2 | 44 | chloride, 1 mg/L |
| 09LCMW01DW | 1/26/2006 | Lacamas Cr. | 0.17 | 0.38 | ND | 1.7 | 2.2 | 0.77 | 0.681 | 1.9 | ND | ND | 0.01 | 3.3 | ND | ND | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 45 | chloride, 2 mg/L; sulfate, 2 mg/L |
| 09LCMW02SW | 1/27/2006 | Lacamas Cr. | 0.19 | 0.62 | ND | 0.11 | 0.9 | 0.25 | 0.062 | 0.68 | ND | ND | ND | 1.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 44 | chloride, 2 mg/L |
| 09LCMW02DW | 1/27/2006 | Lacamas Cr. | 0.1 | 0.48 | ND | 0.18 | 1.2 | 0.33 | 0.151 | 1.5 | ND | ND | ND | 2.7 | ND | ND | ND | **0.14** | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | < 2 | 44 | chloride, 2 mg/L; sulfate, 1 mg/L |
| 09LCMW03SW | 1/26/2006 | Lacamas Cr. | ND | 0.34 | ND | 0.04 | 0.75 | 0.41 | 0.387 | 0.66 | ND | ND | ND | 3.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 3 | 41 | chloride, 2 mg/L, nitrate 0.2 mg/L |
| 09LCMW03DW | 1/26/2006 | Lacamas Cr. | ND | 0.68 | ND | 0.02 | 1.1 | 0.26 | 0.046 | 0.87 | ND | ND | ND | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 2 | 45 | chloride, 2 mg/L; nitrate, 0.3 mg/L |
| 09LCMW04SW | 1/26/2006 | Lacamas Cr. | ND | 0.12 | 0.03 | 0.03 | 1.3 | 0.58 | 0.198 | 0.95 | ND | ND | ND | 3.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 13 | 38 | chloride, 2 mg/L; nitrate, 0.8 mg/L |
| 09LCMW04DW | 1/26/2006 | Lacamas Cr. | 0.14 | 1.1 | ND | 0.08 | 2.6 | 0.67 | 0.159 | 1.7 | ND | ND | ND | 2.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1.0 | 10 | 50 | chloride, 2 mg/L; nitrate, 0.2 mg/L; sulfate, 2 mg/L |
| 09LCMW05SW | 1/24/2006 | Demo Area 3 | 0.52 | 1.2 | ND | 1.5 | 6 | 2.2 | 0.958 | 3.9 | 0.11 | 0.03 | ND | 8 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW05DW | 1/24/2006 | Demo Area 3 | 0.34 | 0.99 | 0.08 | 0.21 | 5.7 | 3.6 | 1.5 | 4 | 0.16 | 0.07 | 0.02 | 13.4 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW06SW | 1/24/2006 | Demo Area 3 | 0.33 | 0.64 | 0.05 | 0.14 | 2.3 | 5.6 | 0.77 | 1.7 | ND | 0.03 | 0.01 | 30.1 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW07SW | 1/24/2006 | Demo Area 3 | 0.3 | 3.3 | ND | 0.24 | 3.7 | 1.4 | 0.446 | 2.5 | 0.13 | 0.04 | 0.02 | 6.3 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW08SW | 1/24/2006 | Demo Area 3 | 0.33 | 1.2 | ND | 0.76 | 4.6 | 1.1 | 0.506 | 3.2 | 0.12 | 0.03 | 0.01 | 5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW09SW | 1/23/2006 | Demo Area 2 | 0.28 | 0.94 | 0.27 | 0.19 | 5.6 | 14.4 | 3.3 | 3 | ND | 0.04 | 0.02 | 25.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW10SW | 1/23/2006 | Demo Area 2 | 0.39 | 0.45 | 0.16 | 0.83 | 4.6 | 11.6 | 1.9 | 3.5 | ND | 0.4 | 0.2 | 44 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW11SW | 1/23/2006 | Demo Area 2 | 0.24 | 5 | ND | 0.48 | 1.7 | 6 | 0.656 | 2.2 | ND | 0.03 | ND | 11.9 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09L4MW01AW | 1/30/2006 | Landfill 4 | 0.19 | 0.39 | 0.22 | 0.51 | 10 | 22.9 | 2 | 5.9 | 0.18 | 0.14 | 0.08 | 27.8 | ND | ND | nt | nt | nt | nt | ND | 0.68 | ND | ND | nt | 17 | nt | nt | nt | nt | nt | nt |
| 09L4MW01BW | 1/30/2006 | Landfill 4 | ND | 0.08 | 0.09 | 0.1 | 4.8 | 3 | 0.382 | 2.5 | 0.15 | 0.06 | 0.01 | 4.1 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 09L4MW02AW | 1/30/2006 | Landfill 4 | ND | 0.23 | 0.27 | 0.46 | 12.7 | 11.1 | 0.461 | 7.8 | 0.34 | 0.04 | ND | 14.6 | ND | ND | nt | nt | nt | nt | 3.3 | 20 | ND | ND | nt | 95 | nt | nt | nt | nt | nt |
| 09L4MW02BW | 1/30/2006 | Landfill 4 | 0.12 | 0.25 | 0.09 | 0.58 | 2 | 2.6 | 0.367 | 1.6 | 0.61 | ND | ND | 7 | ND | Detect: See VOC Table | nt | nt | nt | nt | 3.5 | 98 | ND | ND | nt | 400 | nt | nt | nt | nt | nt |
| 09L4MW03AW | 1/30/2006 | Landfill 4 | ND | 0.05 | 0.09 | 0.07 | 6.2 | 1.3 | 0.163 | 3.6 | ND | 0.03 | ND | 3.2 | ND | ND | nt | nt | nt | nt | ND | 11 | ND | ND | nt | 110 | nt | nt | nt | nt | nt |
| 09L4MW03BW | 1/30/2006 | Landfill 4 | ND | 0.16 | 0.09 | 0.13 | 14.6 | 4.5 | 0.925 | 8.4 | 0.17 | 0.04 | ND | 14.7 | ND | ND | nt | nt | nt | nt | ND | 4.2 | ND | ND | nt | 53 | nt | nt | nt | nt | nt |
| 09L4MW04AW | 1/30/2006 | Landfill 4 | 0.1 | 0.31 | 0.18 | 0.4 | 10.2 | 24.6 | 0.968 | 5 | 0.13 | 0.04 | 0.02 | 27.2 | ND | ND | nt | nt | nt | nt | ND | 1.1 | ND | ND | nt | 17 | nt | nt | nt | nt | nt |
| 09L4MW05AW | 1/30/2006 | Landfill 4 | ND | ND | 0.05 | 2.6 | 5.6 | 1.2 | 0.041 | 3.5 | 0.16 | ND | ND | 4.2 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 3.4 | ND | ND | nt | 35 | nt | nt | nt | nt | nt |
| 09L4MW07BW | 1/27/2006 | Landfill 4 | ND | 0.18 | 0.07 | 0.06 | 3.5 | 1.1 | 0.073 | 2.7 | 0.12 | 0.03 | ND | 3.9 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt |
| 09L4MW17W | 1/27/2006 | Landfill 4 | 0.34 | 0.37 | 0.1 | 0.7 | 1.7 | 1.5 | 0.654 | 2.8 | 0.29 | 0.03 | ND | 4.1 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 09L4MW18W | 1/27/2006 | Landfill 4 | 0.09 | 0.17 | 0.17 | 0.19 | 8.1 | 10.2 | 1 | 6.8 | 0.13 | 0.03 | ND | 9.9 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 09LCMW300W (field duplicate of 09LCMW05DW) | 1/24/2006 | Demo Area 3 | 0.03 | 1.1 | 0.13 | 0.26 | 6.7 | 6.5 | 2 | 4 | 0.15 | 0.06 | 0.04 | 21.5 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 09LCMW305W (field duplicate of 09LCMW02DW) | 1/27/2006 | Lacamas Cr. | 0.14 | 0.5 | ND | 0.1 | 1.3 | 0.44 | 0.381 | 1.4 | ND | ND | ND | 3.2 | ND | ND | ND | 0.073 | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | <1.0 | 5 | 44 | chloride, 2 mg/L |
| 09L4M310W (field duplicate of 09L4MW05AW) | 1/30/2006 | Landfill 4 | ND | ND | 0.08 | 0.27 | 5.1 | 1.1 | 0.026 | 3.2 | 0.13 | ND | ND | 4.2 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 3.5 | ND | ND | nt | 36 | nt | nt | nt | nt | nt |
| 09LCMW315W (field rinsate; deionized water) | 1/30/2006 | Field Office | ND | 0.03 | 0.06 | 0.06 | 0.91 | 0.62 | 0.057 | 0.36 | 0.1 | ND | ND | 5.1 | ND | Detect: See VOC Table | Detect: See SVOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | 2 | none above detection limits |
| Trip Blank TB-1 | 1/26/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 1/27/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | varies | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J = value estimated
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 4th QUARTER 2005**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 09LCMW01SW | 1/26/2006 | Lacamas Cr. | 7.5 | 0.35 | ND | 0.1 | 0.68 | 0.47 | 0.18 | 0.76 | 3.3 | 0.03 | 0.12 | 2.6 | ND | <1 |
| 09LCMW01DW | 1/26/2006 | Lacamas Cr. | 0.1 | 0.37 | ND | 0.17 | 1.2 | 0.44 | 0.133 | 1.4 | ND | 0.07 | 0.01 | 2.6 | ND | <1 |
| 09LCMW02SW | 1/27/2006 | Lacamas Cr. | ND | 0.59 | ND | 0.05 | 0.61 | 0.34 | 0.064 | 0.73 | ND | 2 | 0.01 | 2.2 | ND | <1 |
| 09LCMW02DW | 1/27/2006 | Lacamas Cr. | ND | 0.48 | ND | 0.08 | 0.62 | 0.3 | 0.073 | 1.2 | ND | 0.03 | ND | 2.4 | ND | <1 |
| 09LCMW03SW | 1/26/2006 | Lacamas Cr. | 0.23 | 0.32 | ND | 0.05 | 0.39 | 0.49 | 0.098 | 0.8 | ND | ND | ND | 2.1 | ND | <1 |
| 09LCMW03DW | 1/26/2006 | Lacamas Cr. | 0.13 | 0.64 | ND | 0.08 | 0.56 | 0.62 | 0.098 | 0.88 | ND | ND | ND | 2.1 | ND | <1 |
| 09LCMW04SW | 1/26/2006 | Lacamas Cr. | 0.49 | 0.1 | ND | 0.06 | 0.6 | 0.3 | 0.079 | 0.69 | ND | 0.03 | ND | 2.6 | ND | <1 |
| 09LCMW04DW | 1/26/2006 | Lacamas Cr. | 6.2 | 1.4 | ND | 0.1 | 1.2 | 0.91 | 0.483 | 1.4 | 3.4 | 0.13 | 0.14 | 2.8 | ND | <1 |
| 09LCMW05SW | 1/24/2006 | Demo Area 3 | ND | 1.1 | ND | 0.46 | 1.3 | 0.78 | 0.131 | 1.8 | 0.16 | 0.03 | 0.01 | 5.3 | ND | nt |
| 09LCMW05DW | 1/24/2006 | Demo Area 3 | 0.25 | 0.72 | ND | 0.15 | 1.3 | 0.38 | 0.07 | 3.8 | 0.17 | 0.1 | 0.04 | 3.5 | ND | nt |
| 09LCMW06SW | 1/24/2006 | Demo Area 3 | 0.18 | 0.37 | ND | 0.07 | 1.8 | 0.75 | 0.042 | 1.1 | ND | 0.14 | 0.05 | 2.9 | ND | nt |
| 09LCMW07SW | 1/24/2006 | Demo Area 3 | 0.17 | 3.2 | ND | 0.14 | 1.4 | 0.79 | 0.09 | 2.4 | 0.13 | 3.8 | 0.01 | 3.1 | ND | nt |
| 09LCMW08SW | 1/24/2006 | Demo Area 3 | 0.19 | 1.2 | ND | 0.33 | 2.1 | 0.64 | 0.133 | 2.9 | 0.15 | 0.09 | 0.03 | 3.8 | ND | nt |
| 09LCMW09SW | 1/23/2006 | Demo Area 2 | 0.75 | 0.62 | ND | 0.05 | 0.68 | 0.51 | 0.207 | 0.58 | ND | ND | ND | 3.7 | ND | nt |
| 09LCMW10SW | 1/23/2006 | Demo Area 2 | ND | 0.03 | 0.02 | 0.18 | 1.5 | 0.88 | 0.447 | 0.87 | ND | 0.61 | ND | 2.6 | ND | nt |
| 09LCMW11SW | 1/23/2006 | Demo Area 2 | ND | 3.7 | ND | 0.1 | 0.53 | 0.52 | 0.111 | 1.50 | 0.32 | 0.1 | 0.02 | 5.1 | ND | nt |
| 09L4MW01AW | 1/30/2006 | Landfill 4 | 0.04 | ND | 0.03 | 0.13 | 0.86 | 0.16 | ND | 1.3 | 0.19 | 0.05 | ND | 4.9 | ND | nt |
| 09L4MW01BW | 1/30/2006 | Landfill 4 | ND | ND | 0.04 | 0.02 | 1 | 0.08 | ND | 0.87 | ND | 0.03 | ND | 2.3 | ND | nt |
| 09L4MW02AW | 1/30/2006 | Landfill 4 | ND | ND | 0.09 | 0.24 | 2.3 | 0.23 | 0.007 | 3.2 | 0.41 | ND | ND | 4.6 | ND | nt |
| 09L4MW02BW | 1/30/2006 | Landfill 4 | ND | 0.16 | 0.05 | 0.52 | 1.1 | 0.25 | ND | 1.6 | 0.44 | ND | ND | 4.4 | ND | nt |
| 09L4MW03AW | 1/30/2006 | Landfill 4 | ND | ND | 0.07 | 0.04 | 1.7 | 0.25 | 0.024 | 2.8 | 0.14 | ND | ND | 3.8 | ND | nt |
| 09L4MW03BW | 1/30/2006 | Landfill 4 | ND | ND | 0.02 | 0.11 | 1.3 | 0.13 | 0.009 | 2.2 | 0.14 | ND | ND | 4.5 | ND | nt |
| 09L4MW04AW | 1/30/2006 | Landfill 4 | ND | ND | 0.09 | 0.13 | 1.6 | 0.26 | 0.017 | 1.5 | 0.13 | ND | ND | 6 | ND | nt |
| 09L4MW05AW | 1/30/2006 | Landfill 4 | 0.03 | ND | 0.04 | 0.21 | 2.5 | 0.26 | 0.019 | 2.7 | ND | ND | ND | 4.2 | ND | nt |
| 09L4MW07BW | 1/27/2006 | Landfill 4 | ND | 0.17 | 0.12 | 0.02 | 1.5 | 0.23 | 0.002 | 2.7 | 0.12 | ND | ND | 3 | ND | nt |
| 09L4MW17W | 1/27/2006 | Landfill 4 | 0.1 | 0.33 | 0.07 | 0.03 | 0.62 | 0.44 | 0.009 | 2.5 | 0.31 | ND | ND | 3 | ND | nt |
| 09L4MW18W | 1/27/2006 | Landfill 4 | ND | 0.08 | 0.07 | 0.05 | 2.4 | 0.24 | ND | 2.1 | 0.15 | 0.03 | ND | 6 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 09LCMW300W (field duplicate of 09LCMW05DW) | 1/24/2006 | Demo Area 3 | 0.33 | 0.72 | ND | 0.15 | 2.0 | 0.48 | 0.098 | 3.6 | 0.18 | 0.04 | 0.06 | 4.0 | ND | nt |
| 09LCMW305W (field duplicate of 09LCMW02DW) | 1/27/2006 | Lacamas Cr. | 0.25 | 0.56 | ND | 0.1 | 1.1 | 0.53 | 0.206 | 1.9 | ND | 0.07 | 0.01 | 2.7 | ND | <1 |
| 09L4M310W (field duplicate of 09L4MW05AW) | 1/30/2006 | Landfill 4 | ND | ND | 0.08 | 0.16 | 2.7 | 0.17 | ND | 4.8 | ND | 0.03 | ND | 3.3 | ND | nt |
| 09LCMW315W (field rinsate; deionized water) | 1/30/2006 | Field Office | ND | ND | 0.08 | ND | 0.34 | 0.17 | ND | 0.05 | ND | ND | ND | 2.3 | ND | <1 |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 0.052 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

## TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 4th QUARTER 2005
## SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Tetrachloroethene (PCE) | Acetone (see Note) | Chloroform | bis(2-Ethylhexyl)phthalate |
| 08LCMW01DW | 1/26/2006 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | ND | 1 (J) |
| 09L4MW02BW | 1/30/2006 | Landfill 4 | 28 | 41 | 110 | 140 | 0.8 (J) | ND | ND | nt |
| 09L4MW05AW | 1/30/2006 | Landfill 4 | ND | ND | ND | ND | 1.0 (J) | ND | ND | nt |
| 09L4MW07BW | 1/27/2006 | Landfill 4 | ND | ND | ND | ND | ND | 2.6 (J) | ND | nt |
| 09L4M310W (field duplicate of 09L4MW05AW) | 1/30/2006 | Landfill 4 | ND | ND | ND | ND | 0.9 (J) | ND | ND | nt |
| 09LCMW315W (field rinsate; deionized water) | 1/30/2006 | Field Office | ND | ND | ND | ND | ND | 3.1 (J) | 1.1 | 5 |
| | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | n/a | 200 | n/a | 5 | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Methylene chloride and acetone are common laboratory solvents and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 4th QUARTER 2005
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 09LCMW01SW | 1/26/2006 | 1300 | 4.29 | 285.87 | 10.8 | 80 | 40 | 6.58 | clear | |
| 09LCMW01DW | 1/26/2006 | 1320 | 4.66 | 285.59 | 11.2 | 86 | 43 | 6.88 | clear | |
| 09LCMW02SW | 1/27/2006 | 1050 | 4.60 | 286.59 | 10.9 | 85 | 42 | 6.78 | clear | |
| 09LCMW02DW | 1/27/2006 | 1130 | 5.14 | 286.45 | 11.5 | 88 | 44 | 6.67 | clear | collected duplicate |
| 09LCMW03SW | 1/26/2006 | 1200 | 4.06 | 286.85 | 10.9 | 79 | 41 | 6.41 | clear | |
| 09LCMW03DW | 1/26/2006 | 1220 | 4.23 | 286.75 | 10.9 | 89 | 44 | 6.55 | clear | |
| 09LCMW04SW | 1/26/2006 | 1120 | 4.15 | 287.48 | 10.2 | 79 | 40 | 6.0 | clear | |
| 09LCMW04DW | 1/26/2006 | 1050 | 4.60 | 287.19 | 10.5 | 100 | 51 | 6.95 | clear | |
| | | | | | | | | | | |
| 09LCMW05SW | 1/24/2006 | 1130 | 6.05 | 304.05 | 11.5 | 148 | 75 | 7.23 | clear | |
| 09LCMW05DW | 1/24/2006 | 1050 | 0.00 | 309.94 | 11.0 | 138 | 69 | 7.14 | clear | collected duplicate |
| 09LCMW06SW | 1/24/2006 | 1230 | 5.62 | 302.65 | 10.3 | 86 | 43 | 6.42 | slightly cloudy | |
| 09LCMW07SW | 1/24/2006 | 1300 | 6.53 | 302.39 | 11.4 | 247 | 125 | 7.52 | clear | |
| 09LCMW08SW | 1/24/2006 | 1320 | 6.12 | 303.66 | 11.8 | 177 | 90 | 7.19 | clear | |
| | | | | | | | | | | |
| 09LCMW09SW | 1/23/2006 | 1325 | 4.91 | 342.40 | 9.7 | 36 | 18 | 5.4 | clear | |
| 09LCMW10SW | 1/23/2006 | 1350 | 8.34 | 343.13 | 10.5 | 21 | 10 | 4.94 | cloudy | |
| 09LCMW11SW | 1/23/2006 | 1420 | 6.41 | 339.31 | 11.3 | 367 | 187 | 6.4 | cloudy | |
| 09L4MW01AW | 1/30/2006 | 1400 | 11.18 | 520.22 | 10.7 | 23 | 11 | 6.98 | slightly cloudy | |

