# M E M O R A N D U M

**TO:** Mr. Frank Stauff (PMF Investments, LLC)

**FROM:** Greg Lish, LG
William Carroll, LG, LHG

**DATE:** June 26, 2012

**RE:** Limited Subsurface Investigation
King Property
2885 78th Avenue Southeast
Mercer Island, Washington

Pacific Crest Environmental, LLC (Pacific Crest) has prepared this memorandum to provide PMF Investments, LLC (PMF) with a summary of the limited subsurface investigation (LSI) activities conducted at the property located at 2885 78th Avenue Southeast Mercer Island, Washington (the Subject Property) (Figure 1). The LSI was conducted in accordance with the *Proposal for Limited Subsurface Investigation and Reporting,* dated April 20, 2012, as part of the due diligence activities prior to the potential purchase of the Subject Property.

## BACKGROUND

The Subject Property (King County Tax Parcel 531510-1326) is an irregular-shaped parcel totaling approximately 0.99 acres in Mercer Island, Washington (Figure 1). Improvements to the Subject Property include a single story commercial building of approximately 12,100 square feet built in 1962. The remainder of the Subject Property is developed with an asphalt-paved parking lot. The Subject Property is currently owned by King Enterprises of WA, LLC (King Enterprises).

Pacific Crest identified the following recognized environmental conditions to the Subject Property during the preparation of a Phase I Environmental Site Assessment (Phase I ESA):

- Historic and current dry cleaning operations located on the Subject Property. A+ Cleaners, a dry cleaning business operating on the Subject Property, currently uses tetrachloroethene (PCE), a halogenated volatile organic compound (HVOC), in their dry cleaning machine. An open and unlabeled container of an unknown liquid was observed adjacent to the dry cleaning machine, which uses PCE, and stained concrete around the base of the dry cleaning machine was observed, indicating spills of PCE may have previously occurred.
- A reported release of petroleum hydrocarbons occurred at the southeast-adjacent (hydraulically up-gradient) property located at 2918 78th Avenue Southeast which

resulted in the confirmed presence of total petroleum hydrocarbons (TPH) in soil and the suspected presence of TPH and HVOCs in groundwater.

- Several historical/inactive dry cleaners located within approximately 0.1-miles south of the Subject Property (hydraulically up-gradient) between 3006-3051 78th Avenue Southeast. A reported release of dry cleaning solvent occurred at one of the identified dry cleaners which resulted in the confirmed presence of HVOCs in soil, groundwater, and surface water (i.e. - storm sewer).
- A reported release of petroleum hydrocarbons at the Mercer Island Fire Station property located at 3030 78th Avenue Southeast which resulted in the presence of TPH in soil and the suspected presence of TPH in groundwater approximately 0.1-miles south of the Subject Property (hydraulically up-gradient).

Additionally, Pacific Crest identified the following historical recognized environmental condition to the Subject Property:

- A reported historical release of petroleum hydrocarbons at the south-adjacent (hydraulically up-gradient) Shell-branded retail gasoline station property located at 2903 78th Avenue Southeast which resulted in the presence of TPH in soil and groundwater. The Washington State Department of Ecology (Ecology) issued a No Further Action (NFA) determination for the site associated with this release in November 2008.

## OBJECTIVES AND SCOPE OF WORK

The objective of the LSI was to assess if recognized environmental conditions identified during preparation of the Phase I ESA, prepared by Pacific Crest, have impacted soil and/or groundwater beneath the Subject Property with concentrations of petroleum hydrocarbons and/or hazardous substances associated with historical operations (i.e., dry cleaning facilities and automotive related activities).

The LSI scope of work included: advancing four soil borings to approximately 10-feet below ground surface (bgs)(first encountered groundwater); collecting soil and reconnaissance groundwater samples and observing the conditions encountered; submitting select soil and reconnaissance groundwater samples to an independent laboratory for analysis; and evaluating the results with respect to the Model Toxics Control Act (MTCA) Cleanup Regulations [Chapter 173-340 Washington Administrative Code (WAC)]. A narrative summary of the field activities is provided below.

## FIELD ACTIVITIES

Activities to locate underground utilities were conducted prior to initiating invasive sampling activities at the Subject Property both by Washington's One-Call Utility Locate service and Applied Professional Services, Inc., of North Bend, Washington (APS), a private utility locating company.

On May 1, 2012, ESN Northwest (ESN) of Olympia, Washington advanced four soil borings (KP-1 through KP-4) to depths ranging from 8 to 10 feet bgs using a truck-mounted Geoprobe™ rig. Approximate boring locations are indicated on Figure 1.

During drilling, a Pacific Crest geologist was on-site to direct the field activities and to collect soil and reconnaissance groundwater samples from the borings. Soil samples were collected continuously in all borings during drilling using a 2-inch diameter macro-core sampler equipped with vinyl acetate liners. Upon retrieval from the borings, the sampler was opened and the liner cut open to expose the samples for soil classification in accordance with the Unified Soils Classification System (USCS) and inspected for evidence of visual and olfactory indication of contamination.

Soil vapor headspace analysis was conducted to field screen the samples for total volatile organic compound (TVOC) concentrations using a photoionization detector (PID). The soil vapor headspace analysis was performed by placing a portion of soil from each sample interval into a re-sealable plastic bag, allowing the sample to warm for several minutes, and recording the highest TVOC concentration inside the bag measured over a 30-second span using a PID. The USCS descriptions, observations of contamination, and field screening data were recorded on boring logs. Upon completion, the borings were backfilled with bentonite to within 6 inches of the surface, and sealed at the surface with asphalt cold-patch. Boring logs are provided in Appendix A.

