

Final

**2013 Supplemental Environmental Site
Assessment Report
Pet Health Clinic
Sunnyside, Washington**

Prepared for:
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Approval Form

This document contains geologic work and is therefore submitted under the seal of an appropriately licensed professional, as required by Chapters 18.43 and 18.220 Revised Code of Washington (RCW).

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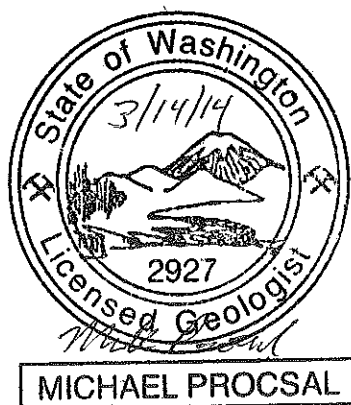


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Acronyms and Abbreviations

bgs	below ground surface
BTEXN	benzene, toluene, ethylbenzene, total xylenes, and naphthalene
Ecology	Washington State Department of Ecology
EDB	ethylene dibromide
EDC	1,2-dichloroethane
ETBE	Ethyl tertiary-butyl ether
famsl	feet above mean sea level
LCS	laboratory control sample
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
MTBE	methyl tert-butyl ether
MTCA	Model Toxics Control Act
PID	photo-ionization detector
ppm	parts per million
QA/QC	quality assurance/quality control
RPD	relative percent difference
SAP/QAPP	Sampling and Analysis Plan/Quality Assurance Project Plan
TAME	Tertiary-amyl methyl ether
TBA	Tertiary-butyl alcohol
TEA	terminal electron acceptor
TerraGraphics	TerraGraphics Environmental Engineering, Inc.
TPH-Dx	Total Petroleum Hydrocarbons-Diesel and Oil Range Organics
TPH-Gx	Total Petroleum Hydrocarbons-Gasoline Range Organics
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

Executive Summary

TerraGraphics Environmental Engineering, Inc. (TerraGraphics) teamed with Hart Crowser, Inc. (under contract with the Washington State Department of Ecology [Ecology]) to identify potential soil and/or groundwater contamination at the Pet Health Clinic, located in Sunnyside, Washington (Figure 1). Soil and groundwater sample results were compared to Washington's Model Toxics Control Act (MTCA) (Washington Administrative Code [WAC] 173-340) Method A unrestricted cleanup levels (Tables 740-1 and 720-1, WAC 173-340-900). The objective of this assessment was to delineate the full lateral and vertical extent of petroleum contamination at the subject property through soil sampling and groundwater monitoring events (which may result in future vapor sampling activities during the next groundwater sampling event) in order to guide remediation efforts. This document summarizes field activities and analytical data collected, and provides recommendations.

Soil Quality

Direct Push Sampling: Soil borings were advanced at eleven locations (BH-7 through BH-17, Figure 2) on November 11 and 12, 2013. A total of nine soil samples (including one duplicate sample) were collected from the soil borings based on field screening results using a portable MiniRae photo-ionization detector (PID). Samples were not collected from borings BH-15, BH-16, or BH-17 due to the lack of any evidence of petroleum impacts at those locations. Samples were collected from the zone with the highest PID reading. The analytical results indicate that two samples (including a duplicate sample) were above one or more of the MTCA Method A Unrestricted Soil Cleanup Levels. Detected concentrations (expressed in milligrams per kilogram [mg/kg]) are summarized in Table 1 and the sample above the cleanup level is listed below:

	ethylbenzene	total xylenes	naphthalene	gasoline range organics
BH-14 6' (mg/kg)	2.3	89.9	8.7	1,600
Cleanup Level (mg/kg)	6	9	5	30

Note: (the higher concentration of the original and duplicate is listed)

Groundwater

Two groundwater monitoring wells (MW-4 and MW-5) were installed as part of this assessment on November 12, 2013. A total of five water samples were collected from the monitoring wells (three from the preexisting MW-1, MW-2, and MW-3 wells; two from the newly installed MW-4 and MW-5 wells) on November 13, 2013. Two additional samples (including one duplicate) were collected on November 14, 2013 from a drinking water well located on the adjacent property to the north. Analytes detected in two of the seven water samples (including the duplicate) were above the respective Method A Cleanup Levels. Detected concentrations

(expressed in micrograms per liter [$\mu\text{g/L}$]) are summarized in Table 2 and those samples above the cleanup levels are listed below:

	benzene	1,2-dichloroethane	gasoline range organics	heavy oil
MW-2 ($\mu\text{g/L}$)	70	NA	2,400	2,510
MW-3 ($\mu\text{g/L}$)	230	49	16,000	16,000
Cleanup Level ($\mu\text{g/L}$)	5	5	800	2,000

Notes:

- 1) MW-2 did not exceed the 1,2-dichloroethane cleanup level
- 2) Heavy oil concentration is the sum of the diesel range organics and motor oil

Vapor Intrusion

One or more petroleum constituents at wells MW-2, MW-3, and MW-4 exceed the MTCA Method B Table B-1 Unrestricted Groundwater Screening Levels for Vapor Intrusion, indicating that groundwater is a potential source for vapor intrusion.

Summary and Recommendations

This investigation confirmed that petroleum-impacted soil and groundwater are present at the site. The greatest soil and groundwater impacts appear to be near the former underground storage tanks (USTs) west of the Pet Health Clinic building. Groundwater flow varies in direction from the northwest, northeast, and southeast at a calculated average gradient of 0.013 ft/ft toward the northeast. This flow direction conflicts with historical data which suggested a gradient toward the southeast.

Based on the available information and site-specific data collected, TerraGraphics concludes the following:

- Soil and groundwater petroleum hydrocarbons exceed MTCA A Cleanup Levels.
- The presence of diesel range organics, 1,2-dichloroethane, and gasoline range organics indicate that a release likely occurred from both the former heating oil UST and the former gasoline UST. Although diesel results may be biased high because of gasoline interferences.
- Petroleum impacted soils on the site are estimated at 2,400 cubic yards. This calculation is based on the estimated extent of soil exceeding the MTCA A Cleanup Level for Gasoline Range Organics or benzene and a depth range from 0 to 15 feet bgs.
- Petroleum impacted soil and groundwater are likely present under the Pet Health building to the east of the form tanks..

Based on the available information and site-specific data collected, TerraGraphics recommends the following:

- Perform a Tier 1 Vapor Assessment by conducting outdoor ambient, indoor ambient, and sub-slab vapor sampling to estimate the strength of the potential vapor intrusion source.
- Implement a remediation strategy following additional vapor sampling activities.
- Continue groundwater monitoring program.

Section 1.0 Introduction

The Pet Health Clinic property (hereinafter, referred to as the site) is located at 2210 East Edison Avenue, Sunnyside, Washington (Figure 1). The site currently operates as a veterinary clinic and has one main building, asphalt covered parking on the east, gravel covered parking on the west, and grass/landscaping covering the other areas of the property (Figure 2).

TerraGraphics Environmental Engineering, Inc. (TerraGraphics) teamed with Hart Crowser, Inc. (under contract with the Washington State Department of Ecology [Ecology]) to identify potential soil and/or groundwater contamination at the site.