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 4th QUARTER 2005
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 09L4MW01BW | 1/30/2006 | 1420 | 7.39 | 522.18 | 10.4 | 19 | 9 | 7.0 | clear | |
| 09L4MW02AW | 1/30/2006 | 1230 | 22.55 | 497.38 | 11.3 | 54 | 27 | 4.86 | slightly cloudy | |
| 09L4MW02BW | 1/30/2006 | 1250 | 28.71 | 489.75 | 11.1 | 52 | 20 | 5.76 | clear | MS/MSD collected |
| 09L4MW03AW | 1/30/2006 | 1140 | 26.21 | 488.64 | 11.2 | 15 | 7 | 5.05 | clear | |
| 09L4MW03BW | 1/30/2006 | 1120 | 23.50 | 487.97 | 10.7 | 23 | 11 | 5.21 | clear | |
| 09L4MW04AW | 1/30/2006 | 1330 | 24.72 | 487.07 | 10.5 | 13 | 6 | 5.02 | clear | |
| 09L4MW05AW | 1/30/2006 | 1050 | 19.22 | 490.69 | 10.4 | 19 | 9 | 5.24 | clear | collected duplicate |
| 09L4MW07BW | 1/27/2006 | 1340 | 38.36 | 442.06 | 10.2 | 26 | 13 | 5.79 | clear | |
| 09L4MW17W | 1/27/2006 | 1250 | 9.20 | 352.28 | 10.5 | 210 | 104 | 7.26 | clear | |
| 09L4MW18W | 1/27/2006 | 1310 | 10.56 | 352.28 | 11.0 | 128 | 65 | 6.28 | slightly cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 1st QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | |
| 10LCMW01SW | 3/23/2006 | Lacamas Cr. | 0.34 | 0.23 | ND | 0.28 | 0.73 | 0.29 | 0.14 | 0.71 | 0.09 | 0.02 | ND | 1.62 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 5 | 42 | chloride, 1.5 mg/L |
| 10LCMW01DW | 3/23/2006 | Lacamas Cr. | 0.19 | 0.40 | ND | 0.49 | 1.55 | 0.38 | 0.25 | 1.93 | ND | ND | ND | 2.49 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 5 | 44 | chloride, 1.8 mg/L; sulfate, 1.4 mg/L |
| 10LCMW02SW | 3/23/2006 | Lacamas Cr. | 0.42 | 0.67 | ND | 0.10 | 1.02 | 0.27 | 0.04 | 0.85 | ND | 0.05 | ND | 1.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 2 | 44 | chloride, 2 mg/L |
| 10LCMW02DW | 3/23/2006 | Lacamas Cr. | 0.22 | 0.56 | ND | 0.21 | 1.73 | 0.44 | 0.16 | 2.50 | ND | 0.04 | ND | 1.77 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 5 | 44 | chloride, 2.2 mg/L; nitrate, 0.2 mg/L; sulfate, 1 mg/L |
| 10LCMW03SW | 3/22/2006 | Lacamas Cr. | ND | 0.26 | ND | 0.02 | 0.77 | 0.20 | 0.03 | 0.66 | ND | ND | ND | 0.85 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | <2 | 45 | chloride, 2.3 mg/L, nitrate 0.31 mg/L; sulfate, 2.7 mg/L |
| 10LCMW03DW | 3/22/2006 | Lacamas Cr. | ND | 0.56 | ND | 0.01 | 1.31 | 0.20 | 0.05 | 1.05 | 0.07 | 0.10 | ND | 1.36 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | <2 | 45 | chloride, 1.8 mg/L, nitrate 0.38 mg/L; sulfate, 1.1 mg/L |
| 10LCMW04SW | 3/22/2006 | Lacamas Cr. | 0.74 | 0.09 | ND | 0.05 | 1.77 | 0.49 | 0.11 | 1.13 | ND | 0.59 | ND | 1.54 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 5 | 36 | chloride, 2.3 mg/L; nitrate, 0.83 mg/L |
| 10LCMW04DW | 3/22/2006 | Lacamas Cr. | 0.24 | 1.17 | ND | 0.04 | 2.08 | 0.36 | 0.05 | 1.64 | ND | 0.07 | ND | 1.80 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 3 | 50 | chloride, 2.4 mg/L; nitrate, 0.3 mg/L; sulfate, 2.6 mg/L |
| 10LCMW05SW | 3/21/2006 | Demo Area 3 | 0.42 | 1.13 | ND | 0.54 | 13.30 | 1.55 | 0.47 | 8.48 | 0.52 | 0.23 | ND | 5.30 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW05DW | 3/21/2006 | Demo Area 3 | ND | 0.95 | 0.04 | 0.08 | 2.50 | 2.08 | 0.76 | 1.79 | 0.27 | 0.15 | 0.02 | 3.54 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW06SW | 3/21/2006 | Demo Area 3 | ND | 0.58 | ND | 0.12 | 2.72 | 3.15 | 0.31 | 2.24 | ND | 0.03 | ND | 5.54 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW07SW | 3/21/2006 | Demo Area 3 | 0.36 | 3.01 | ND | 0.35 | 5.43 | 4.24 | 1.66 | 3.42 | 0.11 | 0.12 | 0.01 | 21.20 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW08SW | 3/21/2006 | Demo Area 3 | 0.25 | 1.09 | ND | 0.90 | 6.19 | 1.57 | 0.68 | 4.10 | 0.16 | 0.20 | ND | 5.74 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW09SW | 3/22/2006 | Demo Area 2 | ND | 0.39 | 0.10 | 0.19 | 3.06 | 5.64 | 1.79 | 2.25 | ND | 0.03 | 0.01 | 15.10 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW10SW | 3/22/2006 | Demo Area 2 | ND | 0.74 | 0.15 | 0.39 | 6.93 | 14.90 | 3.07 | 4.83 | 0.10 | 0.05 | 0.04 | 24.70 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10LCMW11SW | 3/22/2006 | Demo Area 2 | ND | 4.35 | ND | 0.10 | 2.03 | 4.59 | 0.48 | 2.48 | 0.16 | 0.03 | ND | 2.91 | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt |
| 10L4MW01AW | 3/27/2006 | Landfill 4 | ND | 0.24 | 0.15 | 0.29 | 6.47 | 11.70 | 1.02 | 4.17 | 0.07 | 0.05 | 0.02 | 20.10 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 4.7 | nt | nt | nt | nt | nt |
| 10L4MW01BW | 3/27/2006 | Landfill 4 | ND | ND | 0.04 | 0.43 | 3.63 | 2.25 | 0.26 | 1.86 | ND | 0.03 | ND | 4.18 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 10L4MW02AW | 3/27/2006 | Landfill 4 | 0.09 | 0.15 | 0.12 | 0.45 | 5.27 | 6.07 | 0.28 | 3.54 | 0.41 | 0.05 | ND | 10.10 | ND | ND | nt | nt | nt | nt | 2.6 | 17 | ND | ND | nt | 120 | nt | nt | nt | nt | nt |
| 10L4MW02BW | 3/27/2006 | Landfill 4 | 0.14 | 0.27 | 0.06 | 0.58 | 3.23 | 5.46 | 0.65 | 2.14 | 0.72 | 0.06 | ND | 6.43 | ND | Detect: See VOC Table | nt | nt | nt | nt | 3.1 | 88 | ND | ND | nt | 280 | nt | nt | nt | nt | nt |
| 10L4MW03AW | 3/24/2006 | Landfill 4 | ND | 0.04 | 0.31 | 0.50 | 2.94 | 2.18 | 0.34 | 1.69 | 0.11 | 0.04 | ND | 3.77 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 8.4 | ND | ND | nt | 99 | nt | nt | nt | nt | nt |
| 10L4MW03BW | 3/24/2006 | Landfill 4 | 0.81 | 0.08 | 0.04 | 0.41 | 5.71 | 3.24 | 0.84 | 3.05 | ND | 0.08 | 0.01 | 8.76 | ND | ND | nt | nt | nt | nt | ND | 4.7 | ND | ND | nt | 46 | nt | nt | nt | nt | nt |
| 10L4MW04AW | 3/27/2006 | Landfill 4 | ND | 0.37 | 0.14 | 0.23 | 14.30 | 26.00 | 0.73 | 7.74 | 0.14 | 0.11 | 0.05 | 34.10 | ND | ND | nt | nt | nt | nt | ND | 1.5 | ND | ND | nt | 20 | nt | nt | nt | nt | nt |
| 10L4MW05AW | 3/27/2006 | Landfill 4 | ND | 0.04 | 0.03 | 0.36 | 2.16 | 1.79 | 0.16 | 1.56 | ND | 0.03 | ND | 5.30 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | 4.1 | ND | ND | nt | 30 | nt | nt | nt | nt | nt |
| 10L4MW07BW | 3/24/2006 | Landfill 4 | 0.07 | 0.17 | 0.02 | 0.09 | 2.75 | 1.28 | 0.10 | 2.14 | 0.08 | 0.06 | ND | 3.17 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2.6 | nt | nt | nt | nt | nt |
| 10L4MW17W | 3/24/2006 | Landfill 4 | ND | 0.34 | 0.07 | 0.07 | 2.33 | 3.61 | 0.98 | 2.94 | 0.15 | 0.04 | 0.02 | 3.74 | ND | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| 10L4MW18W | 3/24/2006 | Landfill 4 | ND | 0.78 | 0.21 | 0.55 | 22.80 | 45.90 | 4.93 | 15.70 | ND | 0.13 | 0.07 | 40.90 | ND | Detect: See VOC Table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10LCMW320W (field duplicate of 10LCMW04DW) | 3/22/2006 | Lacamas Cr. | ND | 0.11 | ND | 0.02 | 1.96 | 0.37 | 0.05 | 1.28 | 0.28 | 0.06 | ND | 1.46 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | <1 | 3 | 50 | chloride, 1.6 mg/L; nitrate, 0.3 mg/L |
| 10LCMW325W (field duplicate of 10LCMW01SW) | 3/23/2006 | Lacamas Cr. | 1.13 | 0.24 | ND | 0.09 | 0.79 | 0.28 | 0.07 | 0.71 | ND | 0.06 | ND | 1.70 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | <1.0 | <1 | 4 | 43 | chloride, 1.6 mg/L |
| 10L4M330W (field duplicate of 10L4MW03BW) | 3/24/2006 | Landfill 4 | ND | 0.12 | 0.03 | 0.44 | 6.01 | 3.61 | 0.88 | 4.00 | ND | 0.07 | 0.01 | 17.40 | ND | ND | nt | nt | nt | nt | ND | 3.8 | ND | ND | nt | 45 | nt | nt | nt | nt | nt |
| 10LCMW335W (field rinsate; deionized water) | 3/27/2006 | Field Office | 0.07 | ND | ND | 0.12 | 0.41 | 0.31 | 0.02 | 0.51 | ND | ND | ND | 1.50 | ND | Detect: See VOC Table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.5 | < 1 | <2 | <2 | none above detection limits |
| Trip Blank TB-1 | 3/22/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 3/24/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 0.013 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J = value estimated
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 1st QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Nickel | Selenium | Silver | Thallium | Zinc | Mercury | |
| 10LCMW01SW | 3/23/2006 | Lacamas Cr. | 0.16 | 0.22 | ND | 0.03 | 0.27 | 0.18 | 0.03 | 0.56 | ND | ND | ND | 3.15 | ND | <1 |
| 10LCMW01DW | 3/23/2006 | Lacamas Cr. | 0.10 | 0.39 | ND | 0.17 | 0.93 | 0.19 | 0.02 | 1.21 | ND | ND | ND | 2.87 | ND | <1 |
| 10LCMW02SW | 3/23/2006 | Lacamas Cr. | ND | 0.57 | ND | 0.03 | 0.52 | 0.17 | 0.04 | 0.89 | ND | ND | ND | 2.26 | ND | <1 |
| 10LCMW02DW | 3/23/2006 | Lacamas Cr. | ND | 0.51 | ND | 0.03 | 0.39 | 0.14 | 0.02 | 1.06 | ND | 0.04 | ND | 1.96 | ND | <1 |
| 10LCMW03SW | 3/22/2006 | Lacamas Cr. | ND | 0.25 | ND | 0.01 | 0.56 | 0.20 | 0.06 | 0.83 | 0.09 | ND | ND | 3.43 | ND | <1 |
| 10LCMW03DW | 3/22/2006 | Lacamas Cr. | ND | 0.62 | ND | 0.02 | 0.62 | 0.17 | 0.03 | 1.07 | 0.08 | ND | ND | 2.11 | ND | <1 |
| 10LCMW04SW | 3/22/2006 | Lacamas Cr. | ND | 0.09 | ND | 0.02 | 0.94 | 0.14 | 0.02 | 1.88 | 0.11 | ND | ND | 1.64 | ND | <1 |
| 10LCMW04DW | 3/22/2006 | Lacamas Cr. | ND | 1.08 | ND | 0.02 | 1.00 | 0.23 | 0.02 | 1.20 | ND | ND | ND | 1.19 | ND | <1 |
| 10LCMW05SW | 3/21/2006 | Demo Area 3 | ND | 0.99 | ND | 0.23 | 1.27 | 0.27 | 0.04 | 1.48 | ND | ND | ND | 2.15 | ND | nt |
| 10LCMW05DW | 3/21/2006 | Demo Area 3 | ND | 0.78 | ND | 0.04 | 0.73 | 0.31 | 0.04 | 1.49 | 0.18 | 0.04 | 0.01 | 2.39 | ND | nt |
| 10LCMW06SW | 3/21/2006 | Demo Area 3 | 0.89 | 0.43 | ND | 0.04 | 1.30 | 0.50 | 0.03 | 1.39 | 0.08 | ND | ND | 2.71 | ND | nt |
| 10LCMW07SW | 3/21/2006 | Demo Area 3 | 0.22 | 2.92 | ND | 0.11 | 1.40 | 0.45 | 0.06 | 1.89 | 0.19 | ND | ND | 1.82 | ND | nt |
| 10LCMW08SW | 3/21/2006 | Demo Area 3 | ND | 1.09 | ND | 0.26 | 1.52 | 0.38 | 0.59 | 1.80 | 0.10 | ND | ND | 3.04 | ND | nt |
| 10LCMW09SW | 3/22/2006 | Demo Area 2 | ND | 0.07 | ND | 0.05 | 0.55 | 0.45 | 0.04 | 0.68 | ND | ND | ND | 2.22 | ND | nt |
| 10LCMW10SW | 3/22/2006 | Demo Area 2 | ND | ND | ND | 0.10 | 0.61 | 0.41 | 0.02 | 0.71 | ND | ND | ND | 2.54 | ND | nt |
| 10LCMW11SW | 3/22/2006 | Demo Area 2 | 0.62 | 3.69 | ND | 0.02 | 0.62 | 0.22 | 0.05 | 1.86 | 0.27 | ND | ND | 2.17 | ND | nt |
| 10L4MW01AW | 3/27/2006 | Landfill 4 | 0.07 | ND | 0.04 | 0.07 | 0.71 | 0.32 | 0.04 | 1.32 | ND | ND | ND | 3.99 | ND | nt |
| 10L4MW01BW | 3/27/2006 | Landfill 4 | ND | ND | 0.01 | 0.03 | 0.86 | 0.11 | 0.04 | 0.91 | ND | ND | ND | 2.20 | ND | nt |
| 10L4MW02AW | 3/27/2006 | Landfill 4 | ND | 0.04 | 0.06 | 0.17 | 1.16 | 0.23 | 0.03 | 1.74 | 0.39 | ND | ND | 5.64 | ND | nt |
| 10L4MW02BW | 3/27/2006 | Landfill 4 | 0.36 | 0.21 | 0.04 | 0.25 | 1.80 | 0.21 | 0.04 | 2.05 | 0.50 | ND | ND | 6.04 | ND | nt |
| 10L4MW03AW | 3/24/2006 | Landfill 4 | ND | ND | 0.01 | 0.10 | 1.06 | 0.16 | 0.02 | 1.05 | ND | ND | ND | 4.73 | ND | nt |
| 10L4MW03BW | 3/24/2006 | Landfill 4 | ND | ND | ND | 0.21 | 1.13 | 0.26 | 0.04 | 2.34 | 0.10 | ND | ND | 5.04 | ND | nt |
| 10L4MW04AW | 3/27/2006 | Landfill 4 | 0.13 | ND | 0.03 | 0.05 | 1.38 | 0.15 | 0.02 | 3.10 | ND | ND | ND | 2.83 | ND | nt |
| 10L4MW05AW | 3/27/2006 | Landfill 4 | ND | ND | 0.02 | 0.24 | 0.79 | 0.23 | 0.06 | 1.19 | ND | ND | ND | 4.94 | ND | nt |
| 10L4MW07BW | 3/24/2006 | Landfill 4 | ND | 0.12 | ND | 0.07 | 1.31 | 0.15 | 0.08 | 1.92 | ND | ND | ND | 2.80 | ND | nt |
| 10L4MW17W | 3/24/2006 | Landfill 4 | ND | 0.24 | ND | 0.02 | 0.70 | 0.56 | 0.05 | 2.38 | 0.12 | ND | ND | 1.95 | ND | nt |
| 10L4MW18W | 3/24/2006 | Landfill 4 | ND | 0.07 | ND | 0.04 | 2.01 | 0.11 | 0.02 | 2.68 | 0.12 | ND | ND | 1.64 | ND | nt |
| | | | | | | | | | | | | | | | | |
| 10LCMW320W (field duplicate of 10LCMW04DW) | 3/22/2006 | Lacamas Cr. | ND | 1.26 | ND | ND | 0.95 | 0.17 | 0.01 | 1.28 | ND | ND | ND | 1.28 | ND | <1 |
| 10LCMW325W (field duplicate of 10LCMW01SW) | 3/23/2006 | Lacamas Cr. | 0.36 | 0.27 | ND | 0.02 | 0.36 | 0.30 | 0.01 | 0.71 | 0.13 | ND | ND | 1.60 | ND | <1 |
| 10L4M330W (field duplicate of 10L4MW03BW) | 3/24/2006 | Landfill 4 | ND | ND | 0.02 | 0.21 | 1.04 | 0.23 | 0.03 | 2.24 | 0.12 | ND | ND | 5.15 | ND | nt |
| 10LCMW335W (field rinsate; deionized water) | 3/27/2006 | Field Office | ND | ND | ND | ND | 0.91 | 0.09 | 0.04 | 0.20 | ND | ND | ND | 1.22 | ND | <1 |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 0.013 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | n/a | n/a | n/a | n/a | n/a | 2 | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 320 | 80 | 80 | 1.1 | 4,800 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

## TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 1st QUARTER 2006
## SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethene | 1,1-Dichloroethane | 1,1,1-Trichloroethane | Dichlorodifluoromethane | Tetrachloroethene (PCE) | Acetone (see Note) | Trichlorofluoromethane | Chloroform | bis(2-Ethylhexyl)phthalate |
| 10LCMW01SW | 3/23/2006 | Lacamas Cr. | ND | ND | ND | ND | ND | 1.4 (J) | ND | ND | ND |
| 10LCMW02DW | 3/23/2006 | Lacamas Cr. | ND | ND | ND | ND | ND | 3.2 (J) | ND | ND | ND |
| 10LCMW03SW | 3/22/2006 | Lacamas Cr. | ND | ND | ND | ND | ND | 2.3 (J) | ND | ND | ND |
| 10LCMW03DW | 3/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | 1.2 (J) | ND | ND | ND |
| 10LCMW04DW | 3/22/2006 | Lacamas Cr. | ND | ND | ND | ND | ND | 1.0 (J) | ND | ND | ND |
| 10L4MW02BW | 3/27/2006 | Landfill 4 | 29 | 45 | 110 | 180 | 0.7 (J) | ND | 0.7 (J) | ND | nt |
| 10L4MW03AW | 3/24/2006 | Landfill 4 | ND | ND | ND | ND | ND | 1.5 (J) | ND | ND | ND |
| 10L4MW05AW | 3/27/2006 | Landfill 4 | ND | ND | ND | ND | 0.8 (J) | ND | ND | ND | nt |
| 10L4MW07BW | 3/24/2006 | Landfill 4 | ND | ND | ND | ND | ND | 0.7 (J) | ND | ND | nt |
| 10L4MW18W | 3/24/2006 | Landfill 4 | ND | ND | ND | ND | ND | 2.6 (J) | ND | ND | nt |
| 10LCMW335W (field rinsate; deionized water) | 3/27/2006 | Field Office | ND | ND | ND | ND | ND | 17.0 (J) | ND | 6.2 | ND |
| | | | | | | | | | | | |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | 1.0 | 1.0 | 2.0 |
| | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | n/a | 200 | n/a | 5 | n/a | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Acetone is a common laboratory solvents and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2006
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 10LCMW01SW | 3/23/2006 | 1300 | 4.70 | 285.46 | 11.1 | 78 | 39 | 6.32 | clear | collected duplicate |
| 10LCMW01DW | 3/23/2006 | 1330 | 5.12 | 285.13 | 11.7 | 83 | 42 | 6.53 | clear | |
| 10LCMW02SW | 3/23/2006 | 1120 | 5.00 | 286.19 | 11.4 | 84 | 43 | 6.59 | clear | |
| 10LCMW02DW | 3/23/2006 | 1155 | 5.56 | 286.03 | 12.0 | 86 | 44 | 6.22 | clear | |
| 10LCMW03SW | 3/22/2006 | 1145 | 4.38 | 286.53 | 11.5 | 86 | 44 | 6.61 | clear | |
| 10LCMW03DW | 3/22/2006 | 1210 | 4.58 | 286.40 | 10.8 | 80 | 40 | 6.21 | clear | |
| 10LCMW04SW | 3/22/2006 | 1015 | 4.31 | 287.32 | 9.8 | 75 | 38 | 6.1 | clear | |
| 10LCMW04DW | 3/22/2006 | 1050 | 5.00 | 286.79 | 10.8 | 100 | 51 | 6.8 | clear | collected duplicate |
| | | | | | | | | | | |
| 10LCMW05SW | 3/21/2006 | 1325 | 6.23 | 303.88 | 10.8 | 143 | 73 | 7.3 | clear | |
| 10LCMW05DW | 3/21/2006 | 1320 | 0.00 | 310.94 | 10.6 | 139 | 70 | 7.12 | clear | |
| 10LCMW06SW | 3/21/2006 | 1200 | 5.96 | 302.31 | 9.7 | 165 | 84 | 6.48 | clear | |
| 10LCMW07SW | 3/21/2006 | 1225 | 6.55 | 302.37 | 10.4 | 225 | 114 | 7.29 | clear | |
| 10LCMW08SW | 3/21/2006 | 1250 | 6.00 | 304.78 | 10.7 | 164 | 84 | 7.13 | clear | |
| | | | | | | | | | | |
| 10LCMW09SW | 3/22/2006 | 1430 | 5.22 | 342.09 | 9.4 | 28 | 14 | 5.45 | slightly cloudy | |
| 10LCMW10SW | 3/22/2006 | 1405 | 8.74 | 342.73 | 10.3 | 19 | 9 | 5.04 | silty | |
| 10LCMW11SW | 3/22/2006 | 1325 | 6.75 | 338.97 | 10.9 | 351 | 178 | 6.41 | cloudy | |
| 10L4MW01AW | 3/27/2006 | 1300 | 16.12 | 515.28 | 11.5 | 20 | 10 | 5.19 | slightly cloudy | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1st QUARTER 2006
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 10L4MW01BW | 3/27/2006 | 1320 | 12.12 | 517.45 | 11.2 | 14 | 8 | 5.1 | clear | |
| 10L4MW02AW | 3/27/2006 | 1120 | 25.18 | 494.75 | 12.3 | 52 | 25 | 4.72 | slightly cloudy | |
| 10L4MW02BW | 3/27/2006 | 1145 | 31.30 | 487.16 | 12.0 | 82 | 42 | 5.59 | clear | |
| 10L4MW03AW | 3/24/2006 | 1140 | 28.52 | 486.33 | 11.9 | 16 | 8 | 4.95 | clear | |
| 10L4MW03BW | 3/24/2006 | 1100 | 26.02 | 485.45 | 11.7 | 29 | 14 | 5.39 | slightly cloudy | collected duplicate |
| 10L4MW04AW | 3/27/2006 | 1220 | 27.22 | 484.57 | 11.5 | 12 | 6 | 5.28 | clear | |
| 10L4MW05AW | 3/27/2006 | 1045 | 23.35 | 487.56 | 10.7 | 18 | 8 | 5.38 | clear | |
| 10L4MW07BW | 3/24/2006 | 1230 | 38.90 | 441.52 | 10.5 | 25 | 12 | 5.53 | clear | |
| 10L4MW17W | 3/24/2006 | 1330 | 9.86 | 351.62 | 10.3 | 238 | 121 | 7.04 | clear | |
| 10L4MW18W | 3/24/2006 | 1300 | 11.06 | 351.78 | 10.9 | 144 | 74 | 5.81 | slightly cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 2nd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Alkalinity (CO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | | |
| 11LCMW01SW | 6/26/2006 | Lacamas Cr. | ND | 0.32 | 0.02 | 0.07 | 5.28 | 5.28 | 0.32(E) | ND | 3.38(E) | 0.59 | 0.10 | 0.01 | 3.27(E) | ND | ND | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW01DW | 6/26/2006 | Lacamas Cr. | ND | 0.57 | ND | 0.15 | 1.57 | 1.57 | 0.17(E) | ND | 1.67(E) | 0.45 | 0.07 | ND | 3.8(E) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5 | 47 | ND | sulfate as $SO_4$ 1.5 mg/L; chloride 1.6 mg/L |
| 11LCMW02SW | 6/26/2006 | Lacamas Cr. | 0.55 | 0.66 | ND | 0.11 | 0.71 | 0.71 | 0.047(E) | ND | 0.85(E) | 0.35 | 0.04 | ND | 1.63(E) | nt | nt | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 42 | ND | chloride 1.4 mg/L |
| 11LCMW02DW | 6/26/2006 | Lacamas Cr. | ND | 0.58 | ND | 0.07 | 1.37 | 1.37 | 0.072(E) | ND | 1.91(E) | 0.29 | 0.07 | ND | 5.57(E) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3 | 44 | ND | nitrate as N 0.22 mg/L; sulfate as $SO_4$ 1.1 mg/L; chloride 1.9 mg/L |
| 11LCMW03SW | 6/27/2006 | Lacamas Cr. | ND | 0.24 | ND | 0.02 | 0.49 | 0.49 | 0.02 | ND | 0.58 | ND | ND | ND | 0.37 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 41 | ND | nitrate as N 0.22 mg/L; chloride 1.3 mg/L |
| 11LCMW03DW | 6/27/2006 | Lacamas Cr. | 0.39 | 0.63 | ND | 0.04 | 0.65 | 0.65 | 0.03 | ND | 0.72 | ND | ND | ND | 0.55 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2 | 46 | ND | nitrate as N 0.31 mg/L; sulfate as $SO_4$ 1.1 mg/L; chloride 1.7 mg/L |
| 11LCMW04SW | 6/26/2006 | Lacamas Cr. | 0.09 | 0.36 | 0.09 | 0.22 | 3.65 | 3.65 | 0.89(E) | ND | 3.4(E) | 0.27 | 0.06 | 0.03 | 7.35(E) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 57 | 39 | ND | nitrate as N 0.9 mg/L; chloride 2.4 mg/L |
| 11LCMW04DW | 6/26/2006 | Lacamas Cr. | ND | 1.28 | 0.07 | 0.47 | 4.31 | 4.31 | 1.06(E) | ND | 4.39(E) | 0.21 | 0.11 | 0.02 | 7.65(E) | ND | nt | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 37 | 50 | ND | nitrate as N 0.25 mg/L; sulfate as $SO_4$ 2.4 mg/L; chloride 2.2 mg/L |
| 11LCMW05SW | 6/21/2006 | Demo Area 3 | 0.34 | 0.86 | ND | 1.41 | 4.06 | 4.06 | 0.79 | ND | 3.49 | ND | 0.08 | ND | 8.38(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW05DW | 6/21/2006 | Demo Area 3 | 0.21 | 0.83 | 0.09 | 0.37 | 3.66 | 3.66 | 2.09 | ND | 3.87 | ND | 0.05 | 0.01 | 5.17(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW06SW | 6/21/2006 | Demo Area 3 | ND | 2.46 | ND | 0.09 | 1.07 | 1.07 | 0.40 | ND | 2.39 | ND | ND | ND | 4.3(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW07SW | 6/21/2006 | Demo Area 3 | 0.14 | 3.01 | ND | 0.22 | 2.44 | 2.44 | 0.32 | ND | 2.4 | ND | 0.03 | ND | 7.66(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW08SW | 6/21/2006 | Demo Area 3 | 0.09 | 0.94 | ND | 0.48 | 2.94 | 2.94 | 0.83 | 0.04 | 2.8 | ND | 0.03 | ND | 7.46(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW09SW | 6/21/2006 | Demo Area 2 | ND | 0.30 | 0.04 | 0.40 | 3.48 | 3.48 | 2.38 | ND | 2.58 | ND | 0.03 | ND | 10.4(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW10SW | 6/21/2006 | Demo Area 2 | ND | 0.63 | 0.22 | 0.62 | 6.05 | 6.05 | 3.51 | ND | 5.75 | ND | 0.04 | 0.02 | 17.8(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11LCMW11SW | 6/21/2006 | Demo Area 2 | ND | **5.89** | 0.06 | 0.37 | 4.56 | 4.56 | 1.78 | ND | 3.92 | ND | 0.05 | ND | 9.62(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11L4MW01AW | 6/23/2006 | Landfill 4 | ND | 0.51 | 0.09 | 0.31 | 6.78 | 6.78 | 1.11(E) | ND | 6.37(E) | 0.74 | 0.11 | 0.02 | 23.1(E) | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2.2 | nt | nt | nt | nt | nt | nt |
| 11L4MW01BW | 6/23/2006 | Landfill 4 | ND | 0.32 | 0.02 | 0.07 | 5.28 | 5.28 | 0.32(E) | ND | 3.38(E) | 0.59 | 0.10 | 0.01 | 3.27(E) | ND | ND | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 11L4MW02AW | 6/22/2006 | Landfill 4 | 0.11 | ND | 0.07 | 0.65 | 8.9 | 8.9 | 0.30 | ND | 6.33 | 0.23 | 0.03 | ND | 7.72(E_ | ND | nt | nt | nt | nt | nt | 3.1 | 21 | ND | ND | nt | 180 | nt | nt | nt | nt | nt | nt |
| 11L4MW02BW | 6/22/2006 | Landfill 4 | ND | 0.04 | 0.06 | 0.37 | 3.65 | 3.65 | 1.06 | ND | 3.25 | 0.26 | ND | ND | 5.53(E) | Detect: see VOC table | nt | nt | nt | nt | nt | 3.7 | 92(E) | ND | ND | nt | 400 | nt | nt | nt | nt | nt | nt |
| 11L4MW03AW | 6/22/2006 | Landfill 4 | ND | ND | 0.04 | 0.12 | 6.23 | 6.23 | 2.68 | ND | 4.11 | ND | 0.09 | ND | 7.95(E) | ND | nt | nt | nt | nt | nt | ND | 10 | ND | ND | nt | 97 | nt | nt | nt | nt | nt | nt |
| 11L4MW03BW | 6/22/2006 | Landfill 4 | ND | ND | 0.07 | 0.36 | 10.8 | 10.8 | 0.81 | ND | 6.99 | ND | 0.07 | ND | 6.18(E) | ND | nt | nt | nt | nt | nt | ND | 2.9 | ND | ND | nt | 51 | nt | nt | nt | nt | nt | nt |
| 11L4MW04AW | 6/22/2006 | Landfill 4 | ND | ND | 0.06 | 0.21 | 7.37 | 7.37 | 0.26 | ND | 21.9 | ND | 0.06 | 0.01 | 8.81(E) | ND | nt | nt | nt | nt | nt | ND | 1.5 | ND | ND | nt | 20 | nt | nt | nt | nt | nt | nt |
| 11L4MW05AW | 6/22/2006 | Landfill 4 | 0.08 | 0.50 | 0.22 | 0.48 | 8.48 | 8.48 | 2.46 | ND | 7.76 | ND | 0.11 | 0.02 | 32.8(E) | Detect: see VOC table | nt | nt | nt | nt | nt | ND | 3.4 | ND | ND | nt | 29 | nt | nt | nt | nt | nt | nt |
| 11L4MW07BW | 6/23/2006 | Landfill 4 | 0.15 | 0.77 | 0.03 | 0.64 | 6.29 | 6.29 | 0.36(E) | ND | 5.43(E) | 0.92 | 0.20 | 0.02 | 7.35(E) | ND | nt | nt | nt | nt | nt | ND | 0.64 | ND | ND | nt | 2.3 | nt | nt | nt | nt | nt | nt |
| 11L4MW17W | 6/23/2006 | Landfill 4 | 0.48 | 0.77 | 0.02 | 0.03 | 2.34 | 2.34 | 0.52(E) | ND | 3.38(E) | ND | ND | 0.01 | 2.97(E) | Detect: see VOC table | nt | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 11L4MW18W | 6/23/2006 | Landfill 4 | 0.80 | 1.88 | 0.38 | 1.23 | 24 | 24 | 8.78(E) | ND | 40.8(E) | ND | 0.44 | 0.13 | 74.8(E) | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11LCMW340W (field duplicate of 11LCMW07SW) | 6/21/2006 | Demo Area 3 | 0.16 | 3.22 | ND | 0.60 | 3.84 | 3.84 | 0.79 | 0.05 | 3.06 | ND | 0.04 | ND | 5.74E | ND | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt |
| 11L4MW345W (field duplicate of 11L4MW02BW) | 6/22/2006 | Landfill 4 | ND | 0.06 | 0.06 | 0.41 | 4.39 | 4.39 | 2.3 | 0.06 | 3.46 | 0.24 | 0.06 | 0.01 | 9.3(E) | Detect: see VOC table | nt | nt | nt | nt | nt | 3.7 | 90(E) | ND | ND | nt | 390 | nt | nt | nt | nt | nt | nt |
| 11LCM355W (field duplicate of 11LCMW03SW) | 6/27/2006 | Lacamas Cr. | ND | 0.25 | ND | ND | 1.26 | 1.26 | 0.01 | ND | 0.57 | ND | ND | ND | ND | nt | nt | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3 | 42 | ND | nitrate as N 0.22 mg/L; chloride 1.5 mg/L |
| 11LCMW360W (field rinsate; deionized water) | 6/27/2006 | Field Office | 0.45 | ND | ND | ND | 0.47 | 0.47 | 0.02 | ND | 0.10 | ND | ND | ND | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | none above detection limits |
| Trip Blank TB-1 | 6/22/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.013 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J or E = value estimated
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** Print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 2nd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | |
| 11LCMW01SW | 6/26/2006 | Lacamas Cr. | ND | 0.21 | ND | 0.15 | 0.23 | 0.14(E) | 0.005(E) | ND | 0.69(E) | 0.13 | ND | ND | 3.13(E) | ND |
| 11LCMW01DW | 6/26/2006 | Lacamas Cr. | ND | 0.42 | ND | 0.34 | 0.18 | 0.19(E) | 0.01(E) | ND | 0.95(E) | 0.14 | ND | ND | 5.64(E) | ND |
| 11LCMW02SW | 6/26/2006 | Lacamas Cr. | ND | 0.45 | ND | 0.16 | 0.17 | 0.15(E) | 0.014(E) | ND | 0.68(E) | ND | ND | ND | 3.94(E) | ND |
| 11LCMW02DW | 6/26/2006 | Lacamas Cr. | ND | 0.42 | ND | 0.40 | 0.60 | 0.19(E) | 0.021(E) | ND | 1.27(E) | ND | ND | ND | 4.08(E) | ND |
| 11LCMW03SW | 6/27/2006 | Lacamas Cr. | ND | 0.23 | ND | 0.02 | 0.20 | ND | 0.02 | ND | 0.75 | ND | ND | ND | 0.03 | ND |
| 11LCMW03DW | 6/27/2006 | Lacamas Cr. | 0.29 | 0.63 | ND | ND | 0.25 | ND | 0.03 | ND | 0.69 | ND | ND | ND | 0.41 | ND |
| 11LCMW04SW | 6/26/2006 | Lacamas Cr. | ND | 0.08 | ND | 0.08 | 0.34 | 0.19(E) | 0.03(E) | ND | 0.62(E) | ND | ND | ND | 4.00(E) | ND |
| 11LCMW04DW | 6/26/2006 | Lacamas Cr. | ND | 0.94 | ND | 0.16 | 0.36 | 0.18(E) | ND | ND | 1.61(E) | ND | ND | ND | 2.87(E) | ND |
| 11LCMW05SW | 6/21/2006 | Demo Area 3 | ND | 0.72 | ND | 0.26 | 0.68 | 0.44 | 0.07 | ND | 1.17 | 0.27 | ND | ND | 4.12(E) | nt |
| 11LCMW05DW | 6/21/2006 | Demo Area 3 | 0.09 | 0.61 | ND | 0.10 | 0.93 | 0.29 | 0.05 | ND | 2.78 | 0.17 | ND | ND | 5.02(E) | nt |
| 11LCMW06SW | 6/21/2006 | Demo Area 3 | 0.12 | 2.28 | ND | 0.37 | 0.45 | 0.75 | 0.08 | ND | 2.08 | ND | ND | ND | 4.74(E) | nt |
| 11LCMW07SW | 6/21/2006 | Demo Area 3 | ND | 2.8 | ND | 0.30 | 1.54 | 0.36 | 0.01 | ND | 2.51 | 0.16 | ND | ND | 2.54(E) | nt |
| 11LCMW08SW | 6/21/2006 | Demo Area 3 | ND | 0.89 | ND | 0.61 | 1.20 | 0.49 | 0.03 | ND | 1.46 | 0.26 | ND | ND | 5.53(E) | nt |
| 11LCMW09SW | 6/21/2006 | Demo Area 2 | ND | ND | ND | 0.25 | 0.88 | 0.67 | 0.07 | ND | 1.4 | ND | ND | ND | 3.71(E) | nt |
| 11LCMW10SW | 6/21/2006 | Demo Area 2 | 0.31 | ND | 0.02 | 0.42 | 0.52 | 1.22 | 0.06 | ND | 1.15 | ND | ND | ND | 5.68(E) | nt |
| 11LCMW11SW | 6/21/2006 | Demo Area 2 | 0.16 | 3.86 | ND | 0.04 | 0.37 | 0.37 | 0.04 | ND | 1.57 | 0.17 | ND | ND | 3.34(E) | nt |
| 11L4MW01AW | 6/23/2006 | Landfill 4 | ND | ND | 0.04 | 0.39 | 0.95 | 0.22(E) | 0.017(E) | ND | 2.13(E) | 0.14 | ND | ND | 5.58(E) | nt |
| 11L4MW01BW | 6/23/2006 | Landfill 4 | ND | ND | 0.03 | 0.35 | 0.95 | 0.15(E) | 0.014(E) | ND | 1.63(E) | ND | ND | ND | 3.29(E) | nt |
| 11L4MW02AW | 6/22/2006 | Landfill 4 | ND | ND | 0.06 | 0.39 | 2.58 | 0.34 | 0.06 | ND | 3.29 | 0.23 | ND | ND | 4.66(E) | nt |
| 11L4MW02BW | 6/22/2006 | Landfill 4 | ND | ND | 0.05 | 0.22 | 2.91 | 0.90 | 0.02 | ND | 3.66 | 0.28 | ND | ND | 4.85(E) | nt |
| 11L4MW03AW | 6/22/2006 | Landfill 4 | ND | ND | 0.02 | 0.35 | 0.82 | 0.36 | 0.02 | ND | 1.99 | ND | ND | ND | 6.31(E) | nt |
| 11L4MW03BW | 6/22/2006 | Landfill 4 | ND | ND | ND | 0.10 | 1.87 | 0.28 | 0.06 | ND | 4.11 | 0.21 | ND | ND | 5.58(E) | nt |
| 11L4MW04AW | 6/22/2006 | Landfill 4 | ND | ND | ND | 0.12 | 1.48 | 0.22 | 0.02 | ND | 1.82 | 0.15 | ND | ND | 3.53(E) | nt |
| 11L4MW05AW | 6/22/2006 | Landfill 4 | ND | ND | 0.03 | 0.12 | 1.07 | 0.40 | 1.47 | ND | 2.2 | ND | ND | 0.01 | 6.40(E) | nt |
| 11L4MW07BW | 6/23/2006 | Landfill 4 | 0.20 | 0.18 | ND | 0.06 | 0.98 | 0.31(E) | 0.041(E) | ND | 2.61(E) | 0.15 | ND | ND | 4.58(E) | nt |
| 11L4MW17W | 6/23/2006 | Landfill 4 | ND | 0.81 | ND | 0.03 | 0.69 | 0.53(E) | 0.02(E) | ND | 1.83(E) | 0.25 | ND | ND | 5.33(E) | nt |
| 11L4MW18W | 6/23/2006 | Landfill 4 | 0.74 | 0.10 | ND | 0.33 | 1.30 | 0.22(E) | 0.014(E) | ND | 1.56(E) | 0.23 | ND | ND | 3.95(E) | nt |
| | | | | | | | | | | | | | | | | |
| 11LCMW340W (field duplicate of 11LCMW07SW) | 6/21/2006 | Demo Area 3 | ND | 2.84 | ND | 0.40 | 1.22 | 0.51 | 0.029 | ND | 1.88 | 0.17 | ND | ND | 4.01(E) | nt |
| | | | | | | | | | | | | | | | | |
| 11L4MW345W (field duplicate of 11L4MW02BW) | 6/22/2006 | Landfill 4 | ND | 0.07 | 0.03 | 0.32 | 4.43 | 0.39 | 0.014 | ND | 5.11 | 0.49 | ND | ND | 4.1(E) | nt |
| 11LCM355W (field duplicate of 11LCMW03SW) | 6/27/2006 | Lacamas Cr. | ND | 0.27 | ND | ND | 0.15 | ND | 0.021 | ND | 0.64 | ND | ND | ND | ND | ND |
| 11LCMW360W (field rinsate; deionized water) | 6/27/2006 | Field Office | 0.37 | ND | ND | ND | 0.31 | ND | 0.016 | ND | 0.10 | ND | ND | ND | ND | ND |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.013 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
J or E = value estimated
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 2nd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acetone | Benzene | Trichlorofluoromethane | Tetrachloroethene (PCE) | 1,1,2,2 Tetrachloroethane | Trichloroethene (TCE) | Chloroform | |
| 11L4MW02BW | 6/22/2006 | Landfill 4 | 1.8(J) | 0.3(J) | 0.7(J) | 0.8(J) | ND | ND | ND | nt |
| 11L4MW05AW | 6/22/2006 | Landfill 4 | ND | ND | ND | 0.6(J) | ND | ND | ND | nt |
| 11L4MW17W | 6/23/2006 | Landfill 4 | 1.5(J) | ND | ND | ND | ND | ND | ND | nt |
| 11L4MW345W (field duplicate of 11L4MW02BW) | 6/22/2006 | Landfill 4 | 1.9(J) | 0.3(J) | 0.7(J) | 0.8(J) | 0.2(J) | 0.2(J) | ND | nt |
| 11LCMW360W (field rinsate; deionized water) | 6/27/2006 | Field Office | 2.9(J) | ND | ND | ND | ND | ND | 0.8(J) | ND |
| | | | | | | | | | | |
| Lab detection limit | | | 5.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | 1.0 | 2.0 |
| | | | | | | | | | | |
| Method A Cleanup Levels (µg/L) | | | n/a | n/a | 200 | n/a | 5 | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Acetone is a common laboratory solvent and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2006
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 11LCMW01SW | 6/26/06 | 1230 | 5.85 | 284.31 | 11.1 | 78 | 39 | 6.32 | clear | |
| 11LCMW01DW | 6/26/06 | 1300 | 6.13 | 284.12 | 11.7 | 83 | 42 | 6.53 | clear | |
| 11LCMW02SW | 6/26/06 | 1120 | 6.68 | 284.51 | 11.4 | 84 | 43 | 6.59 | clear | |
| 11LCMW02DW | 6/26/06 | 1140 | 7.24 | 284.35 | 12.0 | 86 | 44 | 6.22 | clear | collected duplicate |
| 11LCMW03SW | 6/27/06 | 1150 | 6.30 | 284.61 | 11.5 | 86 | 44 | 6.61 | clear | |
| 11LCMW03DW | 6/27/06 | 1230 | 6.44 | 284.54 | 10.8 | 80 | 40 | 6.21 | clear | MS/MSD |
| 11LCMW04SW | 6/26/06 | 1050 | 6.14 | 285.49 | 9.8 | 75 | 38 | 6.1 | clear | |
| 11LCMW04DW | 6/26/06 | 1030 | 8.94 | 282.85 | 10.8 | 100 | 51 | 6.8 | clear | |
| | | | | | | | | | | |
| 11LCMW05SW | 6/21/2006 | 1310 | 7.15 | 302.96 | 10.8 | 143 | 73 | 7.3 | clear | |
| 11LCMW05DW | 6/21/2006 | 1250 | 0.00 | 310.94 | 10.6 | 139 | 70 | 7.12 | clear | |
| 11LCMW06SW | 6/21/2006 | 1120 | 7.82 | 300.45 | 9.7 | 165 | 84 | 6.48 | clear | |
| 11LCMW07SW | 6/21/2006 | 1200 | 7.16 | 301.76 | 10.4 | 225 | 114 | 7.29 | clear | collected duplicate |
| 11LCMW08SW | 6/21/2006 | 1225 | 6.97 | 303.81 | 10.7 | 164 | 84 | 7.13 | clear | |
| | | | | | | | | | | |
| 11LCMW09SW | 6/21/2006 | 1450 | 5.84 | 341.47 | 9.4 | 28 | 14 | 5.45 | slightly cloudy | |
| 11LCMW10SW | 6/21/2006 | 1425 | 9.61 | 341.86 | 10.3 | 19 | 9 | 5.04 | silty | |
| 11LCMW11SW | 6/21/2006 | 1405 | 7.37 | 338.35 | 10.9 | 351 | 178 | 6.41 | cloudy | |
| | | | | | | | | | | |
| 11L4MW01AW | 6/23/2006 | 1310 | 16.64 | 514.76 | 11.5 | 20 | 10 | 5.19 | slightly cloudy | |
| 11L4MW01BW | 6/23/2006 | 1330 | 13.34 | 516.23 | 11.2 | 14 | 8 | 5.1 | clear | |