Based on the results of field screening, one soil sample from each boring was collected for chemical analysis and placed into laboratory-prepared sample containers in accordance with SW-846 Method 5035 or SW-846 Method 5030. All samples were appropriately labeled, placed into a cooler on ice, and transported to OnSite Environmental, Inc. (OnSite) of Redmond, Washington, under standard chain-of-custody protocols for analysis on a standard turnaround time. OnSite analyzed the soil samples for halogenated volatile organic compounds (HVOCs) by SW-846 Method 8260B and for hydrocarbon identification (HCID) by Ecology Method NWTPH-HCID and prepared a report documenting the results. Based on the results of the HCID analysis, the soil sample collected from boring KP-3 was also analyzed for TPH as diesel range organics (DRO) and oil range organics (ORO) by Ecology Method NWTPH-Dx.

Pacific Crest also collected reconnaissance groundwater samples from each of the four borings. Groundwater samples were collected through a two-foot long direct push stainless steel retractable groundwater sampler. Groundwater samples were collected with the bottom of the groundwater sample screen set between 8 and 10 feet bgs. Groundwater sampling was performed using a peristaltic pump and dedicated polyethylene tubing. Groundwater samples for laboratory analysis were transferred directly from the dedicated tubing into laboratory-prepared sample containers preserved with hydrochloric acid. The vials were completely filled with water to eliminate potential loss of volatiles to headspace, and each vial was checked to ensure that there were no air bubbles present in the sample. All sample containers were labeled, placed on ice in a cooler, and transported to OnSite under standard chain-of-custody protocol for analysis on a standard turnaround time. OnSite analyzed the reconnaissance groundwater samples for HVOCs by SW-846 Method 8260B and HCID by Ecology Method NWTPH-HCID.

## RESULTS

The soil and reconnaissance groundwater sample analytical results are summarized on Table 1 and Table 2, respectively. A copy of the laboratory analytical report is provided in Appendix B. The results of this investigation are summarized as follows:

*Soil*

- Subsurface conditions encountered in the soil borings consisted of clay, silt, sand and gravel.
- TVOC concentrations measured with a PID during field screening of soil ranged from 0.0 part per million (ppm) to 3.2 ppm.
- Laboratory analysis of the sample from KP-3 detected TPH as ORO at a concentration of 580 milligrams per kilogram (mg/kg), which does not exceed the MTCA Method A cleanup level for ORO in soil of 2,000 mg/kg.
- Laboratory analysis of the remaining soil samples did not detect TPH or HVOCs at concentrations above their respective laboratory practical quantitation limit (PQL).

*Reconnaissance Groundwater*

- Groundwater was encountered in the borings at depths ranging between 4 and 10 feet bgs.
- Laboratory analysis of the reconnaissance groundwater samples did not detect TPH or HVOCs at concentrations above their respective laboratory PQLs.

## DISCUSSION

The results of the LSI indicate that the recognized environmental conditions identified during preparation of the Phase I ESA do not appear to have impacted soil or groundwater beneath the Subject Property with TPH or HVOCs at concentrations of regulatory concern.

## LIMITATIONS

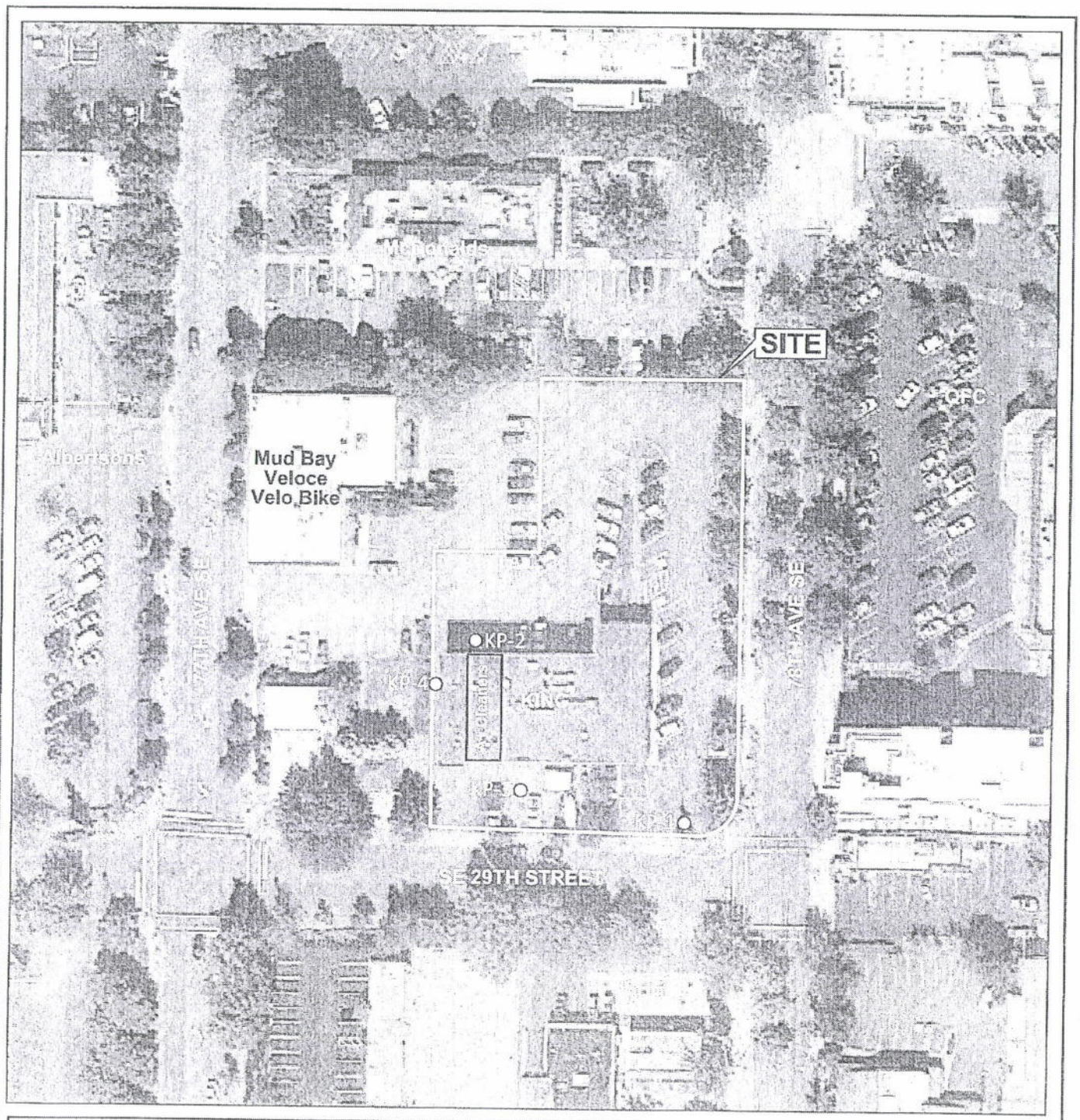
The findings and recommendations contained in this memorandum are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following limitations:

- Accuracy of Information. Certain information used by Pacific Crest in this report has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although the conclusions, opinions, and recommendations are based in part on such information, Pacific Crest services did not include the verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Pacific Crest reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- The conclusions and recommendations presented in this report are based upon the data obtained. It is possible that additional information, including additional sampling and analyses of soil and groundwater, could alter the conclusions of this report.
- No environmental investigation is infallible. Some uncertainty will always exist concerning the presence or absence of potentially adverse conditions at any particular property, irrespective of the rigor of the investigation. Accordingly, Pacific Crest offers no warranty that adverse environmental conditions, other than those identified in this report, do not exist or may not exist there in the future.

## CLOSING

Pacific Crest appreciates the opportunity to provide environmental consulting services to PMF. Please do not hesitate to contact the undersigned at 425.888.4990 if you have questions regarding the information provided herein.

Attachments: Figure 1 – Site Location Map with Boring Locations
Table 1 – Soil Analytical Results Summary
Table 2 – Reconnaissance Groundwater Analytical Results Summary
Appendix A – Boring Logs
Appendix B – Laboratory Analytical Report




**Legend**

KP-1O Boring Location (approximate)

Property Boundary

N

0 80

Approximate Scale in Feet

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King Property
2885 78th Avenue Southeast
Mercer Island, Washington

PN: 143-005

**Figure 1**

Site Location Map with Boring Locations

6/26/2012 10:02 AM Drafting \\Pacific-8e185af\public\Project Files\143 PMF Investments\143-005 King Property\Figures\143-005-002.dwg FIG 1

**Table 1**
**Soil Analytical Results Summary**
**King Property**
**2885 78th Avenue Southeast**
**Mercer Island, Washington**
**Pacific Crest Project No. 143-005**

| Sample ID | Sampled By | Sample Date | Sample Depth[1] | TPH (mg/kg)[2] | | | HVOCs (mg/kg)[3] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | GRO | DRO | ORO | Tetrachloroethene | Trichloroethene | (cis) 1,2-Dichloroethene | (trans) 1,2-Dichloroethene | Vinyl Chloride |
| KP1-050112-8-10 | Pacific Crest | 5/1/2012 | 8-10 | <23 | <58 | <120 | <0.00090 | <0.00090 | <0.00090 | <0.00090 | <0.00090 |
| KP2-050112-0.75-4 | Pacific Crest | 5/1/2012 | 0.75-4 | <28 | <70 | <140 | <0.0012 | <0.0012 | <0.0012 | <0.0012 | <0.0012 |
| KP3-050112-4-5 | Pacific Crest | 5/1/2012 | 4-5 | <25 | <31 | 580 | <0.0011 | <0.0011 | <0.0011 | <0.0011 | <0.0011 |
| KP4-050112-4.5-8 | Pacific Crest | 5/1/2012 | 4.5-8 | <28 | <71 | <140 | <0.0013 | <0.0013 | <0.0013 | <0.0013 | <0.0013 |
| Model Toxics Control Act Method A Cleanup Levels for Soil[4] | | | | 100 | 2,000 | 2,000 | 0.05 | 0.03 | -- | -- | -- |

NOTE:

**BOLD** = concentration exceeds applicable MTCA Method A Cleanup Level

< = analyte not detected at or above the laboratory practical quantitation limit.

[1]Depth in feet below ground surface.

[2]Analyzed by Ecology Method NWTPH-HCID, and Method NWTPH-Dx, as necessary.

[3]Analyzed by Ecology Method SW-846 8260B.

[4]Table 740-1 of the Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 of the Washington Administrative Code, revised November 2007.

Pacific Crest = Pacific Crest Environmental, LLC

mg/kg = milligrams per kilogram

TPH = total petroleum hydrocarbons

HVOCs = halogenated volatile organic compounds

GRO = gasoline range organics

DRO = diesel range organics

ORO = oil range organics

**Table 2**
**Reconnaissance Groundwater Analytical Results Summary**
**King Property**
**2885 78th Avenue Southeast**
**Mercer Island, Washington**
**Pacific Crest Project No. 143-005**

| | | | | TPH (ug/l)[2] | | | HVOCs (µg/l)[3] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sampled By | Sample Date | Sample Depth[1] | GRO | DRO | ORO | Tetrachloroethene | Trichloroethene | (cis) 1,2-Dichloroethene | (trans) 1,2-Dichloroethene | Vinyl Chloride |
| KP1-050112-10RG | Pacific Crest | 5/1/2012 | 10.0 | <0.11 | <0.28 | <0.45 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| KP2-050112-8RG | Pacific Crest | 5/1/2012 | 8.0 | <0.12 | <0.29 | <0.46 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| KP3-050112-10RG | Pacific Crest | 5/1/2012 | 10.0 | <0.11 | <0.27 | <0.44 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| KP4-050112-8RG | Pacific Crest | 5/1/2012 | 8.0 | <0.10 | <0.26 | <0.42 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Model Toxics Control Act Method A Cleanup Levels for Groundwater[4] | | | | **1,000** | **500** | **500** | 5 | **5** | -- | -- | 0.2 |

NOTE:

**BOLD** = concentration exceeds applicable MTCA Method A Cleanup Level

< = analyte not detected at or above the laboratory practical quantitation limit.