1.1 Notable Site Features

The Pet Health Clinic building and adjacent home (Querin residence) were constructed at the same time prior to 1960. The drinking water well historically serviced both the Pet Health Clinic building and the Querin home. In 1960 or sometime thereafter, the property was subdivided and while the Pet Health Clinic building received a new water connection to the city service, the Querin residence and irrigation remained connected to the drinking water well. In addition a septic drain field is located in front of the clinic building (Figure 2). Utilities including water, communications, and natural gas trend parallel to Edison Avenue along the southern edge of the property boundary.

1.2 Site History

Two underground storage tanks (USTs) were used historically to fuel company vehicles and to supply heating oil for the clinic building. In 1992, a 500-gallon gasoline UST was removed and petroleum odors were observed in surrounding soils. A 500-gallon heating oil tank located just west of the clinic building was removed in 1994. A subsequent investigation of the subsurface soils indicated concentrations of gasoline- and diesel-range petroleum hydrocarbons above Model Toxics Control Act (MTCA) Method A Unrestricted Cleanup Levels (Table 740-1), along with visual evidence of tank failure. Groundwater was not sampled during tank removal activities, but was present at depths of approximately 5 feet to 7 feet below ground surface (bgs).

1.3 Previous Assessment Activities

TerraGraphics completed an environmental assessment at the site in December 2011 (TerraGraphics 2011). Site investigation activities confirmed that soil concentrations exceeded MTCA Method A cleanup levels. The full lateral extent of petroleum-impacted soil likely extended beyond the assessment boundaries.

During the 2011 assessment, soil borings were advanced at six locations (BH-1 through BH-6) on December 8 and 9, 2011. A total of six soil samples were collected from the soil borings based on field screening results using a portable MiniRae® photo-ionization detector (PID). Samples were collected from the zone with the highest PID reading. The analytical results indicate that four of the six samples contained petroleum hydrocarbons at concentrations above one or more of the MTCA Method A Unrestricted Soil Cleanup Levels. It should be noted that

the diesel range organics result is due primarily to a mixture of gasoline range product and weathered diesel fuel as indicated by the analytical laboratory. Detected concentrations (expressed in milligrams per kilogram [mg/kg]) above the cleanup levels are listed below:

- BH-2 5 ft
 - benzene = 1.0 mg/kg, Cleanup Level = 0.03 mg/kg.
 - total xylenes = 13.8 mg/kg, Cleanup Level = 9 mg/kg.
 - gasoline range organics = 130 mg/kg, Cleanup Level = 30 mg/kg.
- BH-3 6 ft
 - benzene = 4.9 mg/kg, Cleanup Level = 0.03 mg/kg.
 - toluene = 60 mg/kg, Cleanup Level = 7 mg/kg.
 - ethylbenzene = 28 mg/kg, Cleanup Level = 6 mg/kg.
 - total xylenes = 164 mg/kg, Cleanup Level = 9 mg/kg.
 - naphthalene = 6.4 mg/kg, Cleanup Level = 5 mg/kg.
 - gasoline range organics = 2,200 mg/kg, Cleanup Level = 30 mg/kg.
 - diesel range organics = 2,200 mg/kg, Cleanup Level = 2,000 mg/kg.
- BH-4 11 ft
 - benzene = 0.06 mg/kg, Cleanup Level = 0.03 mg/kg.
- BH-5 6 ft
 - benzene = 0.067 mg/kg, Cleanup Level = 0.03 mg/kg.

Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed on December 8 and 9, 2011. A total of four water samples, including one duplicate, were collected from the monitoring wells on December 15, 2011. Analytes detected in two of the three water samples were above the respective Method A Cleanup Levels. It should be noted that the diesel and oil range organics results were due primarily to a mixture of gasoline range product and weathered diesel fuel as indicated by the analytical laboratory. Detected concentrations (expressed in micrograms per liter [µg/L]) above the screening levels are listed below:

- MW-2
 - benzene = 120 µg/L, Cleanup Level = 5 µg/L.
 - total xylenes = 1,360 µg/L, Cleanup Level = 1,000 µg/L.
 - gasoline range organics = 7,800 µg/L, Cleanup Level = 800 µg/L.
 - diesel range organics = 2,100 µg/L, Cleanup Level = 500 µg/L.
- MW-3
 - benzene = 1,700 µg/L, Cleanup Level = 5 µg/L.
 - total xylenes = 1,740 µg/L, Cleanup Level = 1,000 µg/L.
 - 1,2-dichloroethane = 130 µg/L, Cleanup Level = 5 µg/L.
 - gasoline range organics = 11,000 µg/L, Cleanup Level = 800 µg/L.
 - diesel range organics = 21,000 µg/L, Cleanup Level = 500 µg/L.
 - motor oil = 3,000 µg/L, Cleanup Level = 500 µg/L.

The 2011 investigation confirmed that petroleum-impacted soil and groundwater are present at the site. The greatest soil and groundwater impacts appeared to be near the former USTs west of the Pet Health Clinic building. Groundwater flow was calculated in 2011 toward the southeast at a gradient of 0.008 ft/ft which indicated the potential for migration to the southeast under the Pet Health Clinic building and toward East Edison Avenue.

Based on the available information and site-specific data collected in 2011, TerraGraphics concluded the following:

- Soil and groundwater petroleum hydrocarbons exceeded MTCA A Cleanup Levels.
- The extent of petroleum impacted soil and groundwater had not been fully characterized to the south and to the southeast of the former USTs.
- The presence of diesel range organics, 1,2-dichloroethane, and gasoline range organics indicated that a release likely occurred from both the former heating oil UST and the former gasoline UST. Although diesel results may be biased high because of gasoline interferences.

Based on the available information and site-specific data collected in 2011, TerraGraphics recommended the following:

- Evaluate potential downgradient migration to the south and southeast of the site through additional borings, soil samples, monitoring wells, and groundwater sampling.
- Sample the drinking water well from the adjacent property to the north (Querin residence) to investigate petroleum impacts to this extent.
- Utilize a multiparameter flow cell to more accurately characterize the groundwater field parameters.
- Use information obtained during additional characterization to determine most suitable remediation approach.
- Implement a remediation strategy following the remedial alternatives evaluation.

1.4 2013 Site Assessment Activities

In August 2013, Ecology requested additional site assessment and cleanup support. Ecology contracted Hart Crowser, Inc. and TerraGraphics to perform additional site assessment and characterization activities. The objective of this supplemental assessment is to provide additional assessment to delineate the full extent of petroleum contamination at the Site to support selection and design of remedial actions. The results from the 2013 supplemental site assessment activities are presented in the Supplemental Environmental Site Assessment Report herein.

