



# City of Bothell™

## Public Works Department

City Hall  
18415, 101st Ave NE  
Bothell, WA 98011

## LETTER OF TRANSMITTAL

Phone (425) 806-6800  
Fax (425) 806-6130

**Date:** September 8, 2016

**Company:** Department of Ecology  
**Attn:** Sunny Becker NWRO Toxics  
**Address:** Cleanup Program 3190 - 160th SE  
Bellevue, WA 98008

**From:** Nduta Mbuthia, Project Engineer, Capital Projects Division

### Attached please find: Electronic copy of:-

1) Letter Report (9/2/2016) - YR 3, QTR 2 Groundwater Monitoring Report for Riverside Site

- |   |   |
|---|---|
| <input type="checkbox"/> For your information/files | <input type="checkbox"/> For your action          |
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**Comments:** N/A



September 2, 2016

HWA Project No. 2007 098- 2012

Ms. Sunny Becker  
Washington Department of Ecology  
Toxics Cleanup Program, Northwest Regional Office  
3190 - 160th SE Bellevue, WA 98008

Subject: **GROUND WATER MONITORING AND NEW WELL RESULTS  
YEAR 3, QUARTER 2 – JUNE/JULY 2016  
Riverside Site  
Bothell, Washington**

Dear Ms. Becker:

This report describes quarterly ground water monitoring results and the results of two new monitoring wells at the Riverside HVOC Site, hereafter referred to as “the Site”, located in downtown Bothell, Washington.

Ground water remediation is being performed as an interim action, in response to tetrachloroethene (PCE) and its degradation products in shallow ground water at concentrations exceeding Model Toxics Control Act (MTCA) Method A cleanup levels. The interim action is being performed in accordance with the Interim Action Work Plan (IAWP) dated January 7, 2013 and per the scope of work set forth in Amendment 2 to Agreed Order DE 6295, dated April 19, 2013, between the City of Bothell (City) and the Washington State Department of Ecology (Ecology). Remediation is being performed via pump-and-treat methods, which includes ground water extraction and discharge to the sanitary sewer via King County Industrial Waste Discharge permit 4268-01. The remediation system includes four extraction wells (EW-1 through EW-4) and ten monitoring wells (RMW-4 through RMW-13 and BC-3).

Figure 1 shows a site plan with well locations. Ground water monitoring and remediation activities are described below.

## **GROUND WATER REMEDIATION ACTIVITIES**

The ground water extraction and treatment system began operation in December 2013 and is still operating. Ground water extraction from the remediation system is measured via a totalizing flow meter placed in the effluent pipe that discharges to the King County sanitary sewer.

Quarterly discharge reports are submitted to King County Industrial Waste Division using standard forms provided by King County. The first and second quarterly discharge reports for the year 2016 are attached for reference (Appendix A). Effluent samples were collected from extraction wells EW-1 through EW-4 and from the combined discharge effluent from the remediation system. Sampling dates for extraction wells are shown in Table 1.

## **COMPLIANCE GROUND WATER MONITORING**

This section describes performance monitoring of ground water performed during the interim action.

- First year (2014) ground water monitoring events were performed in April, June, September and December 2014.
- Second year (2015) ground water monitoring events were performed in March, June, September, and December 2015.
- A third year (2016) ground water monitoring events were performed in March and June: with two subsequent rounds remaining and tentatively scheduled for September and December 2016.

All monitoring events have included sampling some wells on a quarterly basis and some wells on a semi-annual basis in accordance with the IAWP (see Table 1).

Performance monitoring is performed to confirm that the interim action has attained cleanup standards. Performance monitoring includes collection of ground water samples from the extraction wells and selected monitoring wells, as described in Table 1 (excerpted from the IAWP).

Performance monitoring samples are analyzed for halogenated volatile organic compounds (HVOCs) and field parameters (temperature, dissolved oxygen, oxygen reduction potential, specific conductivity, and pH).

## **GROUND WATER ANALYTICAL RESULTS**

Analytical results for ground water samples are summarized in Table 2. Figures 2, 3, and 4 show graphs of HVOCs over time as follows:

- Figure 2 - Monitoring wells, PCE vs time
- Figure 3 - Extraction wells, PCE vs time
- Figure 4 - MW-7 HVOCs vs. time

Sampling events in September 2009 and May 2013 provide ground water chemistry data from when the wells were installed, and base-line ground water chemistry data prior to initial operation of the ground water treatment system. Review of analytical results for monitoring well samples provides the following observations:

- HVOC concentrations in the monitoring wells, including RMW-7 at the point of compliance near the river, had decreased from 2009 to 2013, before the treatment system was installed.
- HVOC concentrations in the monitoring wells after the treatment system was started have changed seasonally, but have generally remained within the same range.
- HVOC concentrations at BC-3 generally show decreasing PCE and trichloroethene (TCE) concentrations, and the presence of degradation products indicating that groundwater remediation is progressing.
- Vinyl chloride concentrations exceeding MTCA Method A cleanup level were detected in well RMW-6 in September 2009 and May 2013. However, these and other HVOC concentrations have been non-detect or below the cleanup levels since then.

Review of analytical results for extraction well samples provides the following observations and trends:

- HVOC concentrations in the extraction wells after the treatment system was started have changed seasonally, but have generally remained within the same range.
- Wells EW-1, EW-2, and EW-3 have generally contained PCE and in some cases cis 1,2-dichloroethene ((cis) 1,2-DCE) exceeding the MTCA Method A cleanup level
- Well EW-4 has the lowest HVOC concentrations, with no PCE detected above cleanup levels in the last four rounds of sampling. Vinyl chloride has been detected above cleanup levels since pumping started in EW-4.

## **GROUND WATER TREATMENT SYSTEM PERFORMANCE DATA**

Treatment system performance data is collected on at least a monthly basis. Total discharge to-date is 5,781,512 gallons based on totalizer readings at the discharge outlet to the sanitary sewer. Average flows have been around 8,000 gallons per day, with flows up to 15,000 gallons per day during periods of higher ground water and when all wells are functioning properly. Flows have remained between 10,000 and 15,0000 gallons per day since February 2016.

## **NEW MONITORING WELLS**

Following a meeting with Ecology's site manager on June 23, 2016, two additional monitoring wells were installed on July 22, 2016. The wells were installed and sampled in response to Ecology's request for additional remedial investigation to verify recent soil gas data. HWA conducted a passive soil gas survey in January and February 2016 at the south part of the Riverside HVOC Site. The survey included installation and analysis of 35 shallow, passive soil gas samplers.

The ground water monitoring well installation activities included advancing two borings to depths of approximately 25 feet below ground surface (bgs) utilizing a truck mounted hollow stem auger drill rig. Ground water monitoring wells, identified as RMW-12 and RMW-13, were constructed of 2-inch diameter, schedule 40 polyvinyl chloride (PVC) casing with 10 feet of mill-slotted well screen placed from 15 to 25 feet bgs. The new monitoring well locations are also shown on Figure 1.

RMW-12 was located in an area where a recent passive soil gas survey detected relatively higher HVOC concentrations in shallow soil gas. The new well serves to measure HVOC concentrations in shallow ground water in this area, as well as to confirm shallow ground water HVOC concentrations previously detected in this area in a direct push boring (R-4) installed and sampled in 2008.

RMW-13 was located at the downgradient end of the site, near the river, to further define the lateral extent of the HVOC plume as it nears the river. The soil gas survey sample at this location detected 8.2 nanograms (ng) of PCE, which was flagged by the lab as an estimated quantity, i.e., below the limit of quantitation (10 ng) but above the limit of detection (5 ng). For comparison, the soil gas survey sample near RMW-12 had 533 ng of PCE.

During drilling activities, soil samples were collected from 2.5-foot soil intervals to the completion depth of each of the borings. HWA conducted field screening of soil from the borings for the presence of volatile organic vapors using a Mini-Rae PGM 75 PID. Although the PID is not capable of quantifying or identifying specific organic compounds, this instrument is useful for providing qualitative information with respect to the presence and relative concentration of organic vapors. PID readings are shown on the boring logs (Appendix B).

After well completion (on July 22, 2016), each well was developed for approximately one hour. Ground water samples were collected from each well on July 25, 2016. Ground water samples were collected using low-flow purging techniques. Field parameters were measured during purging, and included: pH, temperature, oxidation/reduction potential, dissolved oxygen, specific conductivity, and depth-to-water. Field parameter measurements were recorded on HWA field forms and ground water samples were collected once field parameters stabilized.

Soil and ground water samples were collected in clean, unused, laboratory-supplied containers, labeled with pertinent sampling information, transferred to an ice-filled, insulated cooler, and transported to the analytical laboratory under chain-of-custody procedures. Select soil samples and the ground water samples were submitted for chemical analysis of HVOCs at OnSite Environmental of Redmond, Washington, an Ecology-accredited third-party analytical laboratory. Laboratory results are included in Appendix B of this letter report and are discussed below.

### **Soil Analytical Results**

Soil analytical results are summarized in Table 3. HVOC detections of PCE, TCE, and (cis) 1,2-DCE were identified above laboratory detection limits in three of the four soil samples submitted from RMW-12. Of these detections, only one HVOC detection was above Ecology's MTCA Method A cleanup level. PCE was detected at a concentration of 0.590 milligrams per kilogram (mg/kg) in soil sample RMW-12-22.5 (collected at a depth of 22.5 feet bgs), which is above the cleanup level of 0.05 mg/kg.

One HVOC detection above laboratory detection limits was also identified in a soil sample submitted from RMW-13. Soil sample RMW-13-17.5 (collected from a depth of 17.5 feet bgs) had a detection of (cis) 1,2-DCE that was 0.0014 mg/kg, which is well below the cleanup level of 160 mg/kg.

### **Ground Water Analytical Results**

Ground water analytical results are summarized in Table 2. HVOC detections of PCE, TCE, and (cis) 1,2-DCE were identified above laboratory detection limits in the ground water sample submitted from RMW-12. Of these detections, PCE was detected at 120 micrograms per liter ( $\mu\text{g/L}$ ) and TCE was detected at 19  $\mu\text{g/L}$ , both of which are above the MTCA Method A cleanup levels of 5  $\mu\text{g/L}$ . (cis) 1,2-DCE was not detected above the cleanup level.

Two HVOC detections above the laboratory detection limit were identified in the ground water sample submitted from RMW-13. (cis) 1,2-DCE was detected at a concentration of 1.8  $\mu\text{g/L}$ , below the cleanup level of 16  $\mu\text{g/L}$ , and vinyl chloride was detected at 0.24  $\mu\text{g/L}$ , exceeding the cleanup level of 0.2  $\mu\text{g/L}$ .

### **Ground Water Vertical Gradient**

The vertical ground water gradient between existing deep well RMW-10 (screened at 32 to 42 feet bgs) and RMW-12 (screened at 15 to 25 feet bgs) was calculated by dividing the difference in water level elevations by the vertical elevation difference of the well screens (assumed to be the midpoint of each screen). The vertical gradient was found to be 0.046 ft/ft downward. Ground water flow in alluvial soils is primarily horizontal, due

to the layering of soils, therefore the effect of vertical gradients is minimal, but the slight downward gradient is worth noting.

## CONCLUSIONS AND RECOMMENDATIONS

Analytical results of the quarterly monitoring indicate all extraction wells have been and continue to recover HVOC-impacted ground water. Analytical results indicate decreasing trends in HVOC concentrations at EW-4 and BC-3, suggesting some shrinking of the plume, although the generally similar concentrations in the other wells suggest a steady state condition, where HVOCs from upgradient areas may be replacing ground water pumped from the system. The extraction system is, however, acting as a barrier and capturing HVOC-impacted ground water that might otherwise be discharging into the river, as intended.

Analytical results of the two new wells indicates elevated HVOCs in soil and ground water in RMW-12, which confirms the 2008 results in boring R-4 (soil: 9 µg/kg PCE at 8 feet bgs; ground water: 320 µg/L at 15 feet bgs), as well as the soil gas anomaly detected in this area. The low HVOC concentrations in ground water at RMW-13 indicates the plume is narrow at its point of contact with the river (near RMW-7), and/or that the ground water pump and treat system is working to prevent HVOC discharge to the river in the area near RMW-13.

HWA recommends that additional Phase II subsurface soil gas data be collected from the northern adjacent city right-of-way and nearby upgradient properties (see attached Figure 5) to assess if these areas may be impacting the Site. Additionally, deeper ground water sampling upgradient of the Site may establish if an upgradient source is reaching the Site via deeper zones.

The City also plans to install two additional ground water extraction wells upgradient of RMW-7 to capture any HVOC impacted water near RMW-7 that may be outside the influence of the pumping system. These wells will be plumbed into the existing ground water treatment system already in operation at the Site, which discharges pumped ground water into a sanitary sewer under permit to King County Industrial Waste Division. The pump & treat system will be calibrated to balance the pumping from all the wells to achieve equilibrium to prevent a large amount of water from being pulled from the river. The proposed new extraction well locations are also shown on Figure 5.