-- = not established

[1]Depth in feet below ground surface.

[2]Analyzed by Ecology Method NWTPH-HCID.

[3]Analyzed by Ecology Method SW-846 8260B.

[4]Table 720-1 of the Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 of the Washington Administrative Code, revised November 2007.

Pacific Crest = Pacific Crest Environmental, LLC

µg/l = micrograms per liter

TPH = total petroleum hydrocarbons

HVOCs = halogenated volatile organic compounds

GRO = gasoline range organics

DRO = diesel range organics

ORO = oil range organics

**APPENDIX A**
**BORING LOGS**

**LIMITED SUBSURFACE INVESTIGATION**
KING PROPERTY
2885 78TH AVENUE SOUTHEAST
MERCER ISLAND, WASHINGTON

PACIFIC CREST NO. 143-005

# LOG OF BORING KP-1

(Page 1 of 1)

| | |
|---|---|
| Date/Time Started | : 5-1-12/0905 |
| Date/Time Completed | : 5-1-12/1010 |
| Total Boring Depth (bgs) | : 10' |
| Depth to Water ATD | : 8' |
| Elevation (ft) | : N/A |
| Drilling Method | : Geoprobe |
| Sampler Type | : Macro Core |

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WWW.PCENV.COM 425-888-4990

Site Name: King Property

Client: PMF Investments, LLC

Project #: 143-005

| Depth In Feet | Water Level ATD | Sample | Lab No. | PID (ppm) | % Recovery | DESCRIPTION | USCS | GRAPHIC |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.0-0.5 - ASPHALT/CRUSHED ROCK | | |
| 1 | | | | | | 0.5-4.0 - CLAY, trace silt (95% clay, <5% silt) gray/green, moist, no odor. | CL | |
| 2 | | | | 0.0 | 75 | | | |
| 3 | | | | | | | | |
| 4 | | | | 0.0 | | 4.0-5.0 - Gravelly CLAY, trace silt (65% clay, 30% gravel, <5% silt), grey/green, moist, no odor. | CL | |
| 5 | | | | | | | | |
| 6 | | | | 0.0 | 80 | 5.0-8.0 - Clayey SILT, trace sand (65% silt, 30% clay, 5% fine to medium sand), brown, very moist, no odor. | ML | |
| 7 | | | | | | | | |
| 8 | ▼ | | | | | | | |
| 9 | | | KP1-050112-8-10 @0925 | 0.0 | 30 | 8.0-10.0 - Clayey SILT, trace sand (65% silt, 30% clay, 5% fine to medium sand), brown, wet, no odor. | ML | |
| 10 | | | | | | Bottom of boring at 10.0 feet. | | |
| 11 | | | | | | KP1-050112-10RG@0940 = groundwater sample | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
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| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

| | |
|---|---|
| Drilling Company | : ESN |
| Drilling Foreman | : - |
| Equipment | : Geoprobe |
| Back-Fill Material | : Bentonite/cold patch |
| Pacific Crest Rep. | : April Wiebenga |

LOG OF BORING KP-1

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05-12-2012 \\Pacific-fs185a\public\Project Files\143 PMF Investments\143-005 King Property\Boring Logs\KP-1.bo

# LOG OF BORING KP-2

(Page 1 of 1)

| | |
|---|---|
| Date/Time Started | : 5-1-12/1025 |
| Date/Time Completed | : 5-1-12/1110 |
| Total Boring Depth (bgs) | : 8' |
| Depth to Water ATD | : 8' |
| Elevation (ft) | : N/A |
| Drilling Method | : Geoprobe |
| Sampler Type | : Macro Core |

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: King Property

Client: PMF Investment, LLC

Project #: 143-005

| Depth In Feet | Water Level ATD | Sample | Lab No. | PID (ppm) | % Recovery | DESCRIPTION | USCS | GRAPHIC |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.0-0.75 - ASPHALT/CRUSHED ROCK | | |
| 1 | | | | | | 0.75-4.0 - CLAY trace silt (95% clay, <5% silt), grey/green/black, moist, no odor. | | |
| 2 | | | KP2-050112-0.75-4 @1040 | 1.6 | 60 | | CL | |
| 3 | | | | | | | | |
| 4 | | | | | | 4.0-8.0 - CLAY trace silt (95% clay, <5% silt), grey/green/black, moist grading to wet, no odor. | | |
| 5 | | | | | | | | |
| 6 | | | KP2-050112 5-8 @1045 | 1.7 | 100 | | CL | |
| 7 | | | | | | | | |
| 8 | ▼ | | | | | | | |
| 9 | | | | | | Bottom of boring at 8.0 feet. | | |
| 10 | | | | | | KP2-050112-8RG = groundwater sample | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
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| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

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|---|---|
| Drilling Company | : ESN |
| Drilling Foreman | : - |
| Equipment | : Geoprobe |
| Back-Fill Material | : Bentonite/cold patch |
| Pacific Crest Rep. | : April Wiebenga |

LOG OF BORING KP-2

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# LOG OF BORING KP-3

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PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: King Property