Section 2.0 Field Activities

In general, sampling procedures followed the Sampling and Analysis Plan (SAP) for Site Assessment at the Pet Health Clinic, Sunnyside, Washington (TerraGraphics 2011) except for the following change:

- Two groundwater monitoring wells were installed instead of three. Only two additional wells were needed since a network of 5 wells sufficiently bounded the observed groundwater plume. In addition, the presence of the drain field prevented monitoring well MW-4 from being placed any further south near the property boundary

2.1 Soil Sampling

A total of eleven borings were completed on November 11 and 12, 2013 (BH-7 through BH-17). Samples were not collected from borings BH-15, BH-16, or BH-17 due to the lack of any evidence of petroleum impacts at those locations. See Figure 2 for the soil boring locations. Photographs were taken during the soil boring process, and are included as Appendix A. Borings were advanced using a track-mounted AMS PowerProbe™ utilizing a single tube Geoprobe® 2-inch diameter 5-foot length macro-core barrel driven in 5-foot increments (e.g., 0-5 feet, 5-10 feet, 10-15 feet, etc.) to the target depth of the borehole. A new Geoprobe® macro-core liner was used to collect each sample interval. All soil samples were screened in the field using a portable MiniRae® PID to check for the presence of volatile organic compounds.

A total of nine soil samples (including one duplicate sample) were collected based on the highest PID reading and sent to Test America Labs in Seattle, Washington. The samples were analyzed for the following:

- Benzene, toluene, ethylbenzene, total xylenes, and naphthalene (BTEXN) by US Environmental Protection Agency (USEPA) Method 8260B (USEPA 1992);
- Methyl tert-butyl ether (MTBE) using USEPA Method 8260B (USEPA 1992);
- Tertiary-butyl alcohol (TBA) by USEPA Method 8260B (USEPA 1992);
- Tertiary-amyl methyl ether (TAME) by USEPA Method 8260B (USEPA 1992);
- Ethyl tertiary-butyl ether (ETBE) by USEPA Method 8260B (USEPA 1992);
- Ethylene dibromide (EDB) by USEPA Method 8260B (USEPA 1992);
- 1,2-dichloroethane (EDC) using USEPA Method 8260B (USEPA 1996);
- Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-Gx) using Ecology's Analytical Methods for Petroleum Hydrocarbons (Ecology 1997);
- Total Petroleum Hydrocarbons-Diesel and Oil Range Organics (TPH-Dx) using Ecology's Analytical Methods for Petroleum Hydrocarbons (Ecology 1997); and
- Total recoverable lead using USEPA Method 200.8/6020 (USEPA 1994).

Complete laboratory data sheets and chain-of-custody documentation are included as Appendix B.

2.2 Groundwater Sampling

Two groundwater monitoring wells were installed on November 12, 2013 (MW-4 and MW-5) (see Figure 2, and boring logs in Appendix C). The top of casing of each groundwater monitoring well was surveyed by a Washington licensed surveyor, Gray Surveying and Engineering Inc., in NAVD88 datum in the State Plane Projection, converted and expressed as elevation in feet above mean level (famsl). Wells were constructed of 2-inch schedule 40 poly-vinyl chloride pre-pack assemblies. The screened interval was placed to ensure that the maximum water table fluctuations are fully captured by the screen while still maintaining a sufficient well seal. Screen intervals were placed from 6 to 11 feet bgs and are noted on the boring logs. Wells were developed using over-purge methods until groundwater quality stabilized (ph, conductivity, temperature, dissolved oxygen, and oxidation/reduction potential). Groundwater samples were collected using a low-flow peristaltic pump. New peristaltic tubing was used to collect water from each groundwater monitoring well.

Prior to collecting samples from the drinking well, water was purged to the grass for approximately 30 minutes using water pressure from the faucet instead of a peristaltic pump. New tubing was placed several feet down the spigot pipe. The outside diameter of the new tubing fit tightly into the inside diameter of the spigot pipe and sealed off the water allowing it to pass only through the interior tubing.. When water parameters were stable, the samples were collected.

A total of five water samples were collected from the monitoring wells (three from the preexisting MW-1, MW-2, and MW-3 wells; two from the newly installed MW-4 and MW-5 wells) on November 13, 2013. Two additional drinking water samples were collected (including one duplicate) on November 14, 2013. All seven samples were labeled and placed in a cooler on ice for transportation to Test America along with the chain-of-custody documentation.

The samples were analyzed for the following:

- BTEXN by (USEPA) Method 8260B (USEPA 1992);
- MTBE using USEPA Method 8260B (USEPA 1992);
- TBA by USEPA Method 8260B (USEPA 1992);
- TAME by USEPA Method 8260B (USEPA 1992);
- ETBE by USEPA Method 8260B (USEPA 1992);
- EDB by USEPA Method 8260B (USEPA 1992);
- EDC using USEPA Method 8260B (USEPA 1996);
- TPH-Gx using Ecology's Analytical Methods for Petroleum Hydrocarbons (Ecology 1997);
- TPH-Dx using Ecology's Analytical Methods for Petroleum Hydrocarbons (Ecology 1997); and
- Total recoverable lead using USEPA Method 200.8/6020 (USEPA 1994);
- Natural attenuation parameters (including nitrates, manganese, sulfate, ferrous iron and alkalinity) using USEPA Methods 300.0/9056 (USEPA 2007a), 200.7/6010 (USEPA 2007b), 200.8/6020 (USEPA 1994), and 310.1/2320B (USEPA 1978);
- Total Suspended Solids using Standard Method 2540D (1997)

Complete laboratory data sheets and chain-of-custody documentation are included as Appendix B.

Section 3.0 Results

The data quality objectives as set forth in the Sampling and Analysis Plan (SAP) (TerraGraphics, 2011) have been achieved. As a result, no data were reduced and the final completeness of the study was assessed at 100%. The following sections summarize the soil and groundwater analytical results.

3.1 Soil Sample Analysis

Petroleum hydrocarbon concentrations in two (including one duplicate) of the nine soil samples collected were above one or more of the Method A Unrestricted Cleanup Levels. Detected concentrations (expressed in mg/kg) are summarized in Table 1, and those above the cleanup levels are summarized below:

	ethylbenzene	total xylenes	naphthalene	gasoline range organics
BH-14 6' (mg/kg)	2.3	89.9	8.7	1,600
Cleanup Level (mg/kg)	6	9	5	30

Note: the higher concentration of the original and duplicate is listed

Although many constituents were not detected, a few constituents (benzene, EDC, and EDB) had detection limits that exceeded their respective cleanup levels as indicated in Table 1. However, these sample locations (BH-14) had other constituents that were detected well above their respective cleanup levels.

In addition to these analytical results other boring locations that exhibited petroleum impacts (primarily gasoline) are indicated by PID readings and staining noted in the borings logs.

3.1.1 Estimated Volume of Petroleum Impacted Soil

Petroleum impacted soil appears to be greatest to the north of the Pet Health Clinic building in close proximity to the former USTs, as indicated by the analytical results from soil boring BH-14. Previous assessment also showed significant petroleum impacted soil at BH-3, located southwest of the former USTs. The vertical extent of impacted soil extends from approximately 1 feet bgs to 10 feet bgs with the highest concentration of contaminants observed at the groundwater interface (approximately 6 feet bgs). At two boring locations (BH-2 and BH-3) petroleum impacts extended to 15 feet bgs.