# TABLE 7
## FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2006
## CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 11L4MW02AW | 6/23/2006 | 1200 | 27.22 | 492.71 | 12.3 | 52 | 25 | 4.72 | slightly cloudy | |
| 11L4MW02BW | 6/23/2006 | 1220 | 32.77 | 485.69 | 12.0 | 82 | 42 | 5.59 | clear | collected duplicate |
| 11L4MW03AW | 6/23/2006 | 1405 | 29.65 | 485.20 | 11.9 | 16 | 8 | 4.95 | clear | |
| 11L4MW03BW | 6/23/2006 | 1430 | 27.10 | 484.37 | 11.7 | 29 | 14 | 5.39 | slightly cloudy | |
| 11L4MW04AW | 6/22/2006 | 1120 | 27.88 | 483.91 | 11.5 | 12 | 6 | 5.28 | clear | |
| 11L4MW05AW | 6/22/2006 | 1330 | 24.22 | 486.69 | 10.7 | 18 | 8 | 5.38 | clear | |
| 11L4MW07BW | 6/23/2006 | 1230 | 39.76 | 440.66 | 10.5 | 25 | 12 | 5.53 | clear | |
| 11L4MW17W | 6/23/2006 | 1135 | 10.56 | 350.92 | 10.3 | 238 | 121 | 7.04 | clear | |
| 11L4MW18W | 6/23/2006 | 1200 | 11.64 | 351.20 | 10.9 | 144 | 74 | 5.81 | slightly cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| LC-MW05S | AHA-374 | Demo Area 3 | 40.40 | 22-37 | 310.10 | LC-MW05S |
| LC-MW10D | AHA-360 | Demo Area 3 | 65.20 | 53-63 | 309.94 | LC-MW05D |
| LC-MW11S | AHA-372 | Demo Area 3 | 17.54 | 12-15 | 308.27 | LC-MW06S |
| LC-MW12S | AHA-371 | Demo Area 3 | 40.44 | 22-37 | 308.92 | LC-MW07S |
| LC-MW13S | AHA-373 | Demo Area 3 | 40.10 | 22-37 | 309.78 | LC-MW08S |
| | | | | | | |
| LC-MW14 | AHA-369 | Demo Area 2 | 19.64 | 7-17 | 347.31 | LC-MW09S |
| LC-MW15 | AHA-370 | Demo Area 2 | 26.16 | 9-24 | 351.47 | LC-MW10S |
| LC-MW16 | AHA-368 | Demo Area 2 | 19.50 | 7-17 | 345.72 | LC-MW11S |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 3rd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Alkalinity (CO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | | |
| 12LCMW01SW | 9/28/2006 | Lacamas Cr. | ND | 0.20(J) | ND | 0.05(J) | 1.03 | 0.13(J) | ND | 0.057(J) | 1.61 | 0.28(J) | ND | ND | 2.07(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | ND | 43 | ND | chloride 1.7 mg/L |
| 12LCMW01DW | 9/28/2006 | Lacamas Cr. | ND | 0.38(J) | ND | 0.10(J) | 0.70(J) | 0.15(J) | ND | 0.117(J) | 1.35 | 0.40(J) | ND | ND | 1.59(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 4.5 | ND | 44 | ND | sulfate as $SO_4$ 1.6 mg/L; chloride 1.8 mg/L |
| 12LCMW02SW | 9/28/2006 | Lacamas Cr. | 0.38(J) | 0.44(J) | ND | 0.05(J) | 0.42(J) | 0.05(J) | ND | 0.033(J) | 0.83(J) | 0.22(J) | ND | ND | 2.31(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | ND | 43 | ND | chloride 1.8 mg/L |
| 12LCMW02DW | 9/28/2006 | Lacamas Cr. | ND | 0.49(J) | 0.02(J) | 0.39(J) | 0.98(J) | 0.83(J) | 0.61(J) | 0.049(J) | 3.96 | 0.42(J) | ND | ND | 5.72(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 30 | 44 | ND | nitrate as N 0.22 mg/L; chloride 1.9 mg/L |
| 12LCMW03SW | 9/28/2006 | Lacamas Cr. | ND | 0.41(J) | ND | 0.06(J) | 0.33(J) | 0.07(J) | ND | 0.035(J) | 0.74(J) | 0.46(J) | ND | ND | 1.55(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 2.1 | ND | 42 | ND | nitrate as N 0.27 mg/L; chloride 1.6 mg/L |
| 12LCMW03DW | 9/28/2006 | Lacamas Cr. | ND | 0.72(J) | ND | 0.04(J) | 0.39(J) | 0.10(J) | ND | 0.035(J) | 0.93(J) | 0.52(J) | ND | ND | 1.82(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | ND | 46 | ND | nitrate as N 0.31 mg/L; chloride 1.8 mg/L |
| 12LCMW04SW | 9/29/2006 | Lacamas Cr. | ND | .022 (J) | ND | 0.68 (J) | 1.10 (J) | 0.35(J) | 0.31(J) | 0.067(J) | 1.07 | 0.11(J) | ND | 0.009(J) | 3.68(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | 1.2 | 7 | 38 | ND | nitrate as N 0.79 mg/L; chloride 2.4 mg/L |
| 12LCMW04DW | 9/29/2006 | Lacamas Cr. | ND | 1.23 | ND | 0.17(J) | 3.19(J) | 2.11 | 0.70(J) | 0.24 | 2.77 | ND | ND | 0.01(J) | 7.87(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 10 | 50 | ND | nitrate as N 0.24 mg/L; sulfate as $SO_4$ 2.0 mg/L; chloride 2.1 mg/L |
| 12L4MW01AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2.2 | nt | nt | nt | nt | nt | nt |
| 12L4MW01BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 12L4MW02AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | 4.1 | 28 | ND | ND | nt | 280 | nt | nt | nt | nt | nt | nt |
| 12L4MW02BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | 3.6 | 96(E) | ND | ND | nt | 530 | nt | nt | nt | nt | nt | nt |
| 12L4MW03AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 9.9 | ND | ND | nt | 120 | nt | nt | nt | nt | nt | nt |
| 12L4MW03BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 4 | ND | ND | nt | 55 | nt | nt | nt | nt | nt | nt |
| 12L4MW04AW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 1.2 | ND | ND | nt | 25 | nt | nt | nt | nt | nt | nt |
| 12L4MW05AW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | ND | 3.8 | ND | ND | nt | 35 | nt | nt | nt | nt | nt | nt |
| 12L4MW07BW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2.3 | nt | nt | nt | nt | nt | nt |
| 12L4MW17W | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 12L4MW18W | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12L4MW370W (field duplicate of 12L4MW07BW) | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 2 | nt | nt | nt | nt | nt | nt |
| MS/MSD (field duplicate of 12LCMW04DW) | 9/29/2006 | Lacamas Cr. | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | ND | ND | ND | ND | nt | nt | ND | ND | ND | ND | 0.33 | 0.33 | 11 | 51 | ND | nt |
| 12LCMW0360W (field duplicate of 12LCMW04DW) | 9/29/2006 | Lacamas Cr. | 0.12(J) | 1.23 | ND | 0.09(J) | 1.68(J) | 0.99(J) | 0.26(J) | 0.029(J) | 1.89 | ND | ND | ND | 4.39(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 17 | 52 | ND | nitrate as N 0.24 mg/L; sulfate as $SO_4$ 2.0 mg/L; chloride 2.1 mg/L |
| 12LCMW0365W (field rinsate; deionized water) | 9/29/2006 | Field Office | ND | ND | ND | 0.022(J) | ND | 0.16(J) | 0.07(J) | 0.197(J) | 0.63(J) | ND | ND | ND | 2.20(J) | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3 | ND | ND | none above detection limits |
| Trip Blank TB-1 | 9/27/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank TB-2 | 9/29/2006 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.02 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J or E = value estimated
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** Print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 3rd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | |
| 12LCMW01SW | 9/28/2006 | Lacamas Cr. | ND | 0.20(J) | ND | 0.03(J) | 0.31(J) | 0.05(J) | ND | 0.049(J) | 1.48 | 0.23(J) | ND | ND | 2.78(J) | ND |
| 12LCMW01DW | 9/28/2006 | Lacamas Cr. | ND | 0.35(J) | ND | 0.05(J) | 0.09(J) | 0.07(J) | ND | 0.06(J0 | 1.23 | 0.42(J) | ND | ND | 2.28(J) | 4.5 |
| 12LCMW02SW | 9/28/2006 | Lacamas Cr. | 0.12(J) | 0.49(J) | 0.03(J) | 0.08(J) | 0.25(J) | 0.15(J) | 0.02(J) | 0.067(J) | 1.03 | 0.41(J) | 0.04(J) | 0.03(J) | 2.87(J) | 1.6 |
| 12LCMW02DW | 9/28/2006 | Lacamas Cr. | ND | 0.37(J) | ND | 0.07(J) | 0.19(J) | 0.04(J) | ND | 0.08(J) | 2.13 | ND | ND | ND | 4.06(J) | ND |
| 12LCMW03SW | 9/28/2006 | Lacamas Cr. | 0.59(J) | 0.40(J) | ND | 0.056(J) | ND | 0.27(J) | ND | 0.05(J) | 0.73(J) | 0.56(J) | ND | ND | 2.67(J) | 2.1 |
| 12LCMW03DW | 9/28/2006 | Lacamas Cr. | ND | 0.80(J) | ND | 0.03(J) | 0.10(J) | 0.06(J) | ND | 0.13(J) | 1.13 | 0.53(J) | ND | ND | 2.26(J) | ND |
| 12LCMW04SW | 9/29/2006 | Lacamas Cr. | ND | 0.09(J) | ND | ND | 0.07(J) | 0.14(J) | 0.06(J) | 0.04(J) | 1.57 | ND | ND | ND | 4.22(J) | 1.2 |
| 12LCMW04DW | 9/29/2006 | Lacamas Cr. | ND | 1.23 | ND | 0.04(J) | ND | 0.18(J) | 0.043(J) | 0.17(J) | 1.31 | ND | ND | ND | 5.86(J) | ND |
| 12L4MW01AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW01BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW02AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW02BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW03AW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW03BW | 9/26/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW04AW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW05AW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW07BW | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW17W | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 12L4MW18W | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | |
| 12L4MW370W (field duplicate of 12L4MW07BW) | 9/27/2006 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| MS/MSD (field duplicate of 12LCMW04DW) | 9/29/2006 | Lacamas Cr. | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND |
| 12LCMW0360W (field duplicate of 12LCMW04DW) | 9/29/2006 | Lacamas Cr. | 0.32(J) | 1.28 | ND | 0.02(J) | 2.99(J) | 0.28(J) | 0.021(J) | 0.064(J) | 2.28 | ND | ND | ND | 3.12(J) | ND |
| 12LCMW0365W (field rinsate; deionized water) | 9/29/2006 | Field Office | ND | 1.38 | ND | 0.49(J) | 1.60(J) | 0.77(J) | 0.41(J) | 0.043(J) | 13.20 | ND | ND | ND | 50.1 | ND |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.013 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 1.0 |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | | | | | | | | | | | | | | | |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
J or E = value estimated
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS - 3rd QUARTER 2006**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/L) | | | | | | | | | | | SVOC (µg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acetone | 2-Butanone | 1,1-Dichloroethane | 1,1-Dichloroethene | Dichlorodifluoromethane | Trichlorofluoromethane | Tetrachloroethene (PCE) | 1,1,1-Trichloroethane | 1,1,2,2 Tetrachloroethane | Tetrachloroethene | Chloroform | |
| 12L4MW02BW | 9/26/2006 | Landfill 4 | ND | ND | 38 | 21 | 150 | 0.65(J) | ND | 83 | ND | 0.72(J) | ND | nt |
| 12L4MW05AW | 9/27/2006 | Landfill 4 | ND | ND | ND | ND | ND | ND | 0.6(J) | ND | ND | 0.58(J) | ND | nt |
| 12L4MW17W | 9/27/2006 | Landfill 4 | 1.9(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | nt |
| 12LCMW0365W (field rinsate; deionized water) | 9/29/2006 | Field Office | ND | 1.4 (J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lab detection limit | | | 5.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 5.0 | 1.0 | 2.0 |
| Method A Cleanup Levels (µg/L) | | | n/a | n/a | | | | 200 | n/a | | 5 | n/a | n/a | n/a |