Client: PMF Investments, LLC

Project #: 143-005

| | |
|---|---|
| Date/Time Started | : 5-1-12/1130 |
| Date/Time Completed | : 5-1-12/1230 |
| Total Boring Depth (bgs) | : 10' |
| Depth to Water ATD | : 5' |
| Elevation (ft) | : N/A |
| Drilling Method | : Geoprobe |
| Sampler Type | : Macro Core |

| Depth In Feet | Water Level ATD | Sample | Lab No. | PID (ppm) | % Recovery | DESCRIPTION | USCS | GRAPHIC |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.0-0.75 - ASPHALT/CRUSHED ROCK | | |
| 1 | | | | | | 0.75-4.0 - CLAY with silt, trace gravel (80% clay, 15% silt, 5% gravel), green/grey, moist, no odor. | CL | |
| 2 | | | | 2.4 | 100 | | | |
| 3 | | | | | | | | |
| 4 | | | KP3-020112-4.0-5.0 @1155 | | | | | |
| 5 | ▽ | | | 3.2 | | 4.0-5.0 - Gravelly CLAY, trace silt (65% clay, 30% gravel, <5% silt), grey-green, moist, no odor. | CL | |
| 6 | | | | 1.4 | 100 | 5.0-6.0 - CLAY, trace silt (95% clay, <5% silt), grey/brown, wet, no odor. | ML | |
| 7 | | | KP3-050112-6.0-8.0 @1205 | 2.0 | | 6.0-10.0 - Clayey SAND, trace gravel (60% fine to coarse sand, 35% clay, 5% gravel), brown, wet, no odor. | SW | |
| 8 | | | | | | | | |
| 9 | | | | 1.0 | 40 | | | |
| 10 | | | | | | Bottom of boring at 10.0 feet. | | |
| 11 | | | | | | KP3-050112-10RG@1215 = groundwater sample | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
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| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

| | |
|---|---|
| Drilling Company | : ESN |
| Drilling Foreman | : - |
| Equipment | : Geoprobe |
| Back-Fill Material | : Bentonite/cold patch |
| Pacific Crest Rep. | : April Wiebenga |

LOG OF BORING KP-3

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# LOG OF BORING KP-4

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PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: King Property

Client: PMF Investments, LLC

Project #: 143-005

| | |
|---|---|
| Date/Time Started | : 5-1-12/1235 |
| Date/Time Completed | : 5-1-12/1310 |
| Total Boring Depth (bgs) | : 8' |
| Depth to Water ATD | : 4' |
| Elevation (ft) | : N/A |
| Drilling Method | : Geoprobe |
| Sampler Type | : Macro Core |

| Depth In Feet | Water Level ATD | Sample | Lab No. | PID (ppm) | % Recovery | DESCRIPTION | USCS | GRAPHIC |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.0-0.5 - ASPHALT/CRUSHED ROCK | | |
| 1 | | | | | | 0.5-3.0 - CLAYwith gravel, (70% clay, 30% gravel), green/grey/black, moist, no odor. | CL | |
| 2 | | | | 2.6 | 60 | | | |
| 3 | | | | | | 3.0-4.0 - CLAY, trace gravel (95% clay, 5% fine to coarse gravel), green/grey/black, moist, no odor. | CL | |
| 4 | ▽ | | | 1.3 | | 4.0-4.5 - Gravelly CLAY (60% clay, 40% fine to coarse gravel) green/grey/black, wet, no odor. | CL | |
| 5 | | | | | | 4.5-8.0 - CLAY trace gravel (95% clay, 5% gravel), green/grey/black, wet, no odor. | | |
| 6 | | | KP4-050112-4.5-8 @1255 | 1.7 | 100 | | CL | |
| 7 | | | | | | | | |
| 8 | | | | | | Bottom of boring at 8.0 feet. | | |
| 9 | | | | | | KP4-050112-8RG@1315 = groundwater sample | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
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| 13 | | | | | | | | |
| 14 | | | | | | | | |
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| | |
|---|---|
| Drilling Company | : ESN |
| Drilling Foreman | : - |
| Equipment | : Geoprobe |
| Back-Fill Material | : Bentonite/cold patch |
| Pacific Crest Rep. | : April Wiebenga |

LOG OF BORING KP-4

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**APPENDIX B**
**LABORATORY ANALYTICAL REPORT**

**LIMITED SUBSURFACE INVESTIGATION**
KING PROPERTY
2885 78TH AVENUE SOUTHEAST
MERCER ISLAND, WASHINGTON

PACIFIC CREST NO. 143-005

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 8, 2012

Greg Lish
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 143-005
Laboratory Reference No. 1205-014

Dear Greg:

Enclosed are the analytical results and associated quality control data for samples submitted on May 2, 2012.

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,

David Baumeister
Project Manager

Enclosures

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**Case Narrative**

Samples were collected on May 1, 2012 and received by the laboratory on May 2, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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 8260B (soil) 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: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-HCID**
**(with acid/silica gel clean-up)**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-8-10** | | | | | |
| Laboratory ID: | 05-014-01 | | | | | |
| Gasoline Range Organics | **ND** | 23 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Diesel Range Organics | **ND** | 58 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Lube Oil Range Organics | **ND** | 120 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *109* | *50-150* | | | | |
| **Client ID:** | **KP2-050112-0.75-4** | | | | | |
| Laboratory ID: | 05-014-03 | | | | | |
| Gasoline Range Organics | **ND** | 28 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Diesel Range Organics | **ND** | 70 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Lube Oil Range Organics | **ND** | 140 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *105* | *50-150* | | | | |
| **Client ID:** | **KP3-050112-4-5** | | | | | |
| Laboratory ID: | 05-014-06 | | | | | |
| Gasoline Range Organics | **ND** | 25 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Diesel Range Organics | **ND** | 62 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Lube Oil | **Detected** | 120 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *118* | *50-150* | | | | |
| **Client ID:** | **KP4-050112-4.5-8** | | | | | |
| Laboratory ID: | 05-014-09 | | | | | |
| Gasoline Range Organics | **ND** | 28 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Diesel Range Organics | **ND** | 71 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Lube Oil Range Organics | **ND** | 140 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *103* | *50-150* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-HCID**
**QUALITY CONTROL**
**(with acid/silica gel clean-up)**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB0503S2 | | | | | |
| Gasoline Range Organics | **ND** | 20 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Diesel Range Organics | **ND** | 50 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| Lube Oil Range Organics | **ND** | 100 | NWTPH-HCID | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *118* | *50-150* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-HCID**
**(with acid/silica gel clean-up)**