The lateral extent of petroleum impacted soil has been bounded to the north, east, west and south. Along the southeastern edges it appears to extend beneath the Pet Health Clinic Building.

Figure 3 shows a map of benzene and gasoline range organics soil concentrations expressed in mg/kg that provide a display of the lateral extent of petroleum impacted soils that exceed their respective cleanup levels.

Using a conservative approach, an estimate of the petroleum impacted soil was calculated using a depth range of 1 to 15 feet bgs and a lateral extent as interpreted from either the gasoline range organics or benzene concentrations that exceed their respective cleanup levels. Petroleum impacted soil volumes are estimated at 2,400 cubic yards including overburden (un-impacted soil from 0 to 1 feet bgs).

3.2 Groundwater Sample Analysis

Water quality field parameter data were collected during the groundwater purging process prior to sample collection. Field parameters include temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential. These parameters provide information on the water chemistry and are used as stabilization criteria. The stabilization criteria were used to indicate that the well has been sufficiently purged and that the extracted groundwater is representative of the groundwater from the aquifer. Appendix D Table 4 lists the field parameter data.

A total of five water samples were collected from the monitoring wells (three from the preexisting MW-1, MW-2, and MW-3 wells; two from the newly installed MW-4 and MW-5 wells) on November 13, 2013. Two additional drinking water samples were collected (including one duplicate) on November 14, 2013. Analytes detected in two of the seven water samples (including the duplicate) were above their respective Method A Cleanup Levels. Detected concentrations are summarized in Table 2 and those above the screening levels are listed below:

	benzene	1,2-dichloroethane	gasoline range organics	Heavy oil
MW-2 (µg/L)	70	NA	2,400	2,510
MW-3 (µg/L)	230	49	16,000	16,000
Cleanup Level (µg/L)	5	5	800	2,000

Notes:

- 1) MW-2 did not exceed the 1,2-dichloroethane cleanup level
- 2) Heavy oil concentration is the sum of the diesel range organics and motor oil

Petroleum impacted groundwater appears to be greatest west of the Pet Health Clinic building in close proximity to the former USTs, as indicated by the analytical results from groundwater monitoring wells MW-2 and MW-3 (Figure 4). In addition, during sampling these wells exhibited petroleum impacts (primarily gasoline) including a slight sheen and odor (see Appendix D). The presence of diesel range organics, EDC (likely the result of a lead scavenger additive that was used up until the late 1980's), and gasoline range organics indicate that a release likely occurred

from both the former heating oil UST and the former gasoline UST. Although diesel results may be biased high because of gasoline interferences. Petroleum hydrocarbons were not detected in significant amounts at wells MW-1, MW-4 or MW-5. Elevated petroleum constituents are present at monitoring well MW-3 and based upon the groundwater elevations (discussed in Section 3.4) this appears to be an upgradient well. However, 2011 sampling results show that MW-3 is a downgradient well. MW-3 is also in close proximity to BH-3 (the soil boring with the highest gasoline detection and may indicate that the impacted soils extend soil towards MW-3. Future groundwater sampling will help define the potential temporal and spatial trends in order to clarify this discrepancy.

3.3 Vapor Intrusion

Groundwater results from the 2011 and 2013 assessments were compared to MTCA Method B Unrestricted (residential) Table B-1 Groundwater Screening Levels. One or more petroleum constituents at wells MW-2, MW-3, and MW-4 exceed the screening levels (Table 2) indicating the potential for groundwater to be a vapor intrusion source and could lead to unacceptable indoor air levels.

3.4 Geology and Hydrogeology

In general, the site lithology consists of silts and silty sands from 0 feet to 15 feet bgs with occasional clay layers (1-2 feet thick) from 7 to 15 feet bgs. Groundwater was encountered at the site at approximately 6 feet bgs. More detailed information of the subsurface conditions can be found in the boring logs included as Appendix C.

Depth to water was measured in each groundwater monitoring well prior to groundwater sampling activities. Groundwater elevations were calculated by subtracting the depth to water measurement from the top of casing elevation (expressed in famsl). Groundwater elevations ranged from 744.61 famsl at MW-4 to 746.36 famsl at MW-3 (Table 2). Groundwater flow varies in direction from the northwest, northeast, and southeast at a calculated average gradient of 0.013 ft/ft toward the northeast (Figure 5). This flow direction conflicts with historical data which suggested a gradient toward the southeast. Groundwater elevations are highest at MW-3 and appear to flow away from MW-3 toward all other monitoring points. This apparent mounding at MW-3 is an uncommon feature in unconfined shallow groundwater systems and suggests the possibility that the variability is due to seasonal irrigation or from other water sources (e.g. leaking from buried water line). A temporal distribution will be established through future groundwater monitoring activities and will help to quantify this potential seasonal variability and the dominant flow directions.

3.5 Natural Attenuation Analysis

The effectiveness of natural attenuation as an acceptable remedial measure is based upon decreasing contaminant concentrations in groundwater together with a stable or receding contaminant plume. Additional supporting geochemical data trends can also be indicative of biodegradative processes in groundwater. General geochemical and water quality parameters were collected and results are located in Tables 3 and 4 respectively.

The geochemical parameters selected for monitoring are based upon the sequential use of terminal electron acceptors (TEAs) as microorganisms consume petroleum contaminants in the plume. TEAs and the sequence of use are:

Dissolved oxygen (DO) > nitrate (NO_3^-) > manganese (Mn^{+4}) > ferric
iron (Fe^{+3}) > sulfate (SO_4^{-2}) > carbon

The use of a specific TEA is closely related to the oxidation-reduction potential (ORP) of the groundwater. The more reducing the groundwater conditions, the greater the depletion of the available electron acceptors. Monitoring wells MW-2, MW-3, and MW-4 have negative ORPs and there for are under reducing conditions.

Natural attenuation parameters collected during this sampling event serve as a baseline measurement to which future measurements will be compared to. Once multiple data sets are available through ongoing groundwater monitoring, temporal and spatial relationships can be established to assist in evaluating natural attenuation of remaining hydrocarbons.

3.6 Data Evaluation

Data quality objectives and criteria were outlined in Section 4.0 of the SAP/QAPP (TerraGraphics 2013). TerraGraphics reviewed field documentation, results of field and laboratory quality assurance/quality control (QA/QC) samples, and data reported by the laboratory to ensure that the data had been recorded, transmitted, and processed correctly, and to determine that data quality objectives were met.

3.6.1 Sample Preservation & Holding Time

For groundwater, sample holding times were exceeded for nitrate (samples MW-1, MW-2, MW-3, MW-4, and MW-5), and benzene, ethylbenzene, total xylenes, naphthalene, toluene, and EDC (sample MW-3). For soil, sample holding times were exceeded for volatile organic compounds (VOCs) (samples BH-7-8', BH-8-6', BH-9-5', BH-10-6', BH-11-5', BH-12-6', BH-13-6', BH-14-6', and BH-14D-6'). These samples have been J qualified as estimates.

All sample holding times that exceed lab specifications have been qualified as estimates (with a J flag). Since the samples were delivered to lab beyond the 48 hour hold time the lab was not able to process the samples within the specified holding time. The sample results may be biased slightly low and are acceptable for use as qualified.