September 2, 2016  
HWA Project No. 2007 098- 2012 / 2040

We appreciate the opportunity to provide our services to you on this project. Please feel free to contact me if you have any questions or need additional information.

Sincerely,  
HWA GEOSCIENCES INC.



Nicole Kapise  
Senior Environmental Geologist



Arnie Sugar, LG, LHG  
Principal Hydrogeologist

Attachments:

Table 1, Performance Monitoring per the IAWP

Table 2, Ground water analytical results, including new wells

Table 3: Analytical Results for Soil Samples, new wells

Figure 1, Site plan, well locations and HVOCs in ground water

Figure 2, Monitoring wells, PCE vs time

Figure 3, Extraction wells, PCE vs time

Figure 4, MW-7 HVOCs vs. time

Figure 5: Proposed Soil Gas Survey Exploration Plan and Proposed Extraction Well Locations

Appendix A: Year 2016 Quarterly King County Industrial Waste Reports

Appendix B: Subsurface Boring Logs, new wells

Appendix C: Laboratory Analytical Results, new wells



**Table 1**  
**Performance Monitoring**  
**Bothell Riverside Site**

| <b>Sample Type</b>              | <b>Sampling Location</b>  | <b>Sampling Frequency / Rationale</b>   |
|---------------------------------|---|---|
| Preliminary Point of Compliance | Extraction well 1<br>Extraction well 2<br>Extraction well 3<br>Extraction well 4<br>RMW-7 | Quarterly for one year, then modify based on results and consultation with Ecology (e.g. move to semi-annual if concentrations stabilize) |
| Combined discharge              | Combined discharge at sewer manhole or manifold   | As required by KCIWD permit   |
| Nearby wells                    | BC-3<br>RMW-4<br>RMW-5<br>RMW-6<br>RMW-8<br>RMW-9<br>RMW-10                               | Semi-annual for one year, then modify based on results and consultation with Ecology to check for water quality impacts due to pumping    |



**Table 2**  
**Bothell Riverside Site**  
**Ground Water Analytical Results**

|  |                            |              | FIELD PARAMETERS             |            |                   |           |                         |                                  |                        | HVOCs                     |                         |                            |                                  |                                    |                       | NOTES             |                  |
|--|----------------------------|--------------|------------------------------|------------|-------------------|-----------|-------------------------|----------------------------------|------------------------|---------------------------|-------------------------|----------------------------|----------------------------------|------------------------------------|-----------------------|-------------------|------------------|
| Monitoring Well Identification   | Screened Interval (ft bgs) | Date Sampled | Depth to Water (ft below MP) | pH (units) | Conductivity (µS) | Temp (°C) | Dissolved Oxygen (mg/L) | Oxygen Reduction Potential (ORP) | Settable Solids (mg/L) | Tetrachloro-ethene (µg/L) | Trichloro-ethene (µg/L) | 1,1-Dichloro-ethene (µg/L) | (cis) 1,2-Dichloro-ethene (µg/L) | (trans) 1,2-Dichloro-ethene (µg/L) | Vinyl chloride (µg/L) | Chloroform (ug/L) |                  |
| MTCA Method A (Table 720-1, WAC 173-340-900) or Method B Cleanup Level |                            |              |                              |            |                   |           |                         |                                  | 5                      | 5                         | 400 (B)                 | 16 (B)                     | 160 (B)                          | 0.2                                |                       |                   |                  |
| KCIWD Limits   |                            |              |                              |            |                   |           |                         |                                  | 7.00                   | 240                       | 500                     | 1700                       | Total <2000                      | 12                                 |                       |                   |                  |
| RMW-10   | 32-42                      | 5/24/13      | 11.85                        | 6.52       | 247               | 13.3      | 6.60                    |                                  |                        | <0.20                     | <0.20                   |                            | <0.20                            | <0.20                              | <0.20                 |                   |                  |
|  |                            | 6/24/14      | 15.00                        | 6.19       | 361               | 15.4      | 1.08                    |                                  |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
|  |                            | 12/19/14     | 14.80                        | 6.08       | 284               | 15.0      | 2.03                    |                                  |                        | 0.69                      | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
|  |                            | 6/23/15      | 20.40                        | 6.43       | 233               | 17.3      | 7.28                    | 37.00                            |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
|  |                            | 12/8/15      | 19.69                        | 5.94       | 134               | 14.69     | 5.41                    | 50.00                            |                        | <0.2                      | <0.2                    | <0.20                      | <0.2                             | <0.20                              | <0.2                  |                   |                  |
|  |                            | 6/29/16      | 13.6                         | 6.68       | 166               | 15.83     | 8.35                    | 29.20                            |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
| RMW-12   | 15-25                      | 7/25/16      | 16.25                        | 6.3        | 0.442             | 17.68     | 1.53                    | 21.7                             | 120                    | 19                        | <1.0                    | 14                         | <1.0                             | <1.0                               | <1.0                  | <1.0              |                  |
| RMW-13   | 15-25                      | 7/25/16      | 14.95                        | 5.19       | 0.333             | 17.4      | 2.5                     | 183.5                            | <0.20                  | <0.2                      | <0.20                   | 1.8                        | <0.2                             | 0.24                               | 0.26                  |                   |                  |
| BC-3   | 15-25                      | 9/5/08       |                              |            |                   |           |                         |                                  | 110                    | 120                       |                         | 46                         |                                  | <1                                 |                       |                   |                  |
|  |                            | 5/24/13      | 12.95                        | 6.55       | 342               | 15.1      | 4.00                    |                                  | 25                     | 11                        |                         | 4                          |                                  | <0.20                              |                       |                   |                  |
|  |                            | 6/24/14      | 14.41                        | 6.06       | 426               | 14.8      | 2.40                    |                                  | 11                     | 4.0                       | <0.20                   | 0.75                       | <0.20                            | <0.20                              |                       |                   |                  |
|  |                            | 12/19/14     | 15.61                        | 6.07       | 298               | 14.8      | 1.82                    |                                  | 7.7                    | 2.1                       | <0.20                   | 0.44                       | <0.20                            | <0.20                              |                       |                   |                  |
|  |                            | 6/23/15      | 18.30                        | 5.68       | 161               | 21.2      | 364.00                  | 123.40                           |                        | 3.8                       | 0.9                     | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
|  |                            | 12/8/15      | 15.3                         | 5.59       | 248               | 15.17     | 6.05                    | 120.80                           |                        | 5.3                       | 1.3                     | <0.20                      | 0.29                             | <0.20                              | <0.20                 |                   |                  |
|  |                            | 6/29/16      | 16.95                        | 5.9        | 167               | 15.84     | 6.97                    | 52.20                            |                        | 3.7                       | 0.93                    | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                  |
| EW-1   | 12.5-32.5                  | 4/4/14       | 27.90                        |            |                   |           |                         |                                  |                        | 17                        | 3                       |                            | 1.2                              |                                    | <0.20                 |                   |                  |
|  |                            | 6/25/14      | 14.78                        | 6.61       | 0.10              | 18.3      | 5.68                    |                                  |                        | 27                        | 8.1                     | <0.20                      | 6.5                              | <0.20                              | <0.20                 |                   |                  |
|  |                            | 9/22/14      |                              |            |                   |           |                         |                                  |                        |                           |                         |                            |                                  |                                    |                       |                   | Pump not working |
|  |                            | 12/19/14     |                              | 6.42       | 107               | 17.3      | 4.99                    |                                  |                        | 21                        | 2.6                     | <0.20                      | 0.82                             | <0.20                              | <0.20                 |                   |                  |
|  |                            | 3/18/15      |                              | 7.01       | 167               | 15.9      | 3.65                    |                                  |                        | 2.8                       | 0.27                    | <0.20                      | <0.20                            | <0.20                              | <0.20                 | <0.20             |                  |
|  |                            | 6/23/15      |                              |            |                   |           |                         |                                  |                        | 22                        | 2                       | <0.20                      | 0.95                             | <0.20                              | <0.20                 | 2.20              |                  |
|  |                            | 9/11/15      | 15.86                        | 6.01       | 160               | 19.54     | 2.99                    | -49.88                           |                        | 41                        | 2.2                     | <0.20                      | 0.79                             | <0.20                              | <0.20                 | 1.30              |                  |
|  |                            | 12/8/15      |                              |            |                   |           |                         |                                  |                        |                           |                         |                            |                                  |                                    |                       |                   |                  |
|  |                            | 3/31/16      |                              | 6.27       | 227               | 15.94     | 6.55                    | 80.2                             |                        | 22                        | 2.8                     | <0.20                      | 2.5                              | <0.20                              | <0.20                 | 0.84              |                  |
|  |                            | 6/29/16      |                              | 6.37       | 192               | 16.7      | 8.1                     | 47.5                             |                        | 24                        | 4.2                     | <0.20                      | 4.5                              | <0.20                              | <0.20                 | 0.32              |                  |
| EW-2   | 15-35                      | 4/4/14       | 23.70                        |            |                   |           |                         |                                  |                        | 13                        | 2.8                     |                            | 1.5                              |                                    | <0.20                 |                   |                  |
|  |                            | 6/25/14      | 17.10                        | 6.58       | 143               | 16.5      | 2.21                    |                                  |                        | 28                        | 3.8                     | <0.20                      | 1.5                              | <0.20                              | <0.20                 |                   |                  |
|  |                            | 9/22/14      |                              |            |                   |           |                         |                                  |                        | 66                        | 16                      | <0.40                      | 12                               | <0.40                              | <0.40                 |                   |                  |
|  |                            | 12/19/14     |                              | 7.01       | 204               | 15.8      | 2.31                    |                                  |                        | 44                        | 12                      | <0.40                      | 12                               | <0.40                              | <0.40                 |                   |                  |
|  |                            | 3/18/15      |                              | 6.87       | 251               | 15.0      | 2.16                    |                                  |                        | 22                        | 6.5                     | <0.20                      | 4.3                              | <0.20                              | <0.20                 | <0.20             |                  |
|  |                            | 6/23/15      |                              |            |                   |           |                         |                                  |                        | 8.6                       | 2.4                     | <0.20                      | 1.8                              | <0.20                              | <0.20                 | 1.40              |                  |
|  |                            | 9/11/15      | 19.89                        | 6.11       | 235               | 19.9      | 2.84                    | -56.8                            |                        | 6.5                       | 0.62                    | <0.20                      | <0.20                            | <0.20                              | <0.20                 | 0.25              |                  |
|  |                            | 12/8/15      |                              | 5.92       | 201               | 15.12     | 2.43                    | 595.1                            |                        | 16                        | 2.6                     | <0.20                      | 2.4                              | <0.20                              | <0.20                 |                   |                  |
|  |                            | 3/31/16      |                              | 5.75       | 218               | 15.21     | 8.58                    | 129.9                            |                        | 16                        | 4.0                     | <0.20                      | 3.7                              | <0.20                              | <0.20                 | <0.20             |                  |
|  |                            | 6/29/16      |                              | 6.46       | 185               | 15.75     | 6.85                    | 48.3                             |                        | 17                        | 4.1                     | <0.20                      | 3.2                              | <0.20                              | <0.20                 |                   |                  |
| EW-3   | 14-34                      | 4/4/14       | 23.80                        |            |                   |           |                         |                                  |                        | 49                        | 14                      |                            | 7.2                              |                                    | 0.61                  |                   |                  |
|  |                            | 6/25/14      | 19.00                        | 6.58       | 182               | 16.4      | 6.34                    |                                  |                        | 41                        | 14                      | <0.40                      | 12                               | <0.40                              | <0.40                 |                   |                  |
|  |                            | 9/22/14      |                              |            |                   |           |                         |                                  |                        | 190                       | 59                      | <1.0                       | 33                               | <1.0                               | 1.10                  |                   |                  |
|  |                            | 12/19/14     |                              | 6.82       | 275               | 15.9      | 6.02                    |                                  |                        | 21                        | 6.4                     | <0.20                      | 6                                | <0.20                              | <0.20                 |                   |                  |
|  |                            | 3/18/15      |                              | 6.78       | 322               | 15.4      | 5.47                    |                                  |                        | 140                       | 46                      | <1.0                       | 29                               | <1.0                               | <1.0                  | <1.0              |                  |
|  |                            | 6/23/15      |                              |            |                   |           |                         |                                  |                        | 87                        | 24                      |                            | 9                                |                                    |                       | 15.00             |                  |
|  |                            | 9/11/15      | 20.86                        | 6.56       | 354               | 19.89     | 2.53                    | -65.78                           |                        | 81                        | 28                      | <0.40                      | 14                               | <0.40                              | <0.40                 | 0.44              |                  |
|  |                            | 12/8/15      |                              | 5.82       | 247               | 16.59     | 2.36                    | 160                              |                        | 33                        | 11                      | <0.20                      | 7.8                              | <0.20                              | 0.38                  |                   |                  |
|  |                            | 3/31/16      |                              | 6.20       | 358               | 19.57     | 2.28                    | 87.5                             |                        | 72                        | 21                      | <0.20                      | 16                               | <0.20                              | 0.64                  | <0.40             |                  |
|  |                            | 6/29/16      |                              | 6.28       | 304               | 19.37     | 6.51                    | 45.9                             |                        | 79                        | 24                      | <0.40                      | 14                               | <0.40                              | 0.43                  |                   |                  |
| EW-4   | 11-31                      | 4/4/14       | 12.50                        |            |                   |           |                         |                                  |                        |                           |                         |                            |                                  |                                    |                       | Pump not working  |                  |
|  |                            | 6/25/14      | 17.30                        | 6.46       | 0.22              | 16.0      | 1.73                    |                                  |                        | 1.7                       | 1.8                     | <0.20                      | 1.1                              | <0.20                              | 0.38                  |                   |                  |
|  |                            | 9/22/14      |                              |            |                   |           |                         |                                  |                        | 45                        | 10                      | <0.20                      | 7.4                              | <0.20                              | 0.87                  |                   |                  |
|  |                            | 12/19/14     |                              | 6.68       | 105               | 16.6      | 1.99                    |                                  |                        | 1.2                       | 1.6                     | <0.20                      | 1.1                              | <0.20                              | 0.27                  |                   |                  |
|  |                            | 3/18/15      |                              |            |                   |           |                         |                                  |                        | 15                        | 4.8                     | <0.20                      | 3.2                              | <0.20                              | <0.20                 | 0.21              |                  |
|  |                            | 6/23/15      |                              |            |                   |           |                         |                                  |                        | 0.85                      | 2.8                     | <0.20                      | 1.7                              | <0.20                              | 0.37                  | 2.10              |                  |
|  |                            | 9/11/15      | 18.84                        | 6.23       | 125               | 19.22     | 2.55                    | -65.32                           |                        | 1.8                       | 2.1                     | <0.20                      | 0.92                             | <0.20                              | 0.28                  | <0.20             |                  |
|  |                            | 12/8/15      |                              | 5.84       | 424               | 22.04     | 0                       | 214                              |                        | <0.20                     | 1.6                     | <0.20                      | 2.9                              | <0.20                              | 0.85                  |                   |                  |
|  |                            | 3/31/16      |                              | 6.61       | 354               | 15.91     | 1.47                    | 2.0                              |                        | <0.20                     | 2.5                     | <0.20                      | 2.0                              | <0.20                              | 0.31                  | <0.20             |                  |
| 6/29/16  |                            | 6.54         | 344                          | 19.19      | 6.99              | 33.0      |                         | <0.20                            | 1.2                    | <0.20                     | 3.5                     | <0.20                      | 0.61                             |                                    |                       |                   |                  |