Matrix: Water
Units: mg/L (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-02 | | | | | |
| Gasoline Range Organics | **ND** | 0.11 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Diesel Range Organics | **ND** | 0.28 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Lube Oil Range Organics | **ND** | 0.45 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *100* | *50-150* | | | | |
| **Client ID:** | **KP2-050112-8RG** | | | | | |
| Laboratory ID: | 05-014-05 | | | | | |
| Gasoline Range Organics | **ND** | 0.12 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Diesel Range Organics | **ND** | 0.29 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Lube Oil Range Organics | **ND** | 0.46 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *104* | *50-150* | | | | |
| **Client ID:** | **KP3-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-08 | | | | | |
| Gasoline Range Organics | **ND** | 0.11 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Diesel Range Organics | **ND** | 0.27 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Lube Oil Range Organics | **ND** | 0.44 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *103* | *50-150* | | | | |
| **Client ID:** | **KP4-050112-8RG** | | | | | |
| Laboratory ID: | 05-014-10 | | | | | |
| Gasoline Range Organics | **ND** | 0.10 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Diesel Range Organics | **ND** | 0.26 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Lube Oil Range Organics | **ND** | 0.42 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *105* | *50-150* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-HCID**
**QUALITY CONTROL**
**(with acid/silica gel clean-up)**

Matrix: Water
Units: mg/L (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB0502W1 | | | | | |
| Gasoline Range Organics | ND | 0.10 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Diesel Range Organics | ND | 0.25 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| Lube Oil Range Organics | ND | 0.40 | NWTPH-HCID | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *104* | *50-150* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B



Matrix: Soil
Units: mg/kg

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-8-10** | | | | | |
| Laboratory ID: | 05-014-01 | | | | | |
| Dichlorodifluoromethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloromethane | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Vinyl Chloride | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromomethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroethane | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichlorofluoromethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Iodomethane | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Methylene Chloride | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2,2-Dichloropropane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromochloromethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroform | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1-Trichloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Carbon Tetrachloride | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloropropene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichloroethene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloropropane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromomethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromodichloromethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-8-10** | | | | | |
| Laboratory ID: | 05-014-01 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Tetrachloroethene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichloropropane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromochloromethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromoethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromoform | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichloropropane | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chlorotoluene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 4-Chlorotoluene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,4-Dichlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Hexachlorobutadiene | ND | 0.0045 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.00090 | EPA 8260 | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *93* | *63-127* | | | | |
| *Toluene-d8* | *96* | *65-129* | | | | |
| *4-Bromofluorobenzene* | *99* | *55-121* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 1 of 2

Matrix: Soil
Units: mg/kg

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| Client ID: | KP2-050112-0.75-4 | | | | | |
| Laboratory ID: | 05-014-03 | | | | | |
| Dichlorodifluoromethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloromethane | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Vinyl Chloride | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromomethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroethane | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichlorofluoromethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Iodomethane | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Methylene Chloride | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2,2-Dichloropropane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromochloromethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroform | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1-Trichloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Carbon Tetrachloride | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloropropene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichloroethene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloropropane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromomethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromodichloromethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP2-050112-0.75-4** | | | | | |
| Laboratory ID: | 05-014-03 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Tetrachloroethene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichloropropane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromochloromethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromoethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromoform | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichloropropane | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chlorotoluene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 4-Chlorotoluene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,4-Dichlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Hexachlorobutadiene | ND | 0.0062 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.0012 | EPA 8260 | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *96* | *63-127* | | | | |
| *Toluene-d8* | *101* | *65-129* | | | | |
| *4-Bromofluorobenzene* | *101* | *55-121* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B



Matrix: Soil
Units: mg/kg

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP3-050112-4-5** | | | | | |
| Laboratory ID: | 05-014-06 | | | | | |
| Dichlorodifluoromethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloromethane | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Vinyl Chloride | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromomethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroethane | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichlorofluoromethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Iodomethane | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Methylene Chloride | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2,2-Dichloropropane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromochloromethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroform | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1-Trichloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Carbon Tetrachloride | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloropropene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichloroethene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloropropane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromomethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromodichloromethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP3-050112-4-5** | | | | | |
| Laboratory ID: | 05-014-06 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Tetrachloroethene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichloropropane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromochloromethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromoethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromoform | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichloropropane | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chlorotoluene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 4-Chlorotoluene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,4-Dichlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Hexachlorobutadiene | ND | 0.0054 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.0011 | EPA 8260 | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *100* | *63-127* | | | | |
| *Toluene-d8* | *98* | *65-129* | | | | |
| *4-Bromofluorobenzene* | *93* | *55-121* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 1 of 2

Matrix: Soil
Units: mg/kg

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP4-050112-4.5-8** | | | | | |
| Laboratory ID: | 05-014-09 | | | | | |
| Dichlorodifluoromethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloromethane | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Vinyl Chloride | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromomethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroethane | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichlorofluoromethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Iodomethane | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Methylene Chloride | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2,2-Dichloropropane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromochloromethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroform | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1-Trichloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Carbon Tetrachloride | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloropropene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichloroethene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloropropane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromomethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromodichloromethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,3 Dichloropropene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP4-050112-4.5-8** | | | | | |
| Laboratory ID: | 05-014-09 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Tetrachloroethene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichloropropane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromochloromethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromoethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromoform | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichloropropane | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chlorotoluene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 4-Chlorotoluene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,4-Dichlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Hexachlorobutadiene | ND | 0.0064 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.0013 | EPA 8260 | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *91* | *63-127* | | | | |
| *Toluene-d8* | *92* | *65-129* | | | | |
| *4-Bromofluorobenzene* | *93* | *55-121* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B
## METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| Laboratory ID: | MB0502S1 | | | | | |
| Dichlorodifluoromethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloromethane | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Vinyl Chloride | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromomethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroethane | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichlorofluoromethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Iodomethane | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Methylene Chloride | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2,2-Dichloropropane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromochloromethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chloroform | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1-Trichloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Carbon Tetrachloride | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1-Dichloropropene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Trichloroethene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichloropropane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromomethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromodichloromethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
**METHOD BLANK QUALITY CONTROL**
Page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| Laboratory ID: | MB0502S1 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Tetrachloroethene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichloropropane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Dibromochloromethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromoethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Chlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromoform | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Bromobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichloropropane | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 2-Chlorotoluene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 4-Chlorotoluene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| Hexachlorobutadiene | ND | 0.0050 | EPA 8260 | 5-2-12 | 5-2-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.0010 | EPA 8260 | 5-2-12 | 5-2-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *101* | *63-127* | | | | |
| *Toluene-d8* | *102* | *65-129* | | | | |
| *4-Bromofluorobenzene* | *103* | *55-121* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B
## SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