Preservation requirements were met for all samples. TerraGraphics delivered samples on ice to Test America Labs and sample receiving documentation indicates the cooler temperature upon delivery was 0.1°C for groundwater samples and 0.4°C for soil samples, which is within the temperature requirements specified in the SAP/QAPP (TerraGraphics 2013).

3.6.2 Data Tracking and Field Documentation

Collection dates and times for all samples were recorded in a field logbook. Samples submitted for laboratory analysis were recorded on a chain-of-custody form, which was completed and checked before samples were delivered to the lab.

3.6.3 Accuracy

Accuracy was assessed based on percent recoveries of laboratory control sample (LCS) analyses. The required frequency of LCS sample analysis was met. All LCS percent recoveries were within the acceptable range.

3.6.4 Precision

Precision was assessed based on relative percent difference (RPD) of a laboratory LSC duplicate. The required frequency of laboratory duplicates or LCS duplicates and RPD range were met. No data were qualified based on laboratory duplicate analysis.

A field duplicate was collected to examine variability in field procedures. One soil field duplicate was collected immediately after the original sample was collected at borehole BH-14-6'. The calculated RPDs for soil results where both results were above the reporting limit are as follows:

- ethylbenzene (56%) is above the SAP/QAPP requirement (<50%) and is J qualified as estimated;
- total xylenes (57%) is above the SAP/QAPP requirement (<50%) and is J qualified as estimated;
- naphthalene (42%) is below the SAP/QAPP requirement (<50%) and is not qualified;
- gasoline range organics (59%) is above the SAP/QAPP requirement (<50%) and is J qualified as estimated; and
- diesel range organics (98%) is above the SAP/QAPP requirement (<50%) and is J qualified as estimated.

One groundwater field duplicate was collected immediately after the original sample was collected at well DW. All results for the original groundwater sample and the field duplicate sample analyses were below the laboratory reporting limits and no qualifiers were placed on the groundwater data based on these results.

3.6.5 Data Comparability

Soil and groundwater samples were collected and analyzed using current accepted methods and procedures. All results are usable and are suitable for to comparison with past or future laboratory data collected at this site.

3.6.6 Data Completeness

The final completeness for the study is assessed at 100%. Based on a complete review of the field QA/QC sample results and the laboratory's QA/QC sample results, the dataset for the Pet Health Clinic site sampling is determined to be of usable quality.

The final completeness for the study is assessed at 100%.

Section 4.0 Summary

This investigation confirmed that petroleum-impacted soil and groundwater are present at the site. The greatest soil and groundwater impacts appear to be near the former underground storage tanks (USTs) west of the Pet Health Clinic building. The greatest soil impacts appear to be near the former USTs as indicated by the previous analytical results from borings BH-2 and BH-3 and the current analytical results from boring BH-14. The vertical extent of impacted soil is from 1-foot bgs to 10 feet bgs with the highest analyte concentrations at approximately 6 feet bgs. Near the former UST impacts are observed to 15 feet bgs. Groundwater is impacted to the extent of MW-2 and MW-3 in close proximity to the former USTs. Groundwater flow varies in direction from the northwest, northeast, and southeast at a calculated average gradient of 0.013 ft/ft toward the northeast. This flow direction conflicts with historical data which suggested a gradient toward the southeast.

One or more petroleum constituents at wells MW-2, MW-3, and MW-4 exceed MTCA Method B Table B-1 Unrestricted Groundwater Screening Levels for Vapor Intrusion indicating the potential for groundwater to be a vapor intrusion source and could lead to unacceptable indoor air levels.

Section 5.0 Conclusions and Recommendations

Based on the information obtained during these site assessment activities, remedial action is recommended at the site. Conclusions and recommendations are summarized in the following sections.

5.1 Conclusions

Based on the available information and site-specific data collected, TerraGraphics concludes the following:

- Soil and groundwater petroleum hydrocarbons exceed MTCA A Cleanup Levels.
- The presence of diesel range organics, 1,2-dichloroethane, and gasoline range organics indicate that a release likely occurred from both the former heating oil UST and the former gasoline UST. Although diesel results may be biased high because of gasoline interferences.
- Petroleum impacted soils on the site are estimated at 2,400 cubic yards. This calculation is based on the estimated extent of soil exceeding the MTCA A Cleanup Level for Gasoline Range Organics or benzene and a depth range from 0 to 15 feet bgs.
- Petroleum impacted soil and groundwater are likely present under the Pet Health building to the east of the former tanks.
- There is potential for a vapor intrusion risk based on groundwater concentrations.

5.2 Recommendations

Based on the available information and site-specific data collected, TerraGraphics recommends the following:

- Perform a Tier 1 Vapor Assessment by conducting outdoor ambient, indoor ambient, and sub-slab vapor sampling to estimate the strength of the potential vapor intrusion source.
- Implement a remediation strategy following additional vapor sampling activities
- Continue groundwater monitoring program.

Section 6.0 References and Resources Used

- Washington State Department of Ecology (Ecology), 1997. Analytical Methods for Petroleum Hydrocarbons. ECY 97-602, June 1997.
- Standard Methods (SM), 1997. Method 2540D: Standard Methods for the Examination of Water and Wastewater, Solids.
- TerraGraphics Environmental Engineering, Inc. (TerraGraphics), 2011 Sampling Analysis Plan for Site Assessment at Pet Health Clinic, Sunnyside, Washington. Prepared for State of Washington Department of Ecology. December 2, 2011.
- TerraGraphics Environmental Engineering, Inc. (TerraGraphics), 2013 Sampling Analysis Plan (SAP)/ Quality Assurance Project Plan (QAPP) for Site Assessment and Groundwater Monitoring at Pet Health Clinic, Sunnyside, Washington. Prepared for State of Washington Department of Ecology. November 4, 2013.
- U.S. Environmental Protection Agency (USEPA), 1994. Method 200.8: Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma – Mass Spectrometry, Revision 5.4.
- USEPA, 1996a. Method 8260B: Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2.
- USEPA, 2007a. Method 300.0/9056: Determination of Inorganic Anions by Ion Chromatography, February, Revision 1.
- USEPA, 2007b. Method 200.8/6010: Inductively Couple Plasma-Atomic Emission Spectrometry, February, Revision 3.
- Washington Administrative Code (WAC) 173-340-900. Title 173, Chapter 173-340: Model Toxics Control Act – cleanup, Tables. Last update: 10/12/07, accessed December 30, 2013, <http://apps.leg.wa.gov/wac/default.aspx?cite=173-340>.