**Table 2  
Bothell Riverside Site  
Ground Water Analytical Results**

|  |                            |              | FIELD PARAMETERS             |            |                   |           |                         |                                  |                        | HVOCs                     |                         |                            |                                  |                                    |                       | NOTES             |                               |
|--|----------------------------|--------------|------------------------------|------------|-------------------|-----------|-------------------------|----------------------------------|------------------------|---------------------------|-------------------------|----------------------------|----------------------------------|------------------------------------|-----------------------|-------------------|-------------------------------|
| Monitoring Well Identification   | Screened Interval (ft bgs) | Date Sampled | Depth to Water (ft below MP) | pH (units) | Conductivity (µS) | Temp (°C) | Dissolved Oxygen (mg/L) | Oxygen Reduction Potential (ORP) | Settable Solids (mg/L) | Tetrachloro-ethene (µg/L) | Trichloro-ethene (µg/L) | 1,1-Dichloro-ethene (µg/L) | (cis) 1,2-Dichloro-ethene (µg/L) | (trans) 1,2-Dichloro-ethene (µg/L) | Vinyl chloride (µg/L) | Chloroform (ug/L) |                               |
| MTCA Method A (Table 720-1, WAC 173-340-900) or Method B Cleanup Level |                            |              |                              |            |                   |           |                         |                                  | 5                      | 5                         | 400 (B)                 | 16 (B)                     | 160 (B)                          | 0.2                                |                       |                   |                               |
| KCIWD Limits   |                            |              |                              |            |                   |           |                         |                                  | 7.00                   | 240                       | 500                     | 1700                       | Total <2000                      | 12                                 |                       |                   |                               |
| DISCH  | NA                         | 4/4/14       | NA                           | 6.48       | 443               | 15.3      |                         |                                  |                        | 25                        | 6.3                     |                            | 3                                | <0.20                              | <0.20                 |                   |                               |
|  |                            | 6/25/14      | NA                           | 6.40       | 200               | 16.4      | 1.43                    |                                  | 0.0                    | 30                        | 8.4                     | <0.20                      | 5.9                              | <0.20                              | 0.38                  |                   |                               |
|  |                            | 9/22/14      | NA                           |            |                   |           |                         |                                  | 0.2                    | 79                        | 18                      | <0.40                      | 13                               | <0.40                              | <0.40                 |                   |                               |
|  |                            | 12/18/14     | NA                           |            |                   |           |                         |                                  |                        | 11                        | 2.7                     | <0.20                      | 2.5                              | <0.20                              | <0.20                 |                   |                               |
|  |                            | 3/18/15      | NA                           | 6.54       | 230               | 15.1      | 1.89                    |                                  | 0.1                    | 25                        | 7.4                     | <0.20                      | 4.7                              | <0.20                              | <0.20                 | <0.20             |                               |
|  |                            | 6/23/15      | NA                           |            |                   |           |                         |                                  |                        | 11                        | 2.3                     | <0.20                      | 1.5                              | <0.20                              | <0.20                 | 1.60              |                               |
|  |                            | 9/11/15      | NA                           | 6.23       | 245               | 20.55     | 2.68                    | -65.3                            | 0                      | 7.9                       | 1.5                     | <0.20                      | 0.77                             | <0.20                              | <0.20                 | 0.39              |                               |
|  |                            | 12/8/15      | NA                           | 6.15       | 267               | 17.2      | 3.9                     | 18                               |                        | 68                        | 21                      | <0.20                      | 15                               | 0.23                               | 0.91                  |                   |                               |
|  |                            | 3/31/16      | NA                           | 6.57       | 261               | 16.26     | 6.78                    | 50.6                             |                        | 21                        | 5.5                     | <0.20                      | 4.4                              | <0.20                              | <0.20                 | 0.21              |                               |
| 6/29/16  | NA                         | 6.71         | 214                          | 16.83      | 6.14              | 13.7      |                         | 24                               | 5.7                    | <0.20                     | 4.6                     | <0.20                      | <0.20                            |                                    |                       |                   |                               |
| QC Samples   |                            |              | FIELD PARAMETERS             |            |                   |           |                         |                                  |                        | HVOCs                     |                         |                            |                                  |                                    |                       | NOTES             |                               |
| DUP  | 6/25/14                    | 6/25/14      |                              |            |                   |           |                         |                                  |                        | 28                        | 8.4                     | <0.20                      | 6.4                              | <0.20                              | 0.37                  |                   | Duplicate of DISCH 6/25/14    |
| DUP  | 12/19/14                   | 12/19/14     |                              |            |                   |           |                         |                                  |                        | 0.92                      | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   | Duplicate of RMW-8 12/19/2014 |
| Trip Blank   | 6/25/14                    | 6/25/14      |                              |            |                   |           |                         |                                  |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              |                       |                   |                               |
| DUP  | 9/22/14                    | 9/22/14      |                              |            |                   |           |                         |                                  |                        | 66                        | 16                      | <0.40                      | <0.40                            | <0.40                              | <0.40                 |                   | Duplicate of EX2 9/22/2014    |
| Trip Blank   | 3/18/15                    | 3/18/15      |                              |            |                   |           |                         |                                  |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                               |
| DUP  | 3/18/15                    | 3/18/15      |                              |            |                   |           |                         |                                  |                        | <0.40                     | 1.0                     | <0.40                      | 54                               | 0.65                               | 19                    | <0.40             | Duplicate of RMW-7 3/18/2015  |
| Trip Blank   | 9/11/15                    | 9/11/15      |                              |            |                   |           |                         |                                  |                        | <0.20                     | <0.20                   | <0.20                      | <0.20                            | <0.20                              | <0.20                 |                   |                               |
| DUP  | 9/11/15                    | 9/11/15      |                              |            |                   |           |                         |                                  |                        | 23                        | 1.7                     | <0.20                      | 0.62                             | <0.20                              | <0.20                 | 0.91              |                               |
| Trip Blank   | 12/8/15                    | 12/8/15      |                              |            |                   |           |                         |                                  |                        | <0.2                      | <0.2                    | <0.20                      | <0.2                             | <0.20                              | <0.2                  |                   |                               |
| DUP  | 12/8/15                    | 12/8/15      |                              |            |                   |           |                         |                                  |                        | 2.8                       | 0.6                     | <0.2                       | <0.2                             | <0.2                               | <0.2                  |                   | Duplicate of RMW-4 12/8/15    |

**Bold** indicates analyte detected at a concentration greater than the laboratory reporting limit  
**Yellow highlight** indicates analyte exceeds MTCA cleanup level  
 MTCA = Model Toxic Control Act  
 KCIWD = King County Industrial Waste Discharge limit  
 Blank – Not analyzed  
 NA – Not applicable

**Table 3**  
**Soil Analytical Results, New Wells**

| Sample Identifier           | Date    | Sample Depth (feet bgs) | PCE* (mg/kg) | TCE* (mg/kg)  | (cis) 1,2-DCE* (mg/kg) | Vinyl Chloride* (mg/kg) |
|-----------------------------|---------|-------------------------|--------------|---------------|------------------------|-------------------------|
| RMW-12-5'                   | 7/22/16 | 5.0                     | <0.00088     | <0.00088      | <0.00088               | <0.00088                |
| RMW-12-12.5'                | 7/22/16 | 12.5                    | <b>0.012</b> | <b>0.0061</b> | <b>0.0029</b>          | <0.00091                |
| RMW-12-17.5'                | 7/22/16 | 17.5                    | <b>0.024</b> | <b>0.0025</b> | <b>0.0011</b>          | <0.00099                |
| RMW-12-22.5'                | 7/22/16 | 22.5                    | <b>0.590</b> | <b>0.0058</b> | <0.0010                | <0.0010                 |
| RMW-13-5'                   | 7/22/16 | 5.0                     | <0.00092     | <0.00092      | <0.00092               | <0.00092                |
| RMW-13-12.5'                | 7/22/16 | 12.5                    | <0.0015      | <0.0015       | <0.0015                | <0.0015                 |
| RMW-13-17.5'                | 7/22/16 | 17.5                    | <0.00096     | <0.00096      | <b>0.0014</b>          | <0.00096                |
| RMW-22.5                    | 7/22/16 | 22.5                    | <0.0010      | <0.0010       | <0.0010                | <0.0010                 |
| MTCA Method A Cleanup Level |         |                         | 0.05         | 0.03          | N/A                    | N/A                     |
| MTCA Method B Cleanup Level |         |                         | 476          | 12            | 160                    | 0.67                    |