| Analyte | Result | | Spike Level | | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| **SPIKE BLANKS** | | | | | | | | | | |
| Laboratory ID: | SB0502S1 | | | | | | | | | |
| | SB | SBD | SB | SBD | SB | SBD | | | | |
| 1,1-Dichloroethene | **0.0462** | **0.0467** | 0.0500 | 0.0500 | 92 | 93 | 70-130 | 1 | 19 | |
| Benzene | **0.0442** | **0.0445** | 0.0500 | 0.0500 | 88 | 89 | 70-125 | 1 | 15 | |
| Trichloroethene | **0.0472** | **0.0470** | 0.0500 | 0.0500 | 94 | 94 | 70-122 | 0 | 14 | |
| Toluene | **0.0464** | **0.0467** | 0.0500 | 0.0500 | 93 | 93 | 73-120 | 1 | 16 | |
| Chlorobenzene | **0.0531** | **0.0523** | 0.0500 | 0.0500 | 106 | 105 | 74-120 | 2 | 12 | |
| *Surrogate:* | | | | | | | | | | |
| *Dibromofluoromethane* | | | | | *95* | *95* | *63-127* | | | |
| *Toluene-d8* | | | | | *96* | *97* | *65-129* | | | |
| *4-Bromofluorobenzene* | | | | | *97* | *99* | *55-121* | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 1 of 2

Matrix: Water
Units: ug/L

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-02 | | | | | |
| Dichlorodifluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloromethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Vinyl Chloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichlorofluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Iodomethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Methylene Chloride | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroform | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Carbon Tetrachloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromodichloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP1-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-02 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Tetrachloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromoethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromoform | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 4-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,4-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Hexachlorobutadiene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *96* | *68-120* | | | | |
| *Toluene-d8* | *89* | *73-120* | | | | |
| *4-Bromofluorobenzene* | *88* | *65-120* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 1 of 2

Matrix: Water
Units: ug/L

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP2-050112-8RG** | | | | | |
| Laboratory ID: | 05-014-05 | | | | | |
| Dichlorodifluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloromethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Vinyl Chloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichlorofluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Iodomethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Methylene Chloride | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroform | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Carbon Tetrachloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromodichloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP2-050112-6RG** | | | | | |
| Laboratory ID: | 05-014-05 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Tetrachloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromoethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromoform | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 4-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,4-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Hexachlorobutadiene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *99* | *68-120* | | | | |
| *Toluene-d8* | *92* | *73-120* | | | | |
| *4-Bromofluorobenzene* | *91* | *65-120* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 1 of 2

Matrix: Water
Units: ug/L

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP3-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-08 | | | | | |
| Dichlorodifluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloromethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Vinyl Chloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichlorofluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Iodomethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Methylene Chloride | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroform | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Carbon Tetrachloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromodichloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP3-050112-10RG** | | | | | |
| Laboratory ID: | 05-014-08 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Tetrachloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromoethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromoform | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 4-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,4-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Hexachlorobutadiene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *96* | *68-120* | | | | |
| *Toluene-d8* | *89* | *73-120* | | | | |
| *4-Bromofluorobenzene* | *87* | *65-120* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B



Matrix: Water
Units: ug/L

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP4-050112-8RG** | | | | | |
| Laboratory ID: | 05-014-10 | | | | | |
| Dichlorodifluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloromethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Vinyl Chloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichlorofluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Iodomethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Methylene Chloride | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroform | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Carbon Tetrachloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromodichloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP4-050112-8RG** | | | | | |
| Laboratory ID: | 05-014-10 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Tetrachloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromoethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromoform | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 4-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,4-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Hexachlorobutadiene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *100* | *68-120* | | | | |
| *Toluene-d8* | *92* | *73-120* | | | | |
| *4-Bromofluorobenzene* | *93* | *65-120* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
**METHOD BLANK QUALITY CONTROL**
Page 1 of 2

Matrix: Water
Units: ug/L

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| Laboratory ID: | MB0503W1 | | | | | |
| Dichlorodifluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloromethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Vinyl Chloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichlorofluoromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Iodomethane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Methylene Chloride | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,2-Dichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chloroform | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Carbon Tetrachloride | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Trichloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromomethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromodichloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chloroethyl Vinyl Ether | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (cis) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| (trans) 1,3-Dichloropropene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
**METHOD BLANK QUALITY CONTROL**
Page 2 of 2

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| Laboratory ID: | MB0503W1 | | | | | |
| 1,1,2-Trichloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Tetrachloroethene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Dibromochloromethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromoethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Chlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromoform | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Bromobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichloropropane | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 2-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 4-Chlorotoluene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,3-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,4-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,4-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| Hexachlorobutadiene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| 1,2,3-Trichlorobenzene | ND | 0.20 | EPA 8260 | 5-3-12 | 5-3-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *Dibromofluoromethane* | *94* | *68-120* | | | | |
| *Toluene-d8* | *87* | *73-120* | | | | |
| *4-Bromofluorobenzene* | *84* | *65-120* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**HALOGENATED VOLATILES by EPA 8260B**
**SB/SBD QUALITY CONTROL**