**Note:**
Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Acetone is a common laboratory solvent and may indicate laboratory contamination.

# TABLE 7
# FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 3rd QUARTER 2006
# CAMP BONNEVILLE, VANCOUVER, WASHINGTON

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 12LCMW01SW | 9/28/2006 | 1200 | 6.64 | 283.52 | 13.8 | 76 | 39 | 6.08 | clear | |
| 12LCMW01DW | 9/28/2006 | 1235 | 7.16 | 283.09 | 12.9 | 79 | 40 | 6.06 | clear | |
| 12LCMW02SW | 9/28/2006 | 1320 | 7.68 | 283.51 | 12.9 | 76 | 35 | 7.00 | clear | |
| 12LCMW02DW | 9/28/2006 | 1345 | 8.36 | 283.23 | 13.2 | 85 | 43 | 6.79 | clear | |
| 12LCMW03SW | 9/28/2006 | 1425 | 7.28 | 283.63 | 13.2 | 78 | 39 | 6.52 | clear | |
| 12LCMW03DW | 9/28/2006 | 1445 | 7.60 | 283.38 | 12.4 | 87 | 43 | 6.66 | clear | |
| 12LCMW04SW | 9/29/2006 | 1120 | 7.24 | 284.39 | 12.6 | 79 | 40 | 6.13 | clear | |
| 12LCMW04DW | 9/29/2006 | 1150 | 7.68 | 284.11 | 11.9 | 99 | 50 | 6.75 | clear | collected duplicate and MS/MSD |
| 12L4MW01AW | 9/26/2006 | 1135 | 17.22 | 514.18 | 12.6 | 26 | 13 | 4.82 | clear | |
| 12L4MW01BW | 9/26/2006 | 1215 | 14.50 | 515.07 | 12.1 | 18 | 9 | 4.27 | clear | |
| 12L4MW02AW | 9/26/2006 | 1345 | 29.18 | 490.75 | 13.9 | 21 | 10 | 4.00 | clear | |
| 12L4MW02BW | 9/26/2006 | 1415 | 34.26 | 484.20 | 13.4 | 23 | 11 | 4.62 | clear | |
| 12L4MW03AW | 9/26/2006 | 1250 | 30.90 | 483.95 | 13.3 | 15 | 7 | 4.09 | clear | |
| 12L4MW03BW | 9/26/2006 | 1320 | 28.64 | 482.83 | 12.6 | 26 | 13 | 4.37 | clear | |
| 12L4MW04AW | 9/27/2006 | 1030 | 28.90 | 482.89 | 12.0 | 13 | 6 | 4.66 | cloudy | |
| 12L4MW05AW | 9/27/2006 | 1110 | 25.42 | 485.49 | 11.8 | 20 | 11 | - | clear | |
| 12L4MW07BW | 9/27/2006 | 1215 | 40.80 | 439.62 | 11.5 | 26 | 12 | 5.12 | clear | collected duplicate |
| 12L4MW17W | 9/27/2006 | 1320 | 11.18 | 350.30 | 13.3 | 265 | 134 | - | clear | |
| 12L4MW18W | 9/27/2006 | 1255 | 12.10 | 350.74 | 13.2 | 144 | 58 | - | slightly cloudy | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
Field parameters of temperature, conductivity, and pH measured with a Hanna Model HI 991300 meter.
- = no reading; parameter meter malfunction

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | LA-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | LA-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 1ST QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Alkalinity (CO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | | |
| 14LCMW01SW | 3/21/2007 | Lacamas Cr. | ND | 0.256(J) | 0.217(J) | ND | 1.39(J) | ND | ND | ND | .719(J) | ND | ND | ND | 1.89(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 4 | 44 | < 4.0 | chloride 1.4 mg/L |
| 14LCMW01DW | 3/21/2007 | Lacamas Cr. | ND | 0.35(J) | ND | ND | 3.06 | ND | ND | 0.066(J) | 1.47 | ND | ND | ND | 2.54(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 46 | < 4.0 | chloride 1.8 mg/L |
| 14LCMW02SW | 3/21/2007 | Lacamas Cr. | ND | 0.504(J) | ND | ND | 0.76(J) | ND | ND | 0.042(J) | 0.763(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2.0 | 44 | < 4.0 | chloride 2.2 mg/L |
| 14LCMW02DW | 3/21/2007 | Lacamas Cr. | 0.172(J) | 0.524(J) | ND | 0.359(J) | 3.77(J) | 1.16(J) | 0.45(J) | 0.052(J) | 3.63 | ND | ND | ND | 5.14(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 22 | 45 | < 4.0 | sulfate as $SO_4$ 1.5 mg/L; chloride 1.8 mg/L |
| 14LCMW03SW | 3/21/2007 | Lacamas Cr. | ND | 0.315(J) | ND | ND | 0.466(J) | ND | ND | ND | 0.577(J) | ND | ND | ND | ND | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 5 | 44 | < 4.0 | nitrate as N 0.22 mg/L; chloride 2.0 mg/L |
| 14LCMW03DW | 3/21/2007 | Lacamas Cr. | ND | 0.568(J) | ND | ND | 1.75(J) | ND | ND | 0.026(J) | 0.898(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 6 | 47 | < 4.0 | nitrate as N 0.4 mg/L; chloride 1.8 mg/L |
| 14LCMW04SW | 3/22/2007 | Lacamas Cr. | 0.383(J) | 0.189(J) | ND | 0.095(J) | 2.97(J) | 1.69(J) | 0.382(J) | 0.128(J) | 2.06 | ND | ND | ND | 5.75(J) | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 22 | 38 | < 4.0 | nitrate as N 0.86 mg/L; chloride 2.3 mg/L |
| 14LCMW04DW | 3/22/2007 | Lacamas Cr. | ND | 1.08 | ND | 0.116(J) | 6.48 | 1.22(J) | 0.22(J) | ND | 3.79 | 0.171(J) | ND | ND | 4.57(J) | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 34 | 52 | < 4.0 | nitrate as N 0.26 mg/L; chloride 2.1 mg/L |
| 14L4MW01AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3.8 | nt | nt | nt | nt | nt | nt |
| 14L4MW01BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 14L4MW02AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | 2.9 | 19 | ND | ND | nt | 150 | nt | nt | nt | nt | nt | nt |
| 14L4MW02BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | 3.7 | 99(E) | ND | ND | nt | 520 | nt | nt | nt | nt | nt | nt |
| 14L4MW03AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 13 | ND | ND | nt | 100 | nt | nt | nt | nt | nt | nt |
| 14L4MW03BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 5.1 | ND | ND | nt | 48 | nt | nt | nt | nt | nt | nt |
| 14L4MW04AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 1.9 | ND | ND | nt | 24 | nt | nt | nt | nt | nt | nt |
| 14L4MW05AW | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | ND | 3.5 | ND | ND | nt | 36 | nt | nt | nt | nt | nt | nt |
| 14L4MW07BW | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 20 | nt | nt | nt | nt | nt | nt |
| 14L4MW17W | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 14L4MW18W | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 14L4MW410W (field duplicate of 14L4MW05AW) | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | ND | 3.9 | ND | ND | nt | 34 | nt | nt | nt | nt | nt | nt |
| RPD for duplicate 14L4MW05AW | | | | | | | | | | | | | | | | | | | | | | 11% | | | | 6% | | | | | | |
| MS/MSD (field duplicate of 14LCMW04DW) | 3/22/2007 | Lacamas Cr. | ND | 1.084 | ND | 0.116(J) | 6.476 | 1.221(J) | 0.022(J) | ND | 3.794 | 0.171(J) | ND | ND | 4.57(J) | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | 0.91 | 0.23 | 0.186 | nt | nt | nt | nitrate as N 0.26 mg/L; sulfate as SO4 1.84 mg/L; chloride 1.81 mg/L |
| 14LCMW405W (field duplicate of 14LCMW01DW) | 3/21/2007 | Lacamas Cr. | ND | 0.37(J) | ND | ND | 2.92(J) | ND | ND | 0.123(J) | 1.63 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 48 | < 4.0 | chloride 1.6 mg/L |
| RPD for duplicate 14LCMW01DW | | | | 6% | | | 5% | | | 60% | 10% | | | | | | | | | | | | | | | | | | 4% | | | |
| 14LCMW400W (field rinsate at well LCMW18; deionized water) | 3/22/2007 | Landfill 4 | ND | ND | ND | ND | 0.494(J) | ND | ND | ND | 0.262(J) | ND | ND | ND | 1.93(J) | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | < 2 | < 2.0 | none above detection limits |
| Trip Blank 1 | 3/19/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 2 | 3/21/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 2 | 3/22/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.02 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.5 µg/L | 1.2 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | 2 - 4 mg/L | see lab data report for limits |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J or E = value estimated
RPD = relative percent difference between sample versus duplicate
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.
**BOLD** Print indicates concentration exceeding WA MTCA Method A Cleanup Level