**Notes:**

PCE – Tetrachloroethene

TCE – Trichloroethene

cis 1,2-DCE - cis 1,2-Dichloroethene

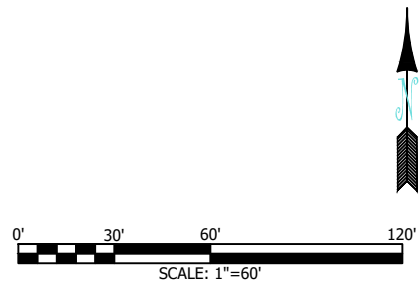
**Bold** – Analyte detected

**Bold / highlighted** – Analyte exceeds MTCA A cleanup level

mg/kg – milligrams per kilogram

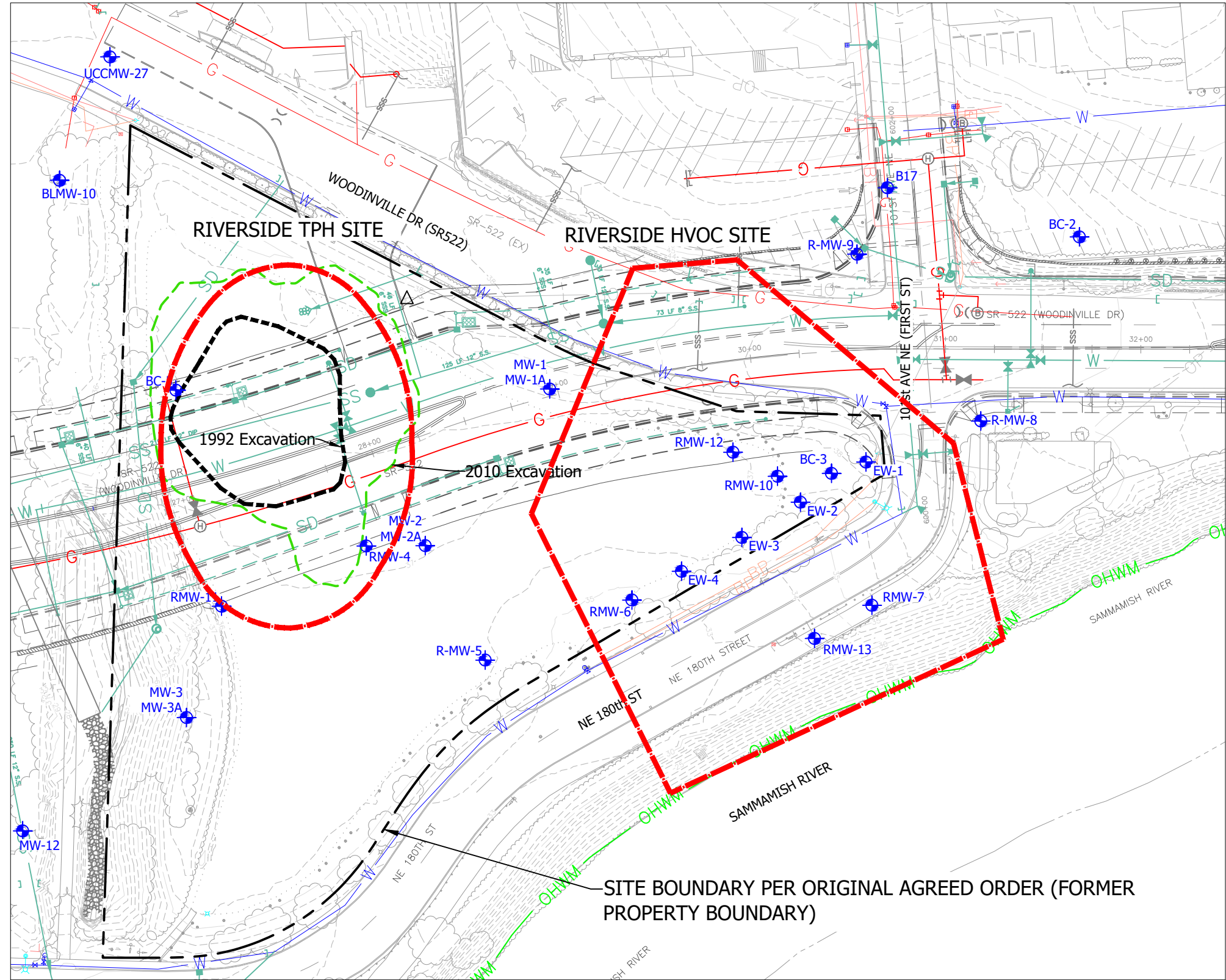
N/A – Not available

\* No other HVOCs were detected above laboratory reporting limits (see Appendix B For complete list of compounds analyzed).



**EXPLANATION OF SYMBOLS**

- APPROXIMATE EXTENT OF 2010 CLEANUP EXCAVATION
- APPROXIMATE EXTENT OF 1990'S CLEANUP
- APPROXIMATE PROPERTY BOUNDARY
- SITE BOUNDARY
- MONITORING WELL LOCATIONS



SITE BOUNDARY PER ORIGINAL AGREED ORDER (FORMER PROPERTY BOUNDARY)



**HWA GEOSCIENCES INC.**

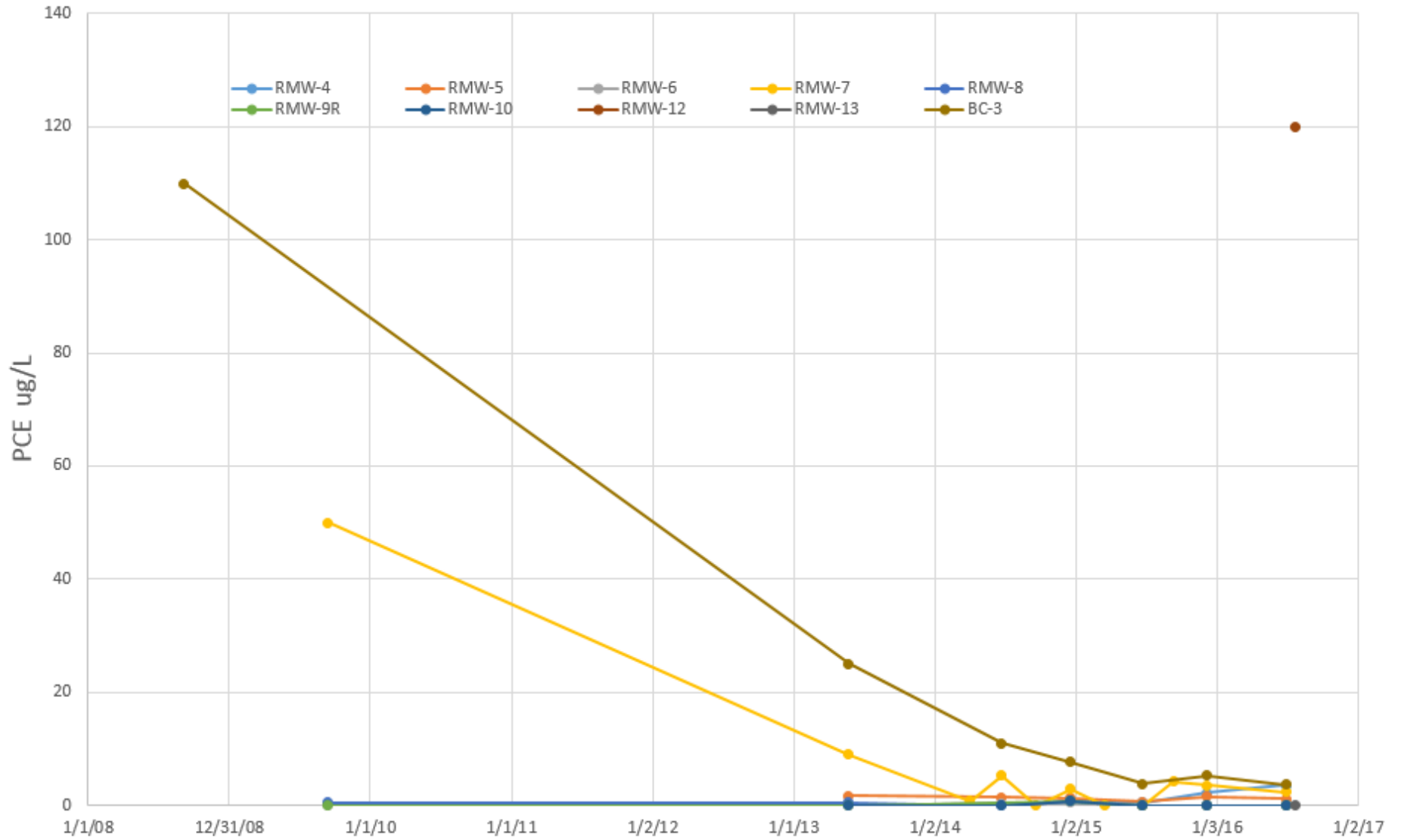
**BOTHELL RIVERSIDE RI REPORT  
BOTHELL, WASHINGTON**

**MONITORING WELL  
LOCATIONS**

DRAWN BY EFK  
CHECK BY AS  
DATE  
**08.09.16**

FIGURE NO.  
**1**  
PROJECT NO.  
**2007-098 T2012**

# RIVERSIDE MONITORING WELLS PCE (ug/L)



HWA GEOSCIENCES INC.

MONITORING WELLS PCE (UG/L)

BOTHELL RIVERSIDE SITE  
BOTHELL, WASHINGTON

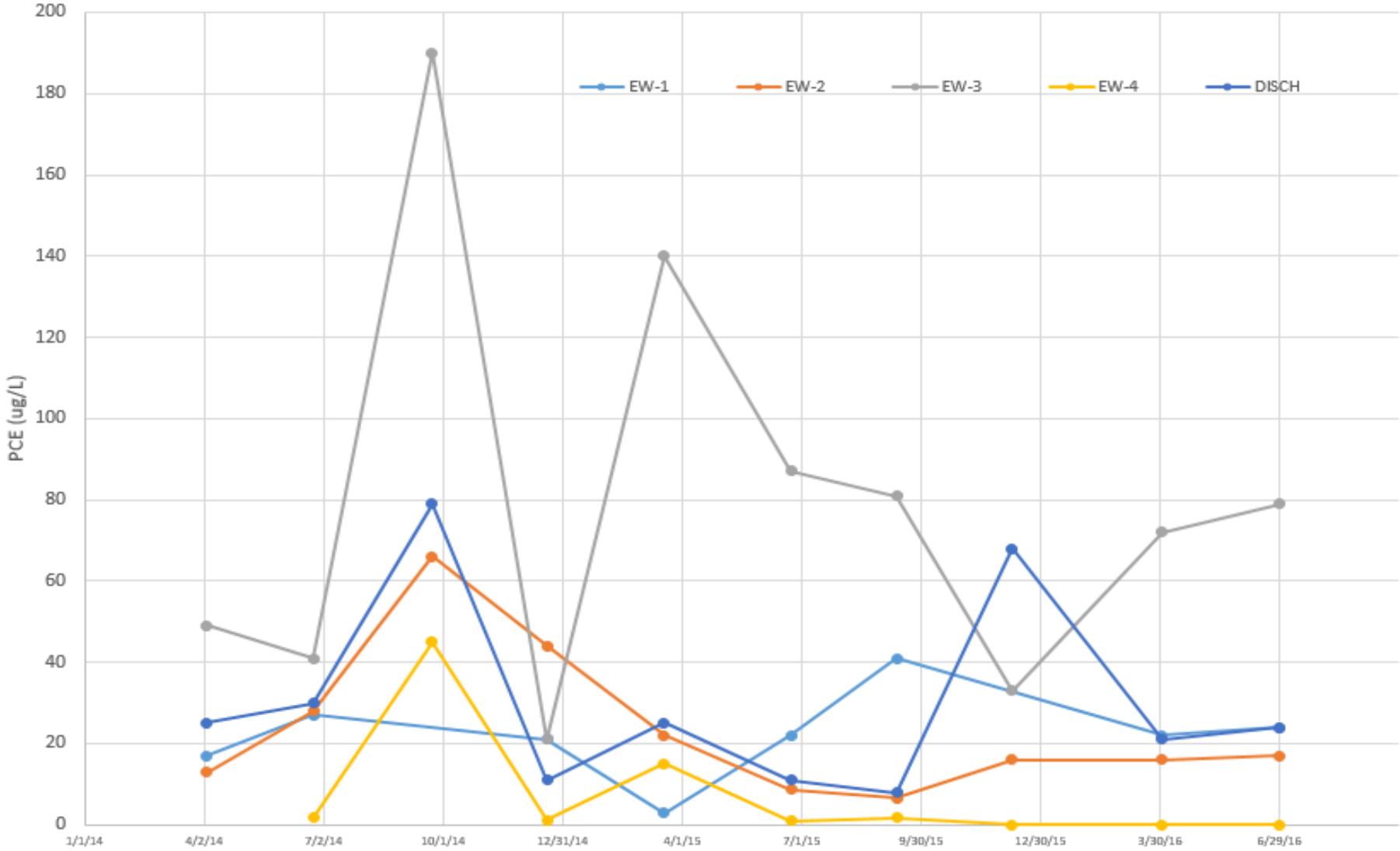
FIGURE NO.

2

PROJECT NO.

2007-098

### RIVERSIDE EXTRACTION WELLS PCE (ug/L)



HWA GEOSCIENCES INC.

EXTRACTION WELLS PCE (UG/L)

BOTHELL RIVERSIDE SITE  
BOTHELL, WASHINGTON

FIGURE NO.