Matrix: Water
Units: ug/L

| Analyte | Result | | Spike Level | | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| **SPIKE BLANKS** | | | | | | | | | | |
| Laboratory ID: | SB0503W1 | | | | | | | | | |
| | SB | SBD | SB | SBD | SB | SBD | | | | |
| 1,1-Dichloroethene | **10.9** | **10.4** | 10.0 | 10.0 | 109 | 104 | 70-130 | 5 | 11 | |
| Benzene | **10.3** | **10.2** | 10.0 | 10.0 | 103 | 102 | 75-123 | 1 | 8 | |
| Trichloroethene | **10.5** | **10.2** | 10.0 | 10.0 | 105 | 102 | 80-113 | 3 | 9 | |
| Toluene | **10.4** | **10.1** | 10.0 | 10.0 | 104 | 101 | 80-113 | 3 | 8 | |
| Chlorobenzene | **11.1** | **11.0** | 10.0 | 10.0 | 111 | 110 | 80-115 | 1 | 8 | |
| *Surrogate:* | | | | | | | | | | |
| *Dibromofluoromethane* | | | | | *94* | *93* | *68-120* | | | |
| *Toluene-d8* | | | | | *91* | *85* | *73-120* | | | |
| *4-Bromofluorobenzene* | | | | | *91* | *89* | *65-120* | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-Dx**
**(with acid/silica gel clean-up)**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **KP3-050112-4-5** | | | | | |
| Laboratory ID: | 05-014-06 | | | | | |
| Diesel Range Organics | **ND** | 31 | NWTPH-Dx | 5-7-12 | 5-7-12 | |
| Lube Oil | **580** | 62 | NWTPH-Dx | 5-7-12 | 5-7-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *93* | *50-150* | | | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

**NWTPH-Dx**
**QUALITY CONTROL**
**(with acid/silica gel clean-up)**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| METHOD BLANK | | | | | | |
| Laboratory ID: | MB0507S1 | | | | | |
| Diesel Range Organics | **ND** | 25 | NWTPH-Dx | 5-7-12 | 5-7-12 | |
| Lube Oil Range Organics | **ND** | 50 | NWTPH-Dx | 5-7-12 | 5-7-12 | |
| *Surrogate:* | *Percent Recovery* | *Control Limits* | | | | |
| *o-Terphenyl* | *121* | *50-150* | | | | |

| Analyte | Result | | Percent Recovery | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|
| DUPLICATE | | | | | | | |
| Laboratory ID: | 04-181-02 | | | | | | |
| | ORIG | DUP | | | | | |
| Diesel Range Organics | **77.6** | **79.4** | | | 2 | NA | |
| Lube Oil | **440** | **343** | | | 25 | NA | |
| *Surrogate:* | | | | | | | |
| *o-Terphenyl* | | | *99* | *95* | *50-150* | | |

Date of Report: May 8, 2012
Samples Submitted: May 2, 2012
Laboratory Reference: 1205-014
Project: 143-005

## % MOISTURE

Date Analyzed: 5-2-12

| Client ID | Lab ID | % Moisture |
|---|---|---|
| KP1-050112-8-10 | 05-014-01 | 13 |
| KP2-050112-0.75-4 | 05-014-03 | 28 |
| KP3-050112-8-4-5 | 05-014-06 | 19 |
| KP4-050112-4.5-8 | 05-014-09 | 30 |

OnSite Environmental Inc.

**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-napthalene) 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.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

# Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 1 of 1

Laboratory Number: 05-0114

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ (other)

Company: [illegible]
Project Number: [illegible]
Project Name: [illegible]
Project Manager: [illegible]
Sampled by: April Wolfenden

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | No. of Cont. | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Dx | NWTPH-Dx | Volatiles 8260B | Halogenated Volatiles 8260B | Semivolatiles 8270D SIM (Carcinogenic PAHs) | PAHs 8270D SIM (Full List) | PCB 8082 | Pesticides 8081A Pesticides 8270D SIM | Organochlorine Pesticides 8081A | Organophosphorus Pesticides 8270D SIM | Chlorinated Acid Herbicides 8151A | TCLP Metals | TCLP Mercury | RCRA Metals | TCLP Volatiles | TCLP Semivolatiles | HOLD | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | [illegible] | 5-1-12 | [illegible] | Soil | 5 | X | | | | | X | | | | | | | | | | | | | | X |
| 2 | [illegible] | | [illegible] | H2O | 7 | X | | | | | X | | | | | | | | | | | | | | |
| 3 | [illegible] | | [illegible] | Soil | 5 | X | | | | | X | | | | | | | | | | | | | | X |
| 4 | [illegible] | | [illegible] | Soil | 5 | | | | | | | | | | | | | | | | | | | X | |
| 5 | [illegible] | | [illegible] | H2O | 7 | X | | | | | X | | | | | | | | | | | | | | |
| 6 | [illegible] | | [illegible] | Soil | 5 | | | X | | | X | | | | | | | | | | | | | | X |
| 7 | [illegible] | | [illegible] | Soil | 5 | | | | | | | | | | | | | | | | | | | X | |
| 8 | [illegible] | | [illegible] | H2O | 7 | X | | | | | X | | | | | | | | | | | | | | |
| 9 | [illegible] | | [illegible] | Soil | 5 | X | | | | | X | | | | | | | | | | | | | | X |
| 10 | [illegible] | ↓ | [illegible] | H2O | 7 | X | | | | | X | | | | | | | | | | | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | [signature] | Pacific West | 5/2/12 | 8:15 |
| Received | [signature] | Spdy | 5/2/12 | 8:15 |
| Relinquished | [signature] | Spdy | 5/2/12 | 11:35 |
| Received | [signature] | OSE | 5/2/12 | 1135 |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Received/Date | | |

Comments/Special Instructions

Hold following for NWTPH-Gx/BTEX and NWTPH-Dx if detected.

⊗ Added 5/4/12. JMS (GM)

Chromatograms with final report

QA/QC Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