Approximate Site Boundary



Image courtesy of Google Maps



Project No. 13073

Scale: not to scale

Requestor: M. Procsal

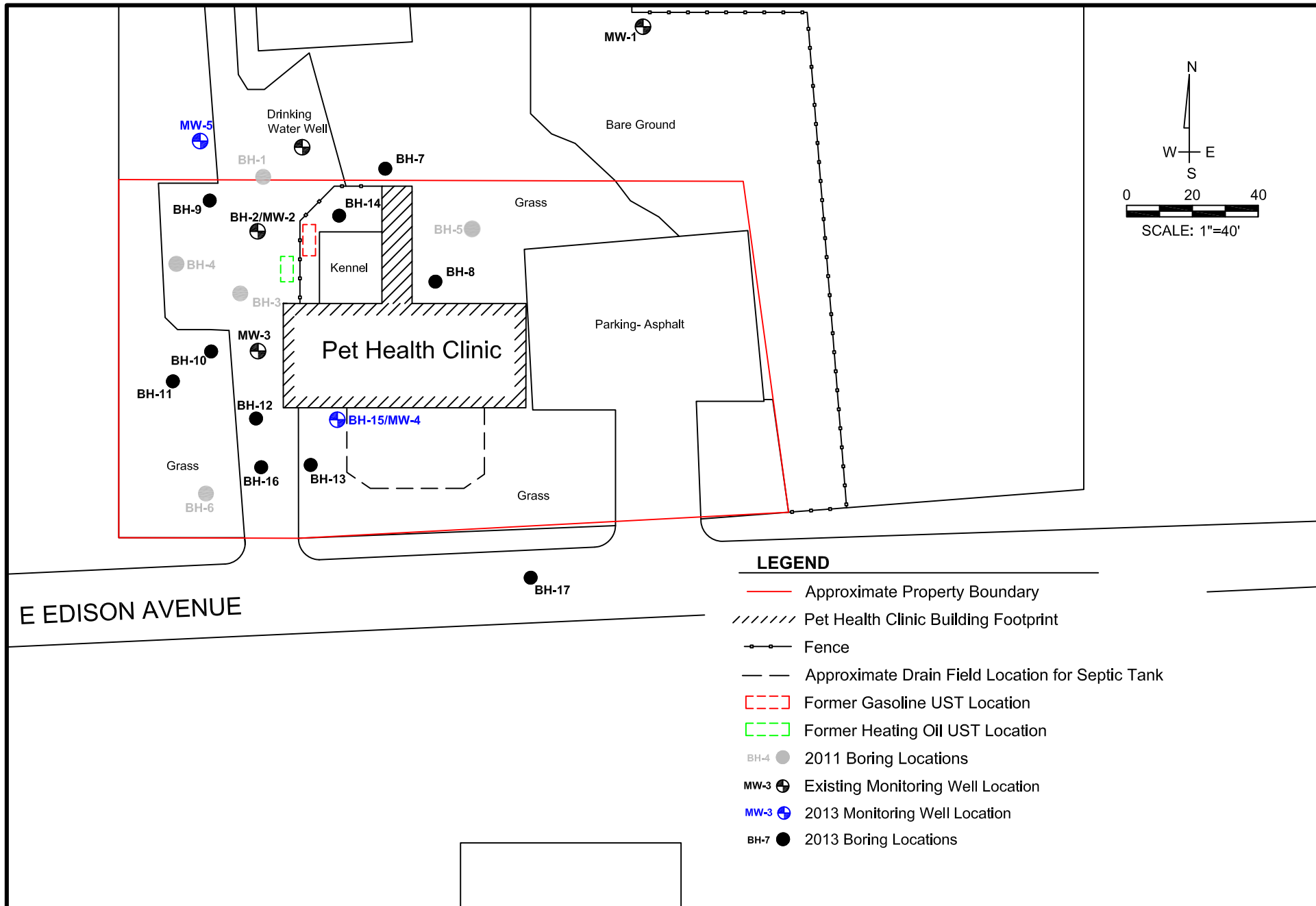
Drafter: M. Procsal



Pet Health Clinic
2210 East Edison Avenue
Sunnyside, Washington

Date: 10/04/2013

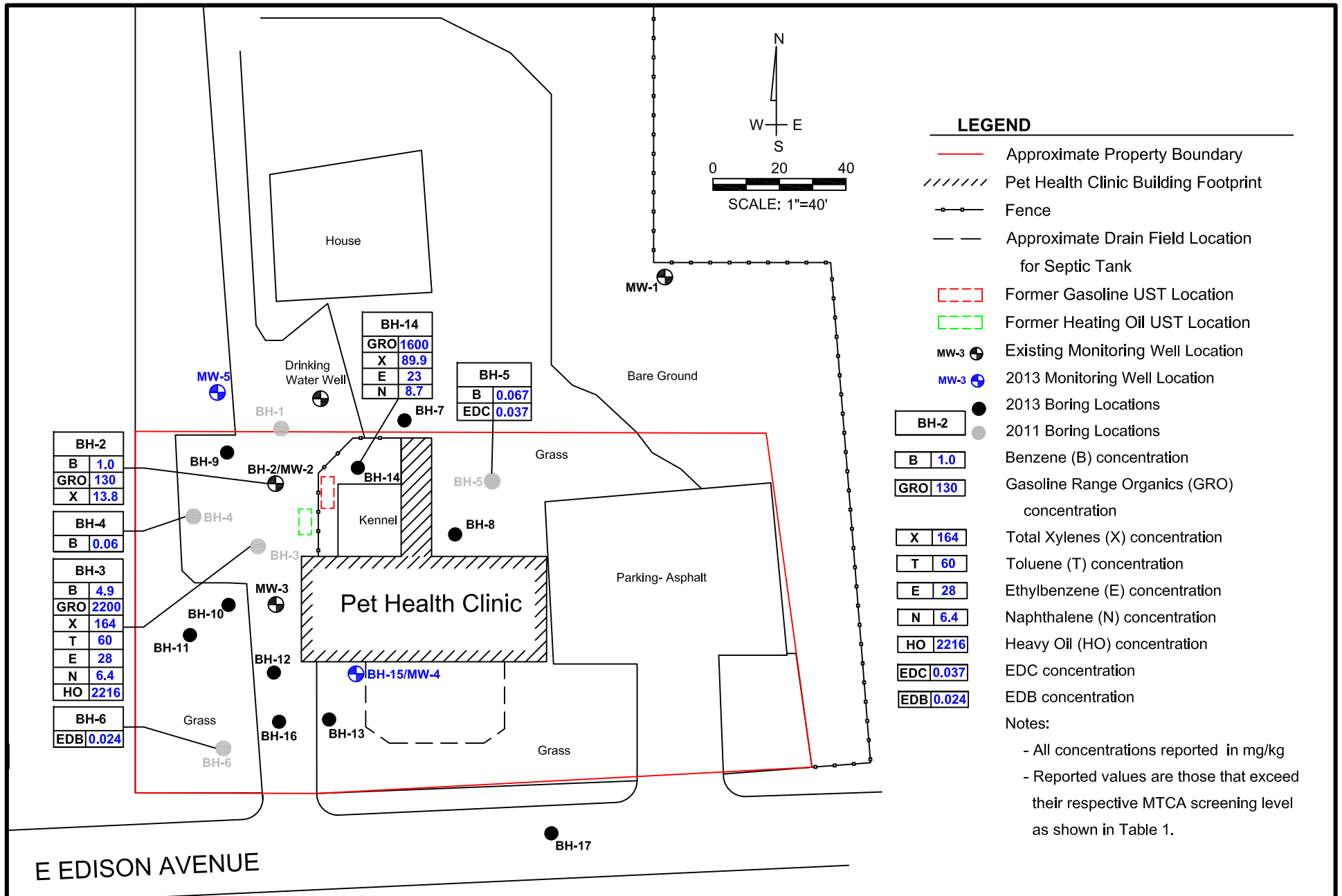
Figure 1. Site Location

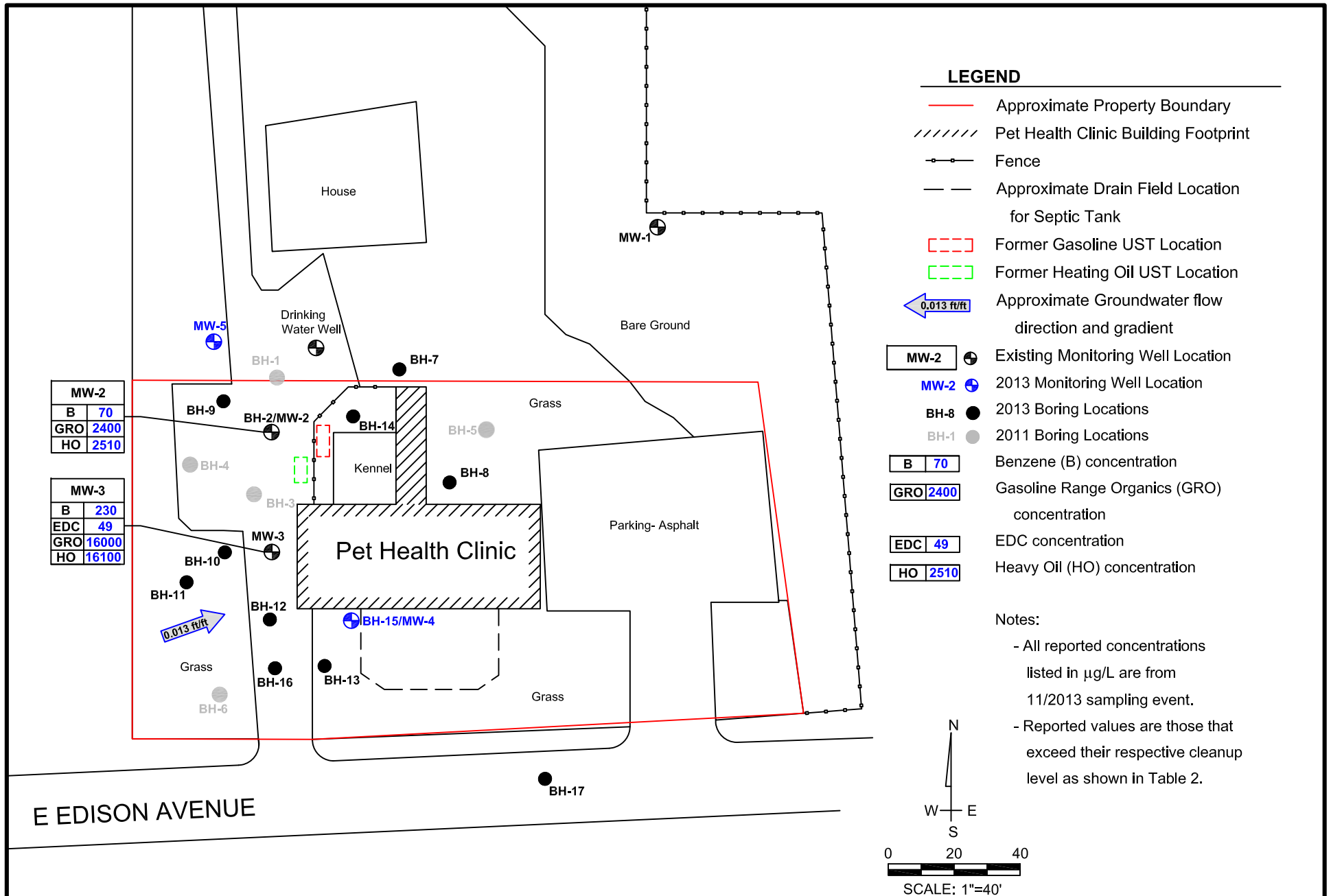


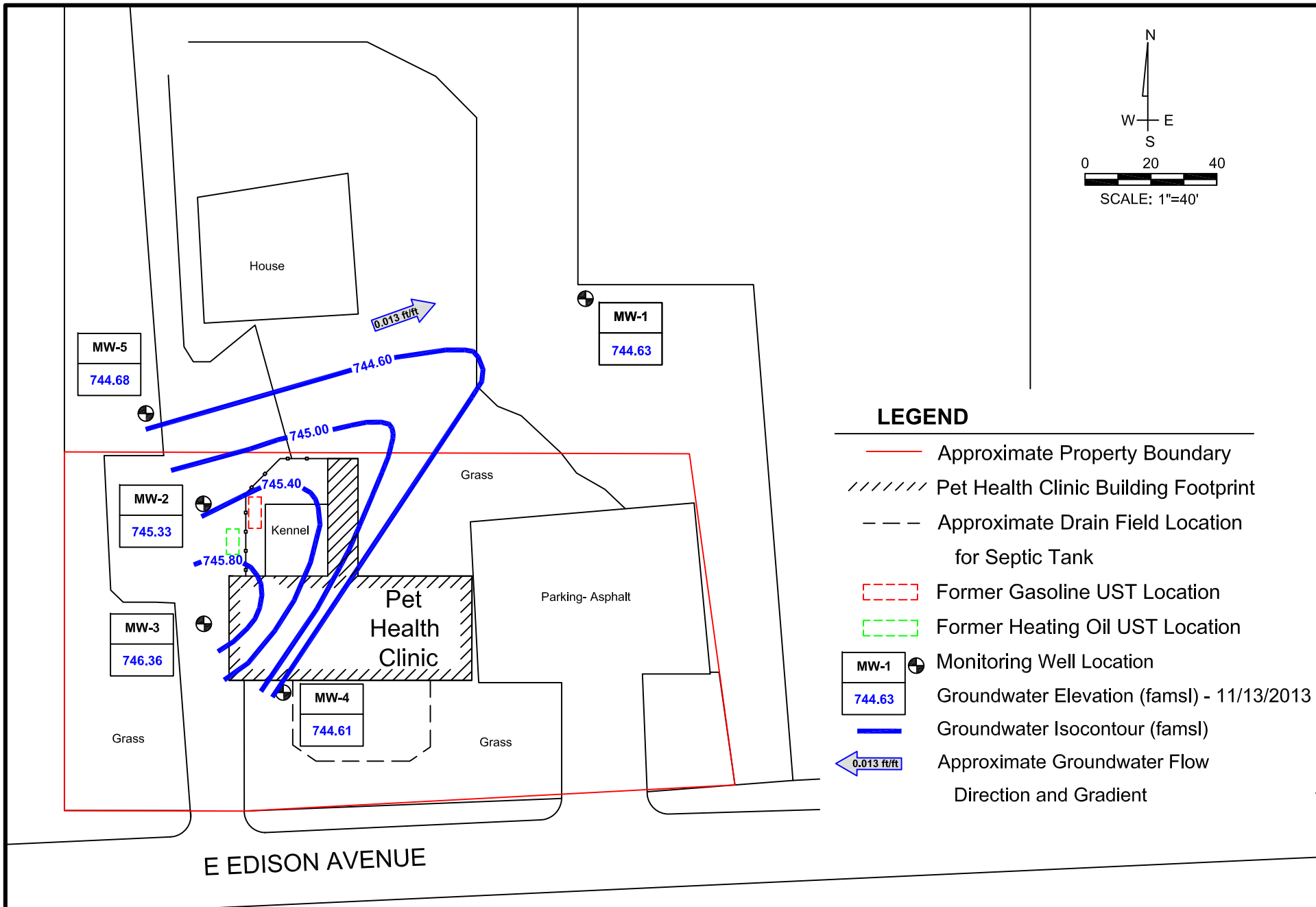
LEGEND

- Approximate Property Boundary
- //// Pet Health Clinic Building Footprint
- Fence
- Approximate Drain Field Location for Septic Tank
- - - Former Gasoline UST Location
- - - Former Heating Oil UST Location
- 2011 Boring Locations
- ⊕ Existing Monitoring Well Location
- ⊕ 2013 Monitoring Well Location
- 2013 Boring Locations

E EDISON AVENUE







TerraGraphics
Environmental Engineering, Inc.

DRAWN BY:

M. STUDER

PROJECT MANAGER:

M. PROCSAL

PROJECT NO:

13073

DATE:

2/20/2014

PROJECT NAME:

PET HEALTH CLINIC
2210 EAST EDISON AVENUE
SUNNYSIDE, WA

FIGURE 5

**GROUNDWATER
CONTOURS
NOVEMBER 2013**

Table 1
Soil Analytical Results (mg/kg)
Pet Health Clinic
Sunnyside, Washington

Sample ID/Sample Date		Sample Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	Lead (mg/kg)	EDC (mg/kg)	EDB (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	GRO (mg/kg)	Heavy Oil ** (mg/kg)	DRO (mg/kg)	Motor Oil (mg/kg)