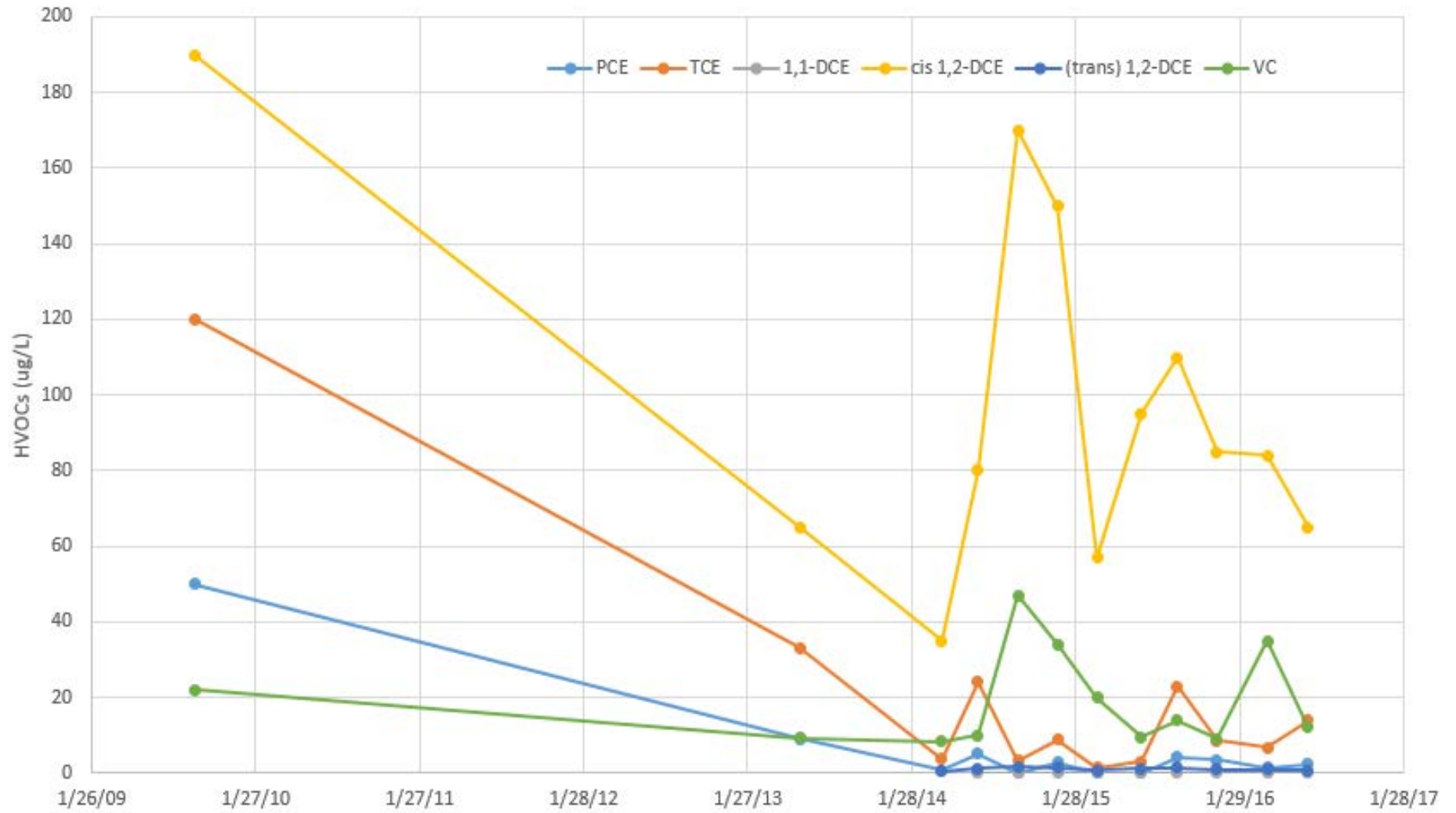
3

PROJECT NO

2007-098



RMW-7 HVOCs/Time



HWA GEOSCIENCES INC.

RMW-7 HVOCs (UG/L)

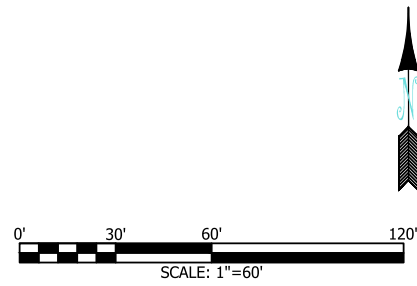
BOTHELL RIVERSIDE SITE  
BOTHELL, WASHINGTON

FIGURE NO.

4

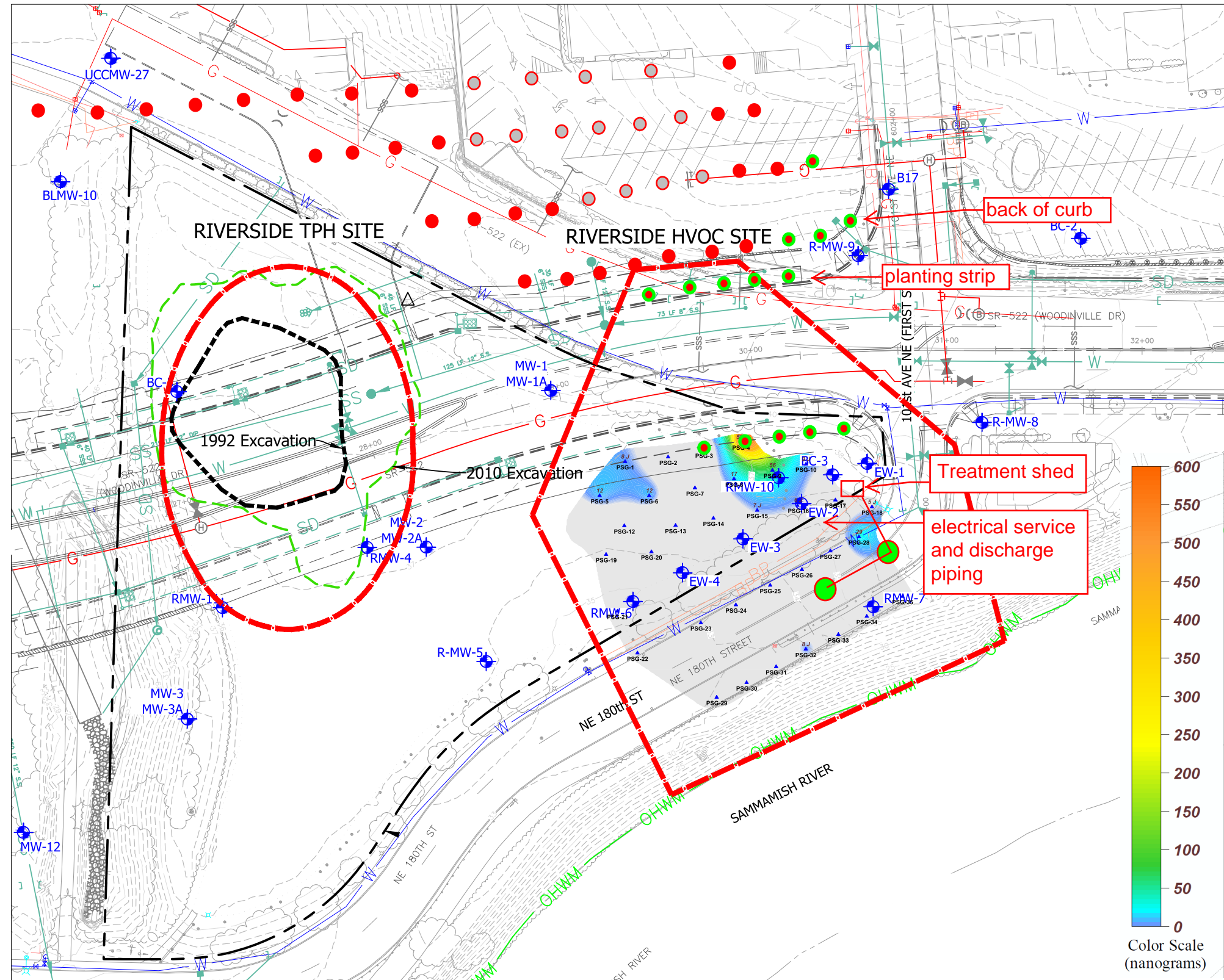
PROJECT NO

2007-098



**EXPLANATION OF SYMBOLS**

- APPROXIMATE EXTENT OF 2010 CLEANUP EXCAVATION
- APPROXIMATE EXTENT OF 1990'S CLEANUP
- APPROXIMATE PROPERTY BOUNDARY
- SITE BOUNDARY
  
- R-MW-10 MONITORING WELL LOCATIONS
- ▲ PHASE 1 SOIL GAS SAMPLES, JANUARY 2016
- PROPOSED (April 2016) PHASE 2 SOIL GAS SAMPLES
- FORMER PROPOSED LOCATIONS NOT ACCESSIBLE
- NEW (June 2016) PROPOSED PHASE 2 SOIL GAS SAMPLES



**HWA GEOSCIENCES INC.**

**BOTHELL RIVERSIDE RI REPORT  
BOTHELL, WASHINGTON**

**SOIL GAS SURVEY  
EXPLOATION PLAN**

DRAWN BY EFK  
CHECK BY AS  
DATE  
10.01.15

FIGURE NO.  
**1**  
PROJECT NO.  
2007-098 T2012

**APPENDIX A**

**YEAR 2016 QUARTERLY KING COUNTY INDUSTRIAL WASTE  
REPORTS**



King County

# Industrial Waste Quarterly Self-Monitoring Report

Send to: King County Industrial Waste  
130 Nickerson Street, Suite 200  
Seattle, WA 98109-1658  
Phone 206-263-3000 / FAX 206-263-3001  
Email: [info.KCIW@kingcounty.gov](mailto:info.KCIW@kingcounty.gov)

Company Name: **Bothell, City of - Riverside Groundwater Remediation Site**

This form is available at [www.kingcounty.gov/industrialwaste](http://www.kingcounty.gov/industrialwaste).

Please specify year: **2016**

**QUARTER 1**

Sample Site No.: **IW1175A**

Permit/DA No.: **4268-01**

| Month    | Sample Date                          | Sample Type<br>C (Composite)<br>G (Grab)<br>BC (Batch) | 1,2-Dichloro-ethylene<br>(Total cis & trans)<br>(µg/l) | Tetrachloro-ethylene<br>(PCE)<br>(µg/l) | Trichloro-ethylene<br>(TCE)<br>(µg/l) | Vinyl Chloride<br>(µg/l) | 1,1-Dichloro-ethane<br>(µg/l) | Settleable Solids<br>(ml/L) | Discharge Volume on sample day<br>(gallons) | Total Monthly Flow (gallons) |
|----------|--------------------------------------|--|--|---|---------------------------------------|--------------------------|-------------------------------|-----------------------------|---|------------------------------|
| January  |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          | Total volume discharged for January  |  |  |   |                                       |                          |                               |                             |   | 30,270                       |
| February |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          | Total volume discharged for February |  |  |   |                                       |                          |                               |                             |   | 64,234                       |
| March    |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          |                                      |  |  |   |                                       |                          |                               |                             |   |                              |
|          | 3/31/16                              | G  | 4.4  | 21                                      | 5.5                                   | <0.20                    | <0.20                         | 0                           | 12010                                       |                              |
|          | Total volume discharged for March    |  |  |   |                                       |                          |                               |                             |   | 356,845                      |

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested

Arnie Sugar, Designated rep. for City of Bothell per Delegation of signature form dated 8/22/13  
Signature of Principal Executive or Authorized Agent \_\_\_\_\_ Date \_\_\_\_\_

**Due date:** First quarter report is due by **April 15** each year.



King County

# Industrial Waste Quarterly Self-Monitoring Report

Send to: King County Industrial Waste  
130 Nickerson Street, Suite 200  
Seattle, WA 98109-1658  
Phone 206-263-3000 / FAX 206-263-3001  
Email: [info.KCIW@kingcounty.gov](mailto:info.KCIW@kingcounty.gov)

Company Name: Bothell, City of - Riverside Groundwater Remediation Site

This form is available at [www.kingcounty.gov/industrialwaste](http://www.kingcounty.gov/industrialwaste).