**TABLE 5. DISSOLVED METALS AND DOC - 1ST QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | |
| 14LCMW01SW | 3/21/2007 | Lacamas Cr. | ND | 0.195(J) | ND | ND | 1.55(J) | ND | ND | 0.043(J) | 1.33 | ND | ND | ND | ND | < 1.0 |
| 14LCMW01DW | 3/21/2007 | Lacamas Cr. | ND | 0.398(J) | ND | ND | 1.07(J) | 0.937(J) | ND | ND | 1.14 | ND | ND | ND | 1.91(J) | < 1.0 |
| 14LCMW02SW | 3/21/2007 | Lacamas Cr. | ND | 0.498(J) | ND | ND | 1.57(J) | ND | ND | 0.046(J) | 1.42 | ND | ND | ND | 1.98(J) | < 1.0 |
| 14LCMW02DW | 3/21/2007 | Lacamas Cr. | ND | 0.466(J) | ND | ND | 1.37(J) | ND | ND | 0.057(J) | 2.25 | ND | ND | ND | ND | < 1.0 |
| 14LCMW03SW | 3/21/2007 | Lacamas Cr. | ND | 0.296(J) | ND | ND | 0.499(J) | ND | ND | ND | 0.928(J) | ND | ND | ND | ND | < 1.0 |
| 14LCMW03DW | 3/21/2007 | Lacamas Cr. | ND | 0.636(J) | ND | ND | 2.16(J) | ND | ND | 0.082(J) | 1.93 | ND | ND | ND | ND | < 1.0 |
| 14LCMW04SW | 3/22/2007 | Lacamas Cr. | 0.096(J) | ND | ND | ND | 0.10(J) | ND | ND | 0.056(J) | 1.18 | ND | ND | ND | ND | < 1.0 |
| 14LCMW04DW | 3/22/2007 | Lacamas Cr. | 0.217(J) | 1.05 | ND | ND | 1.14(J) | ND | ND | 0.068(J) | 1.74 | ND | ND | ND | ND | < 1.0 |
| 14L4MW01AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW01BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW02AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW02BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW03AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW03BW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW04AW | 3/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW05AW | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW07BW | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW17W | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW18W | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 14L4MW410W (field duplicate of 14L4MW05AW) | 3/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| MS/MSD (field duplicate of 14LCMW04DW) | 3/22/2007 | Landfill 4 | 0.217(J) | 1.05 | 0.215 | ND | 1.136 | ND | ND | 0.068(J) | 1.74 | ND | ND | ND | ND | ND |
| 14LCMW405W (field duplicate of 14LCMW01DW) | 3/21/2007 | Lacamas Cr. | ND | 0.359(J) | ND | ND | 0.683(J) | ND | ND | 0.021(J) | 1.33 | ND | ND | ND | ND | ND |
| RPD for duplicate 14LCMW01DW | | | | 10% | | | 44% | | | | 15% | | | | | |
| 14LCMW400W (field rinsate at well LCMW18; deionized water) | 3/22/2007 | Landfill 4 | ND | ND | ND | ND | 0.456(J) | ND | ND | 0.072 | 0.421(J) | ND | ND | ND | ND | ND |
| | | | | | | | | | | | | | | | | |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.013 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 1.0 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
J or E = value estimated
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
RPD = relative percent difference between sample versus duplicate
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS**
**1st QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/l) | | | | | SVOCs (µg/l) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1,1-Dichloroethane | 1,1-Dichloroethene | Dichlorodifluoromethane | 1,1,1-Trichloroethane | Tetrachloroethene | Benzoic Acid | bis(2-Ethylhexyl)phthalate |
| 14L4MW02BW | 3/20/2007 | Landfill 4 | 30 | 17 | 97 | 60 | 0.70(J) | nt | nt |
| 14L4MW05AW | 3/19/2007 | Landfill 4 | ND | ND | ND | ND | 0.48(J) | nt | nt |
| 14LCMW03SW | 3/21/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | 1.2(J,B) |
| 14LCMW04DW | 3/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | 3.3(J) | 1.7(J,B) |
| 14LCMW04SW | 3/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | 0.96(J,B) |
| 14LCMW400W (field rinsate, deionized water) | 3/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | 3.6(J) | 1.3(J,B) |
| 14L4MW410W (field duplicate of 14L4MW05AW) | 3/19/2007 | Landfill 4 | ND | ND | ND | ND | 0.44(J) | ND | ND |
| RPD for duplicate 14L4MW05AW | 3/19/2007 | Landfill 4 | | | | | 9% | | |
| MS/MSD (field duplicate of 14LCMW04DW) | 3/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | 3.3 | 1.67 |
| Lab detection limit | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.3 | 1.7 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
**Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.**
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
RPD = relative percent difference between sample versus duplicate

**TABLE 7**
**FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 1ST QUARTER 2007**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| | | | Field Parameters at Time of Sampling | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in Feet amsl ** | Temp (degrees C) | Conductivity (µS/cm) | Total Dissolved Solids (ppm) | pH | Color and Relative Turbidity | Notes |
| 14LCMW01SW | 3/21/2007 | 1240 | 4.62 | 285.54 | 10.7 | 79 | 39 | 6.95 | clear | |
| 14LCMW01DW | 3/21/2007 | 1315 | 5.07 | 285.18 | 11.7 | 84 | 42 | 7.06 | clear | collected duplicate |
| 14LCMW02SW | 3/21/2007 | 1425 | 5.64 | 285.55 | 11.8 | 87 | 43 | 6.98 | clear | |
| 14LCMW02DW | 3/21/2007 | 1500 | 4.97 | 286.62 | 11.4 | 83 | 42 | 6.94 | clear | |
| 14LCMW03SW | 3/21/2007 | 1540 | 4.55 | 286.36 | 10.9 | 81 | 41 | 6.85 | clear | |
| 14LCMW03DW | 3/21/2007 | 1610 | 4.72 | 286.26 | 11.5 | 90 | 45 | 6.95 | clear | |
| 14LCMW04SW | 3/22/2007 | 1245 | 5.16 | 286.47 | 11.3 | 97 | 49 | 7.15 | slightly cloudy | |
| 14LCMW04DW | 3/22/2007 | 1210 | 4.43 | 287.36 | 9.9 | 76 | 38 | 6.39 | clear | collected MS/MSD duplicate |
| 14L4MW01AW | 3/20/2007 | 1545 | 16.07 | 515.33 | 11.0 | 18 | 10 | 5.45 | clear | |
| 14L4MW01BW | 3/20/2007 | 1515 | 12.12 | 517.48 | 10.4 | 18 | 9 | 5.85 | clear | |
| 14L4MW02AW | 3/20/2007 | 1200 | 25.24 | 494.69 | 11.5 | 45 | 21 | 5.28 | clear | |
| 14L4MW02BW | 3/20/2007 | 1130 | 31.37 | 487.13 | 11.9 | 27 | 13 | 5.73 | clear | |
| 14L4MW03AW | 3/20/2007 | 1315 | 29.03 | 485.87 | 12.4 | 15 | 8 | 5.53 | clear | |
| 14L4MW03BW | 3/20/2007 | 1245 | 26.02 | 485.48 | 11.6 | 26 | 13 | 5.6 | clear | |
| 14L4MW04AW | 3/20/2007 | 1050 | 27.14 | 484.66 | 12.4 | 14 | 7 | 5.56 | clear | |
| 14L4MW05AW | 3/19/2007 | 1550 | 23.27 | 486.63 | 11.6 | 20 | 10 | 4.97 | clear | collected duplicate |
| 14L4MW07BW | 3/19/2007 | 1450 | 38.87 | 441.93 | 11.2 | 28 | 14 | 5.47 | clear | |
| 14L4MW17W | 3/19/2007 | 1400 | 10.49 | 350.99 | 11.0 | 230 | 118 | 7.01 | clear | |
| 14L4MW18W | 3/19/2007 | 1430 | 11.20 | 351.64 | 11.2 | 131 | 66 | 6.09 | clear | |

Notes: * = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
Field parameters of temperature, conductivity, TDS, and pH measured with a Hanna Model HI 991300 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | N/A | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | L4-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | L4-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available

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**TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 2nd QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Total Metals (µg/L) | | | | | | | | | | | | VOCs (µg/L) | SVOCs (µg/L) | Petroleum Hydrocarbons (mg/L) | | | Ordnance Explosives Compounds (µg/L) | | NG (µg/L) | PETN (µg/L) | Picric Acid (µg/L) | Perchlorate (µg/L) | TOC (mg/L) | DOC (mg/L) | TSS (mg/L) | Alkalinity (HCO3) (mg/L) | Alkalinity (CO3) (mg/L) | Ions (results above detection limits shown) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium (total) | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | | | NWTPH-Dx | Oil Range | NWTPH-Gx | HMX | RDX | | | | | | | | | | |
| 15LCMW01SW | 6/21/2007 | Lacamas Cr. | 0.188(J) | 0.231(J) | ND | ND | 3.87(J) | ND | ND | ND | 2.40 | 0.264(J) | ND | ND | 2.83(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 42 | < 4.0 | chloride 1.3 mg/L |
| 15LCMW01DW | 6/21/2007 | Lacamas Cr. | 0.096(J) | 0.386(J) | ND | 0.131(J) | 1.01(J) | ND | ND | ND | 1.16 | ND | ND | ND | 3.19(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | < 4.0 | chloride 1.5 mg/L |
| 15LCMW02SW | 6/21/2007 | Lacamas Cr. | 0.247(J) | 0.431(J) | ND | ND | ND | ND | ND | ND | 0.616(J) | 0.184(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 42 | < 4.0 | chloride 1.6 mg/L |
| 15LCMW02DW | 6/21/2007 | Lacamas Cr. | 0.077(J) | 0.570(J) | ND | 0.104(J) | 0.769(J) | ND | ND | ND | 0.961(J) | 0.122(J) | ND | ND | 2.50(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | < 4.0 | nitrate as N 0.23 mg/L; sulfate as $SO_4$ 1.0 mg/L; chloride 2.1 mg/L |
| 15LCMW03SW | 6/22/2007 | Lacamas Cr. | ND | 0.544(J) | ND | ND | 0.206(J) | ND | ND | ND | 0.534(J) | 0.145(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 42 | < 4.0 | nitrate as N 0.25 mg/L; chloride 1.5 mg/L |
| 15LCMW03DW | 6/22/2007 | Lacamas Cr. | ND | 0.797(J) | ND | ND | 0.312(J) | ND | ND | ND | 0.624(J) | ND | ND | ND | 2.17(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | < 4.0 | nitrate as N 0.33 mg/L; chloride 1.7 mg/L |
| 15LCMW04SW | 6/22/2007 | Lacamas Cr. | ND | 0.145(J) | ND | ND | 0.621(J) | ND | ND | ND | 0.767(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | 3 | 38 | < 4.0 | nitrate as N 1.1 mg/L; chloride 2.7 mg/L |
| 15LCMW04DW | 6/22/2007 | Lacamas Cr. | ND | 1.10 | ND | ND | 0.589(J) | ND | ND | ND | 0.761(J) | ND | ND | ND | 2.82(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 49 | < 4.0 | sulfate as $SO_4$ 1.7 mg/L; chloride 1.9 mg/L |
| 15L4MW01AW | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 1.9 | nt | nt | nt | nt | nt | nt |
| 15L4MW01BW | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 15L4MW02AW | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | 3.2 | 20 | ND | ND | nt | 170 | nt | nt | nt | nt | nt | nt |
| 15L4MW02BW | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | 3.9 | 78(E) | ND | ND | nt | 290 | nt | nt | nt | nt | nt | nt |
| 15L4MW03AW | 6/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 9.7 | ND | ND | nt | 94 | nt | nt | nt | nt | nt | nt |
| 15L4MW03BW | 6/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 3.2 | ND | ND | nt | 44 | nt | nt | nt | nt | nt | nt |
| 15L4MW04AW | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 1.8 | ND | ND | nt | 40 | nt | nt | nt | nt | nt | nt |
| 15L4MW05AW | 6/20/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | 2.5 | ND | ND | nt | 39 | nt | nt | nt | nt | nt | nt |
| 15L4MW07BW | 6/18/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 3.0 | nt | nt | nt | nt | nt | nt |
| 15L4MW17W | 6/18/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | 1.7 | nt | nt | nt | nt | nt | nt |
| 15L4MW18W | 6/18/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | ND | ND | ND | ND | nt | ND | nt | nt | nt | nt | nt | nt |
| 15L4MW425W (field duplicate of 15L4MW02BW) | 6/19/2007 | Landfill 4 | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | 2.9 | 58(E) | ND | ND | nt | 290 | nt | nt | nt | nt | nt | nt |
| RPD for duplicate 15L4MW02BW | | | | | | | | | | | | | | | | | | | | | 29% | 29% | | | | 0% | | | | | | |
| MS/MSD (field duplicate of 15LCMW01DW) | 6/21/2007 | Lacamas Cr. | 0.096(J) | 0.386(J) | ND | 0.131(J) | 1.015(J) | ND | ND | ND | 1.161 | ND | ND | ND | 3.187(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.18 | nt | < 1 | 44 | 0 | chloride 1.5 mg/L |
| 15LCMW415W (field duplicate of 15LCMW03DW) | 6/22/2007 | Lacamas Cr. | 0.181(J) | 0.788(J) | ND | ND | 0.304(J) | ND | ND | ND | 0.607(J) | 0.188(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | < 2 | 44 | < 4.0 | nitrate as N 0.29 mg/L; chloride 1.7 mg/L |
| RPD for duplicate 15LCMW03DW | | | | 1% | | | 3% | | | | 3% | | | | | | | | | | | | | | | | | | 0% | | | |
| 15LCMW420W (field equipment rinsate) | 6/20/2007 | Lacamas Cr. | 0.26(J) | ND | ND | 0.143(J) | 0.991(J) | ND | ND | ND | 0.216(J) | ND | ND | ND | ND | Detect: see VOC table | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | < 1.0 | < 1.0 | <2 | < 2 | < 2.0 | none above detection limits |
| 15LCMW430W (metals blank; deionized water) | 6/20/2007 | | ND | ND | ND | 0.372(J) | 0.456(J) | ND | ND | ND | 0.735(J) | ND | ND | ND | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 1 | 6/18/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 2 | 6/19/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | ND | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 3 | 6/20/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 4 | 6/21/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Trip Blank 5 | 6/2/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | Detect: see VOC table | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.02 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | varies | varies | 0.10 mg/L | 0.40 mg/L | 0.025 mg/L | 0.48-0.60 µg/L | 0.48-0.60 µg/L | 2.4 µg/L | 1.1 µg/L | 0.94-1 µg/L | 1.0 µg/L | 1.0 mg/L | 1.0 mg/L | 2.0 mg/L | 4 mg/L | 2 - 4 mg/L | see lab data report for limits |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | varies | varies | 500 | 500 | 1,000 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | | | | | | | | | | | | | | | | | |

**Notes:**
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
µg/L - micrograms per liter
mg/L - milligrams per liter
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
Detect - VOC compound detected; see separate VOC table
J or E = value estimated
RPD = relative percent difference between sample versus duplicate
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**BOLD** Print indicates concentration exceeding WA MTCA Method A Cleanup Level

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**TABLE 5. DISSOLVED METALS AND DOC - 2nd QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | Dissolved Metals - field filtered (µg/L) | | | | | | | | | | | | | DOC (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | Arsenic | Beryllium | Cadmium | Chromium | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc | |
| 15LCMW01SW | 6/21/2007 | Lacamas Cr. | ND | 0.160(J) | ND | 0.096(J) | 1.18 | ND | ND | ND | 1.31 | ND | ND | ND | 2.27(J) | < 1.0 |
| 15LCMW01DW | 6/21/2007 | Lacamas Cr. | ND | 0.382(J) | ND | ND | 0.756(J) | ND | ND | ND | 1.33 | ND | ND | ND | 1.99(J) | < 1.0 |
| 15LCMW02SW | 6/21/2007 | Lacamas Cr. | 0.303(J) | 0.443(J) | ND | 0.099(J) | 0.632(J) | ND | ND | ND | 1.09 | ND | ND | ND | ND | < 1.0 |
| 15LCMW02DW | 6/21/2007 | Lacamas Cr. | 0.087(J) | 0.487(J) | ND | ND | 0.273(J) | ND | ND | ND | 0.601(J) | ND | ND | ND | 2.37(J) | < 1.0 |
| 15LCMW03SW | 6/22/2007 | Lacamas Cr. | 0.205(J) | 0.499(J) | ND | ND | 0.356(J) | ND | ND | ND | 0.781(J) | ND | ND | ND | ND | < 1.0 |
| 15LCMW03DW | 6/22/2007 | Lacamas Cr. | ND | 0.745(J) | ND | ND | 0.596(J) | ND | ND | ND | 1.60 | ND | ND | ND | ND | < 1.0 |
| 15LCMW04SW | 6/22/2007 | Lacamas Cr. | ND | 0.110(J) | ND | ND | 0.585(J) | ND | ND | ND | .0846(J) | ND | ND | ND | 2.11(J) | < 1.0 |
| 15LCMW04DW | 6/22/2007 | Lacamas Cr. | ND | 1.16 | ND | ND | 0.481(J) | ND | ND | ND | 1.07 | ND | ND | ND | 2.89 | < 1.0 |
| MS/MSD (field duplicate of 15LCMW01DW) | 6/21/2007 | Landfill 4 | ND | 0.382(J) | ND | ND | 0.756(J) | ND | ND | ND | 1.33 | ND | ND | ND | 1.99(J) | < 1.0 |
| 15LCMW415W (field duplicate of 15LCMW03DW) | 6/22/2007 | Lacamas Cr. | ND | 0.787(J) | ND | ND | 0.349(J) | ND | ND | ND | 1.41 | ND | ND | ND | ND | ND |
| RPD for duplicate 15LCMW03DW | | | | 5% | | | 52% | | | | 13% | | | | | |
| 15LCMW420W (field equipment rinsate) | 6/20/2007 | Lacamas Cr. | ND | ND | ND | 0.388(J) | 0.835(J) | ND | ND | ND | 1.13 | ND | ND | ND | ND | < 1.0 |
| 15LCMW430W (metals blank; deionized water) | 6/20/2007 | | ND | ND | ND | 0.609(J) | 0.585(J) | ND | ND | ND | 0.138(J) | ND | ND | ND | 1.85(J) | nt |
| Lab detection limit | | | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 | 0.08 | 0.002 | 0.013 | 0.04 | 0.01 | 0.02 | 0.01 | 0.02 | 1.0 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | 5 | n/a | 5 | 50 | n/a | 15 | 2 | n/a | n/a | n/a | n/a | n/a | n/a |
| WA MTCA Method B Levels (µg/L) | | | 1.4 - 8 | | 0.02 | | | 592 | | 4,800 | 320 | 80 | 80 | 1.1 | 4,800 | |

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level
Only detected analytes are shown; see laboratory reports for complete listing of compounds tested
nt - Sample not tested
ug/L - micrograms per liter
J or E = value estimated
ND - Not detected to the limit of laboratory detection indicated
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
RPD = relative percent difference between sample versus duplicate
WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

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**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS**
**2nd QUARTER 2007**
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Sample No. | Sample Date | Sample Location | VOCs (µg/l) | | | | | | | | | | SVOCs (µg/l) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acetone | 2-Butanone | Chloroform | 1,1-Dichloroethane | 1,1-Dichloroethene | Dichlorodifluoromethane | Methylene Chloride | 1,1,1-Trichloroethane | Tetrachloroethene | 1,1,2,2-Tetrachloroethane | Benzoic Acid | bis(2-Ethylhexyl)phthalate |
| 15L4MW02BW | 6/19/2007 | Landfill 4 | 3.2(J) | 2.0(J) | ND | 33 | 17 | 80 | ND | 51 | 0.65(J) | 0.51(J) | nt | nt |
| 15LCMW420W (field equipment rinsate) | 6/20/2007 | Lacamas Cr. | 2.4(J) | ND | 5.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 15LCMW430W (metals blank; deionized water) | 6/20/2007 | | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt |
| 15L4MW425W (field duplicate of 15L4MW02BW) | 6/19/2007 | Landfill 4 | 3.1(J) | 1.8(J) | ND | 32 | 15 | 69 | ND | 50 | 0.64(J) | 0.52(J) | nt | nt |
| RPD for duplicate 15L4MW02BW | | | 3% | 11% | | 3% | 13% | 15% | | 2% | 2% | 2% | | |
| Trip Blank 3 | 6/20/2007 | Lacamas Cr. | 0.79(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | nt | nt |
| Trip Blank 4 | 6/21/2007 | Lacamas Cr. | 1.1(J) | ND | ND | ND | ND | ND | ND | ND | ND | ND | nt | nt |
| Trip Blank 5 | 6/22/2007 | Lacamas Cr. | ND | ND | ND | ND | ND | ND | 1.0 | ND | ND | ND | nt | nt |
| Lab detection limit | | | 5.0 | 5.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.3 | 1.7 |
| WA MTCA Method A Cleanup Levels (µg/L) | | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

**Note:**
**Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.**
nt - Sample not tested
ND - Not detected to the limit of laboratory detection indicated
µg/L - micrograms per liter
J = value estimated
B = also detected in the method blank associated with the sample
n/a - Not applicable. MTCA Method A Cleanup Level not provided.
RPD = relative percent difference between sample versus duplicate

**TABLE 7**
**FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2007**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| | | | Field Parameters at Time of Sampling | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. | Date | Time | Depth to Water in Feet* | Water Elevation in Feet amsl ** | Temp. (degrees C) | Conductivity (µS/cm) | Oxidation Reduction Potential (millivolts) | Turbidity (NTUs) | pH | Dissolved Oxygen (mg/L) | Color and Cloudiness | Notes |
| 15LCMW01SW | 6/21/2007 | 1100 | 5.85 | 284.31 | 12.0 | 91 | 129.9 | 1.02 | 6.44 | 6.99 | clear | |
| 15LCMW01DW | 6/21/2007 | 1245 | 5.21 | 285.04 | 13.1 | 98 | 93.1 | 2.33 | 6.47 | 7.36 | clear | collected MS/MSD duplicate |
| 15LCMW02SW | 6/21/2007 | 1500 | 6.82 | 284.37 | 13.2 | 92 | 129.5 | 0.93 | 5.84 | 8.62 | clear | |
| 15LCMW02DW | 6/21/2007 | 1650 | 6.60 | 284.99 | 12.7 | 97 | 133.5 | 1.74 | 6.94 | 7.36 | clear | |
| 15LCMW03SW | 6/22/2007 | 1255 | 6.46 | 284.45 | 11.3 | 91 | 135.3 | 0.63 | 6.28 | 8.19 | clear | |
| 15LCMW03DW | 6/22/2007 | 1045 | 6.34 | 284.64 | 11.3 | 100 | 152.0 | nr | 6.27 | 7.19 | clear | collected duplicate |
| 15LCMW04SW | 6/22/2007 | 1615 | 6.44 | 285.19 | 12.6 | 94 | 154.9 | 3.99 | 5.82 | 5.82 | clear | |
| 15LCMW04DW | 6/22/2007 | 1500 | 5.96 | 285.83 | 11.9 | 110 | 111.6 | 0.93 | 6.51 | 6.99 | clear | |
| 15L4MW01AW | 6/19/2006 | 1055 | 16.21 | 515.19 | 12.2 | 36 | 228.7 | 32 | 5.04 | 10.28 | clear | |
| 15L4MW01BW | 6/19/2006 | 0950 | 13.42 | 516.18 | 10.4 | 26 | 205.7 | 4.72 | 5.18 | 7.89 | clear | |
| 15L4MW02AW | 6/20/2007 | 1000 | 27.49 | 492.44 | 14.6 | 41 | 238.6 | nr | 4.86 | 7.89 | clear | |
| 15L4MW02BW | 6/19/2006 | 1630 | 31.22 | 487.24 | 15.0 | 69 | -25.6 | nr | 5.6 | 2.08 | clear | collected duplicate |
| 15L4MW03AW | 6/20/2007 | 1120 | 29.60 | 485.25 | 15.9 | 22 | 210.7 | 8.47 | 4.93 | 6.57 | clear | |
| 15L4MW03BW | 6/20/2007 | 1350 | 26.80 | 484.67 | 14.6 | 49 | 136.3 | nr | 5.51 | 5.91 | clear | |
| 15L4MW04AW | 6/19/2006 | 1215 | 27.32 | 484.47 | 14.8 | 18 | 199.0 | 6.15 | 5.19 | 7.99 | clear | |
| 15L4MW05AW | 6/20/2007 | 1515 | 23.88 | 486.03 | 13.2 | 28 | 216.2 | 4.67 | 5.11 | 6.80 | clear | |
| 15L4MW07BW | 6/18/2007 | 1600 | 39.91 | 440.51 | 12.1 | 34 | 191.0 | 10.89 | 5.29 | 9.36 | clear | |
| 15L4MW17W | 6/18/2007 | 1355 | 10.69 | 350.79 | 14.0 | 232 | -36.4 | 11.81 | 7.11 | 6.09 | clear | |
| 15L4MW18W | 6/18/2007 | 1450 | 11.78 | 351.06 | 12.6 | 130 | 90.7 | 46.7 | 6.20 | 11.10 | clear | |

Notes:
* = depth in feet measured from top of well PVC casing.
** = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)
nr = value not recorded
Field parameters of temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and pH measured with a YSI Model 556 meter.

**TABLE 8**
**WELL NUMBER AND CONSTRUCTION DETAILS**
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

| Well Number in PBS Work Contract | WADOE Well Tag Number | Well Location | Total Depth (ft)* | Screened Interval (ft)** | Top of PVC Casing Elevation (feet above mean sea level) | Well Number on Steel Casings/Caps (CHPPM No.) |
|---|---|---|---|---|---|---|
| LC-MW01S | AHA-359 | Lacamas Cr. | 22.73 | 15-20 | 290.16 | LC-MW01S |
| LC-MW06D | AHA-358 | Lacamas Cr. | 42.20 | 30-40 | 290.25 | LC-MW01D |
| LC-MW02S | AHA-364 | Lacamas Cr. | 17.50 | 12.5-17.5 | 291.19 | LC-MW02S |
| LC-MW07D | AHA-357 | Lacamas Cr. | 37.85 | 25-35 | 291.59 | LC-MW02D |
| LC-MW03S | AHA-363 | Lacamas Cr. | 20.10 | 13-18 | 290.91 | LC-MW03S |
| LC-MW08D | AHA-362 | Lacamas Cr. | 39.40 | 27-37 | 290.98 | LC-MW03D |
| LC-MW04S | AHA-375 | Lacamas Cr. | 16.54 | 7-17 | 291.63 | LC-MW04S |
| LC-MW09D | AHA-361 | Lacamas Cr. | 37.00 | 25-35 | 291.79 | LC-MW04D |
| | | | | | | |
| L4-MW01A | N/A | Landfill 4 | 30.40 | N/A | 531.40 | L4-MW01A |
| L4-MW01B | AGL-482 | Landfill 4 | 55.40 | 43-53 | 529.57 | L4-MW01B |
| L4-MW02A | N/A | Landfill 4 | 40.20 | N/A | 519.93 | L4-MW02A |
| L4-MW02B | AGL-483 | Landfill 4 | 74.60 | 62-72 | 518.46 | L4-MW02B |
| L4-MW03A | AGL-466 | Landfill 4 | 48.90 | 41-46 | 514.85 | L4-MW03A |
| L4-MW03B | AGL-484 | Landfill 4 | 62.90 | 49-59 | 511.47 | L4-MW03B |
| L4-MW04A | AGL-465 | Landfill 4 | 43.40 | 33-43 | 511.79 | L4-MW04A |
| L4-MW05A | AGL-467 | Landfill 4 | 36.60 | 30-35 | 509.91 | L4-MW05A |
| L4-MW07B | N/A | Landfill 4 | 58.60 | 46-56 | 480.42 | L4-MW07B |
| L4-MW17 | ALB-252 | Landfill 4 | 15.00 | 5-15 | 361.48 | L4-MW17 |
| L4-MW18 | ALB-251 | Landfill 4 | 20.00 | 10-20 | 362.84 | L4-MW18 |

Notes:
* = depth in feet measured from top of well PVC casing
** = screened interval reported on well completion logs
N/A = not available