BH-1 8'	12/8/2011	8	<0.0092	<0.023	<0.023 J	<0.046 J	<0.023	6.5	<0.023	<0.023 ***	<0.023	-	-	-	8.1 J	21 J, B	15 J,B	<12
BH-2 5'	12/9/2011	5	1.0	1.7	2.4 J	13.8 J	0.8	11	<0.025 ***	<0.025 ***	<0.025	-	-	-	130	35 J	13 J	22 J,B
BH-3 6'	12/8/2011	6	4.9	60	28	164	6.4	9.4	<0.025 ***	<0.025 ***	<0.025	-	-	-	2,200	2,216 Y, B	2,200 Y,B	16 J
BH-4 11'	12/9/2011	11	0.06	0.43	0.14 J	0.63 J	<0.036	9.3	<0.036 ***	<0.036 ***	<0.036	-	-	-	8.3 J	21.8 J,B	<7.5	18 J,B
BH-5 6'	12/9/2011	6	0.067	0.39	0.073 J	0.33 J	<0.035	8.6	0.037 J	<0.035 ***	<0.035	-	-	-	7.1 J	21.1 J,B	<8.1	17 J,B
BH-6 5'	12/9/2011	5	0.023 J ***	0.13	0.034 J	0.12 J	<0.023	5.6	<0.023	0.024 J	<0.023	-	-	-	3.9 J	22.4 J,B	<6.8	19 J,B
BH-7 8'	11/11/2013	8	<0.0012 J	<0.0024 J	0.0016 J	0.0072 J	<0.006 J	8.1	<0.0012 J	<0.0012 J	<0.0012 J	<0.012 J	<0.012 J	<0.012 J	<6.6	<94	<31	<63
BH-8 6'	11/11/2013	6	<0.0012 J	<0.0023 J	<0.0012 J	0.0025 J	<0.0058 J	8.0	<0.0012 J	<0.0012 J	<0.0012 J	<0.012 J	<0.012 J	<0.012 J	<6.7	<99	<33	<66
BH-9 5'	11/11/2013	5	<0.0011 J	<0.0021 J	0.0011 J	0.0032 J	<0.0054 J	5.2	<0.0011 J	<0.0011 J	<0.0011 J	<0.011 J	<0.011 J	<0.011 J	<5.6	<93	<31	<62
BH-10 6'	11/11/2013	6	<0.00095 J	<0.0019 J	<0.00095 J	<0.00285 J	<0.0048 J	9.2	<0.00095 J	<0.00095 J	<0.00095 J	<0.0095 J	<0.0095 J	<0.0095 J	23	142.5 Y	110 Y	<65