Please specify year: **2016**

**QUARTER 2**

Sample Site No.: IW1175A

Permit/DA No.: 4268-01

| Month | Sample Date                       | Sample Type<br>C (Composite)<br>G (Grab)<br>BC (Batch) | 1,2-Dichloro-ethylene<br>(Total cis & trans)<br>(µg/l) | Tetrachloro-ethylene<br>(PCE)<br>(µg/l) | Trichloro-ethylene<br>(TCE)<br>(µg/l) | Vinyl Chloride<br>(µg/l) | 1,1-Dichloro-ethane<br>(µg/l) | Settleable Solids<br>(ml/L) | Discharge Volume on sample day<br>(gallons) | Total Monthly Flow (gallons) |
|-------|-----------------------------------|--|--|---|---------------------------------------|--------------------------|-------------------------------|-----------------------------|---|------------------------------|
| April |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       | Total volume discharged for April |  |  |   |                                       |                          |                               |                             |   |                              |
| May   |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       | Total volume discharged for May   |  |  |   |                                       |                          |                               |                             |   |                              |
| June  |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       |                                   |  |  |   |                                       |                          |                               |                             |   |                              |
|       | 6/29/16                           | G  | 4.6  | 24                                      | 5.7                                   | <0.20                    | <0.20                         | 0                           | 15,537                                      |                              |
|       | Total volume discharged for June  |  |  |   |                                       |                          |                               |                             |   |                              |

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Arnie Sugar, Designated rep. for City of Bothell per Delegation of signature form dated 8/22/13

Signature of Principal Executive or Authorized Agent

Date

**Due date: Second quarter report is due by July 15 each year.**

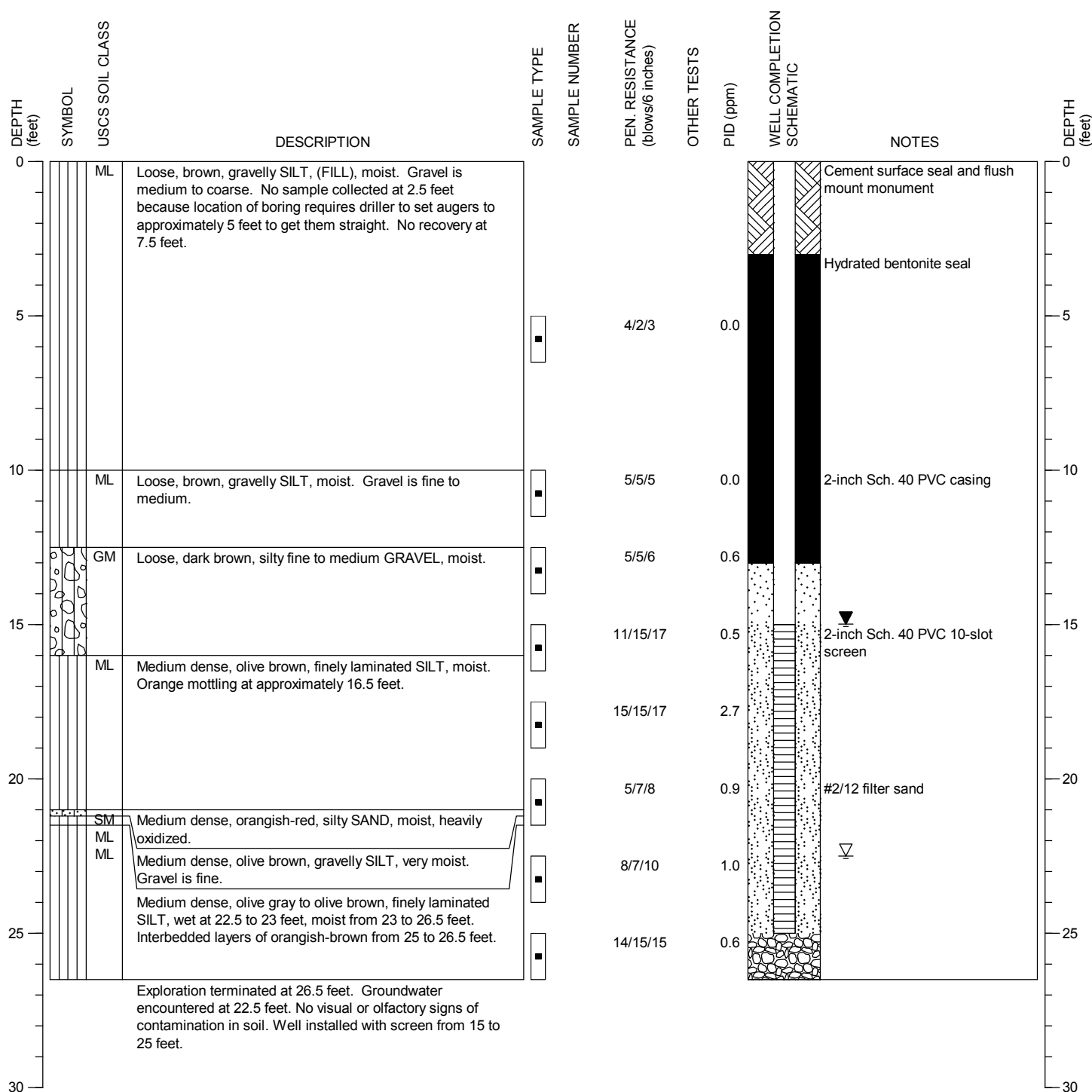
**APPENDIX B**

**SUBSURFACE BORING LOGS, NEW WELLS**

DRILLING COMPANY: Cascade Drilling, Inc.  
 DRILLING METHOD: Hollow Stem Auger, Modified CME-55  
 SAMPLING METHOD: D&M Split Spoon with 300 lb hammer  
 LOCATION: North of Gravel Parking Lot

SURFACE ELEVATION: ± feet  
 CASING ELEVATION: ± feet

DATE STARTED: 7/22/2016  
 DATE COMPLETED: 7/22/2016  
 LOGGED BY: A. York



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



Bothell Crossroads RI/FS  
 Bothell, Washington

MONITORING WELL:  
 RMW-12

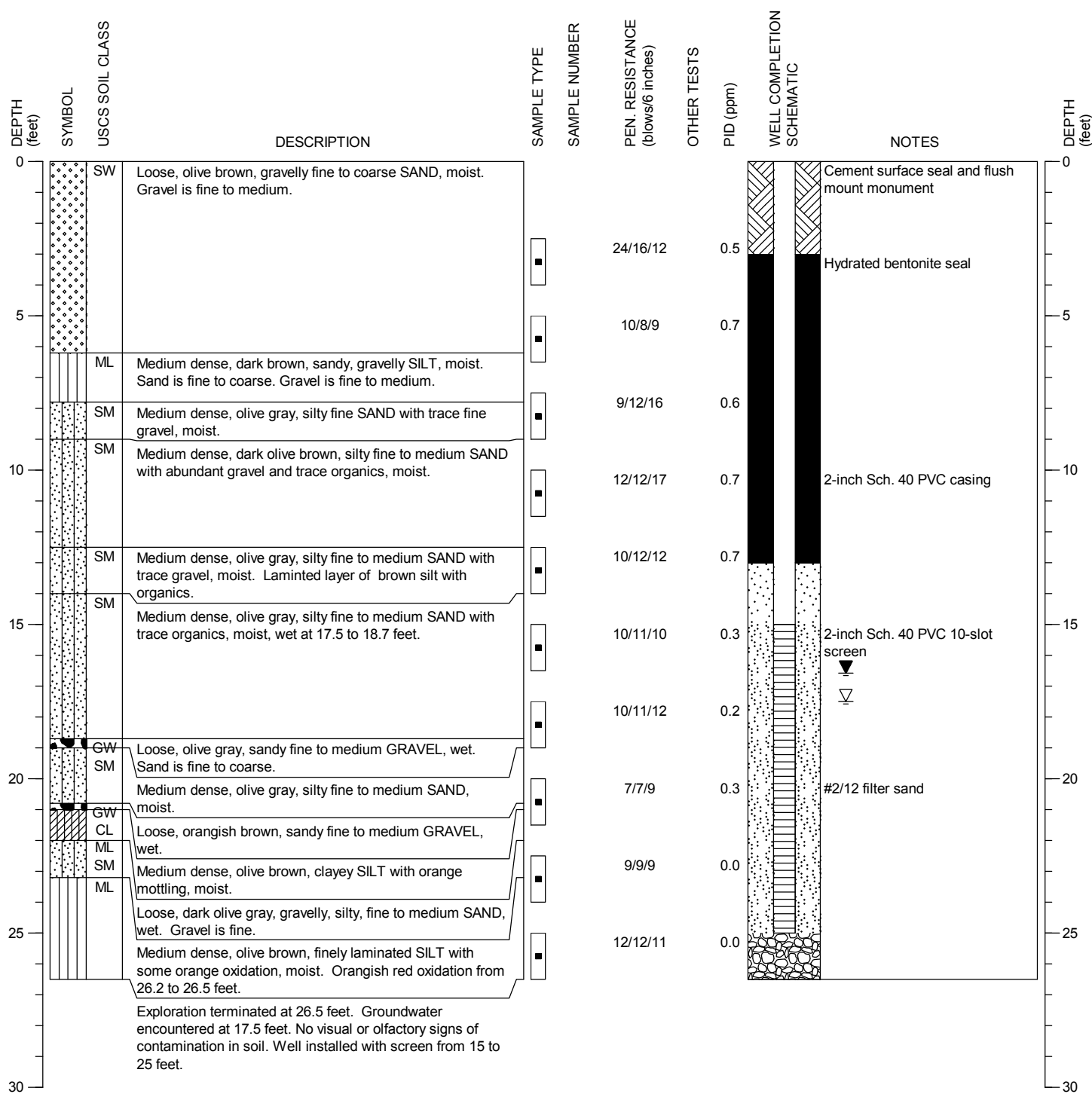
PAGE: 1 of 1

PROJECT NO.: 2007-098-800 FIGURE:

DRILLING COMPANY: Cascade Drilling, Inc.  
 DRILLING METHOD: Hollow Stem Auger, Modified CME-55  
 SAMPLING METHOD: D&M Split Spoon with 300 lb hammer  
 LOCATION: Paved Pathway South of 180th

SURFACE ELEVATION: ± feet  
 CASING ELEVATION: ± feet

DATE STARTED: 7/22/2016  
 DATE COMPLETED: 7/22/2016  
 LOGGED BY: A. York



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



Bothell Crossroads RI/FS  
 Bothell, Washington

MONITORING WELL:  
 RMW-13

PAGE: 1 of 1

PROJECT NO.: 2007-098-800 FIGURE:



## **APPENDIX C**

### **LABORATORY ANALYTICAL RESULTS, NEW WELLS**



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 7, 2016

Arnie Sugar  
HWA GeoSciences, Inc.  
21312 30th Drive SE, Suite 110  
Bothell, WA 98021

Re: Analytical Data for Project 2007-098-22  
Laboratory Reference No. 1606-334

Dear Arnie:

Enclosed are the analytical results and associated quality control data for samples submitted on June 30, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 7, 2016  
Samples Submitted: June 30, 2016  
Laboratory Reference: 1606-334  
Project: 2007-098-22

### Case Narrative

Samples were collected on June 29 and 30, 2016 and received by the laboratory on June 30, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

| <b>Analyte</b>              | <b>Result</b> | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|---------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>EW-1</b>   |            |               |                      |                      |              |
| Laboratory ID:              | 06-334-01     |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloromethane               | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Vinyl Chloride              | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromomethane                | ND            | 0.36       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroethane                | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichlorofluoromethane      | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethene          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Iodomethane                 | ND            | 2.1        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Methylene Chloride          | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,2-Dichloroethene  | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,2-Dichloroethene    | 4.5           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromochloromethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroform                  | 0.32          | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1,1-Trichloroethane       | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Carbon Tetrachloride        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloropropene         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichloroethene             | 4.2           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Dibromomethane              | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromodichloromethane        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2-Chloroethyl Vinyl Ether   | ND            | 1.4        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,3-Dichloropropene   | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,3-Dichloropropene | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |



Date of Report: July 7, 2016  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>EW-1</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-01               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 24                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>98</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>100</i>              | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>95</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result      | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>EW-2</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-02   |      |           |               |               |       |
| Dichlorodifluoromethane     | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND          | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND          | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | 3.2         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 4.1         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND          | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>EW-2</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-02               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 17                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>94</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>92</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>91</i>               | <i>80-125</i>         |           |               |               |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Water  
 Units: ug/L

| <b>Analyte</b>              | <b>Result</b> | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|---------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>EW-3</b>   |            |               |                      |                      |              |
| Laboratory ID:              | 06-334-03     |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloromethane               | ND            | 2.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Vinyl Chloride              | 0.43          | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromomethane                | ND            | 0.72       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroethane                | ND            | 2.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichlorofluoromethane      | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethene          | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Iodomethane                 | ND            | 4.2        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Methylene Chloride          | ND            | 2.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,2-Dichloroethene  | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethane          | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2,2-Dichloropropane         | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,2-Dichloroethene    | 14            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromochloromethane          | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroform                  | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1,1-Trichloroethane       | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Carbon Tetrachloride        | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloropropene         | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloroethane          | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichloroethene             | 24            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloropropane         | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Dibromomethane              | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromodichloromethane        | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2-Chloroethyl Vinyl Ether   | ND            | 2.8        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,3-Dichloropropene   | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,3-Dichloropropene | ND            | 0.40       | EPA 8260C     | 7-6-16               | 7-6-16               |              |





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**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>EW-3</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-03               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 79                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>94</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>98</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>100</i>              | <i>80-125</i>         |           |               |               |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Water  
 Units: ug/L

| <b>Analyte</b>              | <b>Result</b> | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|---------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>EW-4</b>   |            |               |                      |                      |              |
| Laboratory ID:              | 06-334-04     |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloromethane               | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Vinyl Chloride              | 0.61          | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromomethane                | ND            | 0.36       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroethane                | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichlorofluoromethane      | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethene          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Iodomethane                 | ND            | 2.1        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Methylene Chloride          | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,2-Dichloroethene  | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,2-Dichloroethene    | 3.5           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromochloromethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroform                  | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1,1-Trichloroethane       | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Carbon Tetrachloride        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloropropene         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichloroethene             | 1.2           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Dibromomethane              | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromodichloromethane        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2-Chloroethyl Vinyl Ether   | ND            | 1.4        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,3-Dichloropropene   | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,3-Dichloropropene | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>EW-4</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-04               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>97</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>97</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result      | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>DISC</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-05   |      |           |               |               |       |
| Dichlorodifluoromethane     | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND          | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND          | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | 4.6         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 5.7         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND          | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>DISC</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-05               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 24                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>94</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>96</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result      | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>BC-3</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-06   |      |           |               |               |       |
| Dichlorodifluoromethane     | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND          | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND          | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND          | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 0.93        | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND          | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND          | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>BC-3</b>             |                       |           |               |               |       |
| Laboratory ID:              | 06-334-06               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 3.7                     | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>102</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>97</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>95</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result       | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-4</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-07    |      |           |               |               |       |
| Dichlorodifluoromethane     | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND           | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND           | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 0.46         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND           | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |





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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-4</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-07               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 3.6                     | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>104</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>100</i>              | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>99</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 7, 2016  
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Matrix: Water

Units: ug/L

| Analyte                     | Result       | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-5</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-08    |      |           |               |               |       |
| Dichlorodifluoromethane     | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND           | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND           | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 0.31         | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND           | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-5</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-08               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 1.1                     | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>95</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>93</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>92</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water  
 Units: ug/L

| <b>Analyte</b>              | <b>Result</b> | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|---------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>RMW-6</b>  |            |               |                      |                      |              |
| Laboratory ID:              | 06-334-09     |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloromethane               | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Vinyl Chloride              | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromomethane                | ND            | 0.36       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroethane                | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichlorofluoromethane      | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethene          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Iodomethane                 | ND            | 2.1        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Methylene Chloride          | ND            | 1.0        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,2-Dichloroethene  | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,2-Dichloroethene    | 1.3           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromochloromethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Chloroform                  | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1,1-Trichloroethane       | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Carbon Tetrachloride        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,1-Dichloropropene         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloroethane          | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Trichloroethene             | 2.5           | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 1,2-Dichloropropane         | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Dibromomethane              | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| Bromodichloromethane        | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| 2-Chloroethyl Vinyl Ether   | ND            | 1.4        | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (cis) 1,3-Dichloropropene   | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |
| (trans) 1,3-Dichloropropene | ND            | 0.20       | EPA 8260C     | 7-6-16               | 7-6-16               |              |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-6</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-09               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>100</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>99</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result       | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-7</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-10    |      |           |               |               |       |
| Dichlorodifluoromethane     | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND           | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | 12           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND           | 0.72 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND           | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND           | 4.2  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND           | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | 0.68         | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | 65           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 14           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND           | 2.8  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND           | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-7</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-10               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 2.3                     | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>94</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>100</i>              | <i>80-125</i>         |           |               |               |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

### HALOGENATED VOLATILES EPA 8260C

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Matrix: Water

Units: ug/L

| Analyte                     | Result       | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-8</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-11    |      |           |               |               |       |
| Dichlorodifluoromethane     | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND           | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND           | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND           | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |





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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-8</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-11               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>103</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>97</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result       | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-9</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-12    |      |           |               |               |       |
| Dichlorodifluoromethane     | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND           | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND           | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND           | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND           | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND           | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-9</b>            |                       |           |               |               |       |
| Laboratory ID:              | 06-334-12               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>101</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>99</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water  
 Units: ug/L

| Analyte                     | Result        | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-10</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-13     |      |           |               |               |       |
| Dichlorodifluoromethane     | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND            | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND            | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND            | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND            | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND            | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND            | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND            | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-10</b>           |                       |           |               |               |       |
| Laboratory ID:              | 06-334-13               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>98</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>94</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>92</i>               | <i>80-125</i>         |           |               |               |       |



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Matrix: Water

Units: ug/L

| Analyte                     | Result          | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-----------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>DUP-0629</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-14       |      |           |               |               |       |
| Dichlorodifluoromethane     | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND              | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | 13              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND              | 0.72 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND              | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND              | 4.2  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND              | 2.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | 0.72            | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | 66              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | 13              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND              | 2.8  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND              | 0.40 | EPA 8260C | 7-6-16        | 7-6-16        |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>DUP-0629</b>         |                       |           |               |               |       |
| Laboratory ID:              | 06-334-14               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | 2.2                     | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 2.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.40                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>96</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>99</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>100</i>              | <i>80-125</i>         |           |               |               |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

### HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Water

Units: ug/L

| Analyte                     | Result            | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>Trip Blank</b> |      |           |               |               |       |
| Laboratory ID:              | 06-334-15         |      |           |               |               |       |
| Dichlorodifluoromethane     | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND                | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND                | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND                | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND                | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND                | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND                | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND                | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |





Date of Report: July 7, 2016  
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**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>Trip Blank</b>       |                       |           |               |               |       |
| Laboratory ID:              | 06-334-15               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>101</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>100</i>              | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>99</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water

Units: ug/L

| Analyte                     | Result   | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|----------|------|-----------|---------------|---------------|-------|
| Laboratory ID:              | MB0706W1 |      |           |               |               |       |
| Dichlorodifluoromethane     | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloromethane               | ND       | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Vinyl Chloride              | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromomethane                | ND       | 0.36 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroethane                | ND       | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichlorofluoromethane      | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethene          | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Iodomethane                 | ND       | 2.1  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Methylene Chloride          | ND       | 1.0  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,2-Dichloroethene  | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloroethane          | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2,2-Dichloropropane         | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,2-Dichloroethene    | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromochloromethane          | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chloroform                  | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1-Trichloroethane       | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Carbon Tetrachloride        | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1-Dichloropropene         | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloroethane          | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Trichloroethene             | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichloropropane         | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromomethane              | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromodichloromethane        | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chloroethyl Vinyl Ether   | ND       | 1.4  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (cis) 1,3-Dichloropropene   | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |
| (trans) 1,3-Dichloropropene | ND       | 0.20 | EPA 8260C | 7-6-16        | 7-6-16        |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| Laboratory ID:              | MB0706W1                |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-6-16        | 7-6-16        |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>92</i>               | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>93</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>92</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 7, 2016  
 Samples Submitted: June 30, 2016  
 Laboratory Reference: 1606-334  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

| Analyte              | Result   |      | Spike Level |      | Percent Recovery |        | Recovery | RPD   |    | Flags |
|----------------------|----------|------|-------------|------|------------------|--------|----------|-------|----|-------|
|                      |          |      |             |      | Recovery         | Limits | RPD      | Limit |    |       |
| <b>SPIKE BLANKS</b>  |          |      |             |      |                  |        |          |       |    |       |
| Laboratory ID:       | SB0706W1 |      |             |      |                  |        |          |       |    |       |
|                      | SB       | SBD  | SB          | SBD  | SB               | SBD    |          |       |    |       |
| 1,1-Dichloroethene   | 9.75     | 9.05 | 10.0        | 10.0 | 98               | 91     | 62-132   | 7     | 20 |       |
| Benzene              | 10.3     | 9.71 | 10.0        | 10.0 | 103              | 97     | 75-121   | 6     | 15 |       |
| Trichloroethene      | 10.1     | 9.15 | 10.0        | 10.0 | 101              | 92     | 65-115   | 10    | 15 |       |
| Toluene              | 10.7     | 9.94 | 10.0        | 10.0 | 107              | 99     | 78-120   | 7     | 15 |       |
| Chlorobenzene        | 10.9     | 10.1 | 10.0        | 10.0 | 109              | 101    | 77-118   | 8     | 15 |       |
| <i>Surrogate:</i>    |          |      |             |      |                  |        |          |       |    |       |
| Dibromofluoromethane |          |      |             |      | 99               | 92     | 71-131   |       |    |       |
| Toluene-d8           |          |      |             |      | 101              | 94     | 80-127   |       |    |       |
| 4-Bromofluorobenzene |          |      |             |      | 96               | 91     | 80-125   |       |    |       |





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference











14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 26, 2016

Arnie Sugar  
HWA GeoSciences, Inc.  
21312 30th Drive SE, Suite 110  
Bothell, WA 98021

Re: Analytical Data for Project 2007-098-22  
Laboratory Reference No. 1607-216

Dear Arnie:

Enclosed are the analytical results and associated quality control data for samples submitted on July 25, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: July 26, 2016  
Samples Submitted: July 25, 2016  
Laboratory Reference: 1607-216  
Project: 2007-098-22

### Case Narrative

Samples were collected on July 25, 2016 and received by the laboratory on July 25, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: July 26, 2016  
 Samples Submitted: July 25, 2016  
 Laboratory Reference: 1607-216  
 Project: 2007-098-22

### HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Water

Units: ug/L

| Analyte                     | Result        | PQL | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------|-----|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12</b> |     |           |               |               |       |
| Laboratory ID:              | 07-216-01     |     |           |               |               |       |
| Dichlorodifluoromethane     | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND            | 5.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND            | 5.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND            | 5.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND            | 10  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | 14            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | 19            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND            | 9.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND            | 1.0 | EPA 8260C | 7-25-16       | 7-25-16       |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 25, 2016  
 Laboratory Reference: 1607-216  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12</b>           |                       |           |               |               |       |
| Laboratory ID:              | 07-216-01               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | 120                     | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 5.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 5.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>104</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>96</i>               | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>89</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 25, 2016  
 Laboratory Reference: 1607-216  
 Project: 2007-098-22

### HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Water

Units: ug/L

| Analyte                     | Result        | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------|------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13</b> |      |           |               |               |       |
| Laboratory ID:              | 07-216-02     |      |           |               |               |       |
| Dichlorodifluoromethane     | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND            | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | 0.24          | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND            | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND            | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND            | 2.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | 1.8           | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | 0.26          | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND            | 1.8  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND            | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |



Date of Report: July 26, 2016  
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 Laboratory Reference: 1607-216  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13</b>           |                       |           |               |               |       |
| Laboratory ID:              | 07-216-02               |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>106</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>102</i>              | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>93</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 25, 2016  
 Laboratory Reference: 1607-216  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water

Units: ug/L

| Analyte                     | Result | PQL  | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|--------|------|-----------|---------------|---------------|-------|
| Laboratory ID: MB0725W2     |        |      |           |               |               |       |
| Dichlorodifluoromethane     | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND     | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND     | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND     | 1.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND     | 2.0  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND     | 1.8  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND     | 0.20 | EPA 8260C | 7-25-16       | 7-25-16       |       |



Date of Report: July 26, 2016  
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 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| Laboratory ID:              |                         | MB0725W2              |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 1.0                   | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.20                  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>106</i>              | <i>71-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>102</i>              | <i>80-127</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>95</i>               | <i>80-125</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 25, 2016  
 Laboratory Reference: 1607-216  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

| Analyte              | Result      |             | Spike Level |      | Percent Recovery |        | Recovery | RPD   |    | Flags |
|----------------------|-------------|-------------|-------------|------|------------------|--------|----------|-------|----|-------|
|                      |             |             |             |      | Recovery         | Limits | RPD      | Limit |    |       |
| <b>SPIKE BLANKS</b>  |             |             |             |      |                  |        |          |       |    |       |
| Laboratory ID:       | SB0725W1    |             |             |      |                  |        |          |       |    |       |
|                      | SB          | SBD         | SB          | SBD  | SB               | SBD    |          |       |    |       |
| 1,1-Dichloroethene   | <b>10.7</b> | <b>11.8</b> | 10.0        | 10.0 | 107              | 118    | 62-132   | 10    | 20 |       |
| Benzene              | <b>9.83</b> | <b>11.0</b> | 10.0        | 10.0 | 98               | 110    | 75-121   | 11    | 15 |       |
| Trichloroethene      | <b>7.98</b> | <b>8.67</b> | 10.0        | 10.0 | 80               | 87     | 65-115   | 8     | 15 |       |
| Toluene              | <b>10.3</b> | <b>11.3</b> | 10.0        | 10.0 | 103              | 113    | 78-120   | 9     | 15 |       |
| Chlorobenzene        | <b>10.0</b> | <b>10.7</b> | 10.0        | 10.0 | 100              | 107    | 77-118   | 7     | 15 |       |
| <i>Surrogate:</i>    |             |             |             |      |                  |        |          |       |    |       |
| Dibromofluoromethane |             |             |             |      | 100              | 99     | 71-131   |       |    |       |
| Toluene-d8           |             |             |             |      | 95               | 94     | 80-127   |       |    |       |
| 4-Bromofluorobenzene |             |             |             |      | 89               | 88     | 80-125   |       |    |       |







### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 26, 2016

Arnie Sugar  
HWA GeoSciences, Inc.  
21312 30th Drive SE, Suite 110  
Bothell, WA 98021

Re: Analytical Data for Project 2007-098-22  
Laboratory Reference No. 1607-204

Dear Arnie:

Enclosed are the analytical results and associated quality control data for samples submitted on July 22, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 26, 2016  
Samples Submitted: July 22, 2016  
Laboratory Reference: 1607-204  
Project: 2007-098-22

### Case Narrative

Samples were collected on July 22, 2016 and received by the laboratory on July 22, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Halogenated Volatiles EPA 8260C Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| <b>Analyte</b>              | <b>Result</b>    | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|------------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>RMW-12-5'</b> |            |               |                      |                      |              |
| <b>Laboratory ID:</b>       | <b>07-204-01</b> |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloromethane               | ND               | 0.0044     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Vinyl Chloride              | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromomethane                | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloroethane                | ND               | 0.0044     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Trichlorofluoromethane      | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloroethene          | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Iodomethane                 | ND               | 0.0044     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Methylene Chloride          | ND               | 0.0044     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (trans) 1,2-Dichloroethene  | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloroethane          | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 2,2-Dichloropropane         | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (cis) 1,2-Dichloroethene    | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromochloromethane          | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloroform                  | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1,1-Trichloroethane       | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Carbon Tetrachloride        | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloropropene         | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,2-Dichloroethane          | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Trichloroethene             | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,2-Dichloropropane         | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Dibromomethane              | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromodichloromethane        | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 2-Chloroethyl Vinyl Ether   | ND               | 0.0044     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (cis) 1,3-Dichloropropene   | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (trans) 1,3-Dichloropropene | ND               | 0.00088    | EPA 8260C     | 7-25-16              | 7-25-16              |              |



Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-5'</b>        |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-01</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0044                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0044                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.00088               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>107</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>108</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>92</i>               | <i>60-146</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result              | PQL     | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------------|---------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-12.5'</b> |         |           |               |               |       |
| Laboratory ID:              | 07-204-03           |         |           |               |               |       |
| Dichlorodifluoromethane     | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND                  | 0.0045  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND                  | 0.0045  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND                  | 0.0045  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND                  | 0.0045  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | 0.0029              | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | 0.0061              | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0045  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND                  | 0.00091 | EPA 8260C | 7-25-16       | 7-25-16       |       |



Date of Report: July 26, 2016  
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 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-12.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-03</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | 0.012                   | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0045                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0045                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.00091               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>112</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>115</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>102</i>              | <i>60-146</i>         |           |               |               |       |





Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result              | PQL     | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------------|---------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-17.5'</b> |         |           |               |               |       |
| Laboratory ID:              | 07-204-05           |         |           |               |               |       |
| Dichlorodifluoromethane     | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND                  | 0.0050  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND                  | 0.0050  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND                  | 0.0050  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND                  | 0.0050  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | 0.0011              | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | 0.0025              | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0050  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND                  | 0.00099 | EPA 8260C | 7-25-16       | 7-25-16       |       |



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 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-17.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-05</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | 0.024                   | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0050                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0050                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.00099               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>114</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>117</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>109</i>              | <i>60-146</i>         |           |               |               |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result              | PQL    | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------------|--------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-22.5'</b> |        |           |               |               |       |
| Laboratory ID:              | 07-204-07           |        |           |               |               |       |
| Dichlorodifluoromethane     | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND                  | 0.0052 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND                  | 0.0052 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND                  | 0.0052 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND                  | 0.0052 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | 0.0058              | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0052 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-12-22.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-07</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | 0.59                    | 0.062                 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2,2-Tetrachloroethane | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0052                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0052                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>110</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>116</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>102</i>              | <i>60-146</i>         |           |               |               |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result           | PQL     | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|------------------|---------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-5'</b> |         |           |               |               |       |
| Laboratory ID:              | 07-204-10        |         |           |               |               |       |
| Dichlorodifluoromethane     | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND               | 0.0046  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND               | 0.0046  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND               | 0.0046  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND               | 0.0046  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND               | 0.0046  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND               | 0.00092 | EPA 8260C | 7-25-16       | 7-25-16       |       |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-5'</b>        |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-10</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0046                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0046                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.00092               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>118</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>121</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>100</i>              | <i>60-146</i>         |           |               |               |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| <b>Analyte</b>              | <b>Result</b>       | <b>PQL</b> | <b>Method</b> | <b>Date Prepared</b> | <b>Date Analyzed</b> | <b>Flags</b> |
|-----------------------------|---------------------|------------|---------------|----------------------|----------------------|--------------|
| <b>Client ID:</b>           | <b>RMW-13-12.5'</b> |            |               |                      |                      |              |
| <b>Laboratory ID:</b>       | <b>07-204-13</b>    |            |               |                      |                      |              |
| Dichlorodifluoromethane     | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloromethane               | ND                  | 0.0074     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Vinyl Chloride              | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromomethane                | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloroethane                | ND                  | 0.0074     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Trichlorofluoromethane      | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloroethene          | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Iodomethane                 | ND                  | 0.0074     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Methylene Chloride          | ND                  | 0.0074     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (trans) 1,2-Dichloroethene  | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloroethane          | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 2,2-Dichloropropane         | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (cis) 1,2-Dichloroethene    | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromochloromethane          | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Chloroform                  | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1,1-Trichloroethane       | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Carbon Tetrachloride        | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,1-Dichloropropene         | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,2-Dichloroethane          | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Trichloroethene             | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 1,2-Dichloropropane         | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Dibromomethane              | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| Bromodichloromethane        | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0074     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (cis) 1,3-Dichloropropene   | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |
| (trans) 1,3-Dichloropropene | ND                  | 0.0015     | EPA 8260C     | 7-25-16              | 7-25-16              |              |



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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-12.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-13</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0074                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0074                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.0015                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>107</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>100</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>88</i>               | <i>60-146</i>         |           |               |               |       |





Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result              | PQL     | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------------|---------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-17.5'</b> |         |           |               |               |       |
| Laboratory ID:              | 07-204-15           |         |           |               |               |       |
| Dichlorodifluoromethane     | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND                  | 0.0048  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND                  | 0.0048  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND                  | 0.0048  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND                  | 0.0048  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | 0.0014              | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0048  | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND                  | 0.00096 | EPA 8260C | 7-25-16       | 7-25-16       |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-17.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-15</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0048                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0048                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.00096               | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>110</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>114</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>103</i>              | <i>60-146</i>         |           |               |               |       |



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 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result              | PQL    | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|---------------------|--------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-22.5'</b> |        |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-17</b>    |        |           |               |               |       |
| Dichlorodifluoromethane     | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND                  | 0.0051 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND                  | 0.0051 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND                  | 0.0051 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND                  | 0.0051 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND                  | 0.0051 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND                  | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |



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**HALOGENATED VOLATILES EPA 8260C**  
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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| <b>Client ID:</b>           | <b>RMW-13-22.5'</b>     |                       |           |               |               |       |
| <b>Laboratory ID:</b>       | <b>07-204-17</b>        |                       |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0051                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0051                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>101</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>104</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>85</i>               | <i>60-146</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result   | PQL    | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|----------|--------|-----------|---------------|---------------|-------|
| Laboratory ID:              | MB0725S1 |        |           |               |               |       |
| Dichlorodifluoromethane     | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloromethane               | ND       | 0.0050 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Vinyl Chloride              | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromomethane                | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroethane                | ND       | 0.0050 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichlorofluoromethane      | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethene          | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Iodomethane                 | ND       | 0.0050 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Methylene Chloride          | ND       | 0.0050 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,2-Dichloroethene  | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloroethane          | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2,2-Dichloropropane         | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,2-Dichloroethene    | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromochloromethane          | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chloroform                  | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1-Trichloroethane       | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Carbon Tetrachloride        | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1-Dichloropropene         | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloroethane          | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Trichloroethene             | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichloropropane         | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromomethane              | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromodichloromethane        | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chloroethyl Vinyl Ether   | ND       | 0.0050 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (cis) 1,3-Dichloropropene   | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |
| (trans) 1,3-Dichloropropene | ND       | 0.0010 | EPA 8260C | 7-25-16       | 7-25-16       |       |



Date of Report: July 26, 2016  
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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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| Analyte                     | Result                  | PQL                   | Method    | Date Prepared | Date Analyzed | Flags |
|-----------------------------|-------------------------|-----------------------|-----------|---------------|---------------|-------|
| Laboratory ID:              |                         | MB0725S1              |           |               |               |       |
| 1,1,2-Trichloroethane       | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Tetrachloroethene           | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichloropropane         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Dibromochloromethane        | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromoethane           | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Chlorobenzene               | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,1,2-Tetrachloroethane   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromoform                   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Bromobenzene                | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,1,2,2-Tetrachloroethane   | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichloropropane      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 2-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 4-Chlorotoluene             | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,3-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,4-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dichlorobenzene         | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2-Dibromo-3-chloropropane | ND                      | 0.0050                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,4-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| Hexachlorobutadiene         | ND                      | 0.0050                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| 1,2,3-Trichlorobenzene      | ND                      | 0.0010                | EPA 8260C | 7-25-16       | 7-25-16       |       |
| <i>Surrogate:</i>           | <i>Percent Recovery</i> | <i>Control Limits</i> |           |               |               |       |
| <i>Dibromofluoromethane</i> | <i>113</i>              | <i>76-131</i>         |           |               |               |       |
| <i>Toluene-d8</i>           | <i>115</i>              | <i>80-126</i>         |           |               |               |       |
| <i>4-Bromofluorobenzene</i> | <i>108</i>              | <i>60-146</i>         |           |               |               |       |



Date of Report: July 26, 2016  
 Samples Submitted: July 22, 2016  
 Laboratory Reference: 1607-204  
 Project: 2007-098-22

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

| Analyte                     | Result        |               | Spike Level |        | Percent Recovery |     | Recovery | RPD | RPD   | Flags |
|-----------------------------|---------------|---------------|-------------|--------|------------------|-----|----------|-----|-------|-------|
|                             |               |               |             |        | SB               | SBD | Limits   | RPD | Limit |       |
| <b>SPIKE BLANKS</b>         |               |               |             |        |                  |     |          |     |       |       |
| Laboratory ID:              | SB0725S1      |               |             |        |                  |     |          |     |       |       |
|                             | SB            | SBD           | SB          | SBD    | SB               | SBD |          |     |       |       |
| 1,1-Dichloroethene          | <b>0.0498</b> | <b>0.0478</b> | 0.0500      | 0.0500 | 100              | 96  | 68-126   | 4   | 15    |       |
| Benzene                     | <b>0.0520</b> | <b>0.0514</b> | 0.0500      | 0.0500 | 104              | 103 | 75-121   | 1   | 15    |       |
| Trichloroethene             | <b>0.0507</b> | <b>0.0504</b> | 0.0500      | 0.0500 | 101              | 101 | 75-120   | 1   | 15    |       |
| Toluene                     | <b>0.0524</b> | <b>0.0539</b> | 0.0500      | 0.0500 | 105              | 108 | 80-120   | 3   | 15    |       |
| Chlorobenzene               | <b>0.0461</b> | <b>0.0488</b> | 0.0500      | 0.0500 | 92               | 98  | 76-120   | 6   | 15    |       |
| <i>Surrogate:</i>           |               |               |             |        |                  |     |          |     |       |       |
| <i>Dibromofluoromethane</i> |               |               |             |        | 113              | 105 | 76-131   |     |       |       |
| <i>Toluene-d8</i>           |               |               |             |        | 116              | 108 | 80-126   |     |       |       |
| <i>4-Bromofluorobenzene</i> |               |               |             |        | 101              | 103 | 60-146   |     |       |       |



Date of Report: July 26, 2016  
Samples Submitted: July 22, 2016  
Laboratory Reference: 1607-204  
Project: 2007-098-22

### % MOISTURE

Date Analyzed: 7-25-16

| Client ID    | Lab ID    | % Moisture |
|--------------|-----------|------------|
| RMW-12-5'    | 07-204-01 | 6          |
| RMW-12-12.5' | 07-204-03 | 13         |
| RMW-12-17.5' | 07-204-05 | 16         |
| RMW-12-22.5' | 07-204-07 | 19         |
| RMW-13-5'    | 07-204-10 | 11         |
| RMW-13-12.5' | 07-204-13 | 29         |
| RMW-13-17.5' | 07-204-15 | 15         |
| RMW-13-22.5' | 07-204-17 | 17         |







### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