BH-11 5'	11/11/2013	5	<0.0013 J	<0.0025 J	<0.0013 J	<0.0038 J	<0.0063 J	8.1	<0.0013 J	<0.0013 J	<0.0013 J	<0.013 J	<0.013 J	<0.013 J	<5.9	<93	<31	<62
BH-12 6'	11/11/2013	6	<0.0012 J	<0.0023 J	0.012 J	0.104 J	0.028 J	10	<0.0012 J	<0.001 J	<0.0012 J	<0.012 J	<0.012 J	<0.012 J	<87	455 Y	420 Y	<69
BH-13 6'	11/11/2013	6	<0.00091 J	<0.0018 J	<0.00091 J	<0.00271 J	<0.0046 J	9.8	<0.00091 J	<0.00091 J	<0.00091 J	<0.0091 J	<0.0091 J	<0.0091 J	<6.5	<99	<33	<66
BH-14 6'	11/12/2013	6	<0.25 ***	0.75	23 J	89.9 J	8.7	14	<0.25 ***	<0.63 ***	<0.63	<0.63	<0.63	<6.3 J	1,600 J	1430 Y,J	1,400 Y,J	<60
BH-14D 6'	11/12/2013	6	<0.26 ***	<0.64	13 J	50 J	5.7	14	<0.26 ***	<0.64 ***	<0.64	<0.64	<0.64	<6.4 J	870 J	511 Y,J	480 Y,J	<62
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (mg/kg)			0.03 ***	7	6	9	5	250	Method B 0.024	0.005	0.1	-	-	-	100 or 30*	2,000	2,000	2,000 or 4,000**

Notes:

all concentrations reported in mg/kg = milligrams per kilogram

GRO = Gasoline Range Organics analyzed by Method NWTPH-Gx

DRO = Diesel Range Organics analyzed by Method NWTPH-Dx

MTBE = methyl tert-butyl ether

EDC = 1,2-dichloroethane

EDB = ethylene dibromide

< = less than the method detection limit

ETBE = Ethyl tert-Butyl Ether

TAME = Tert-amyl methyl ether

TBA = Tert-butyl alcohol

bgs = below ground surface

Concentrations in **BOLD** are above the Screening Levels as defined by Washington's Model Toxics Control Act (MTCA) (WAC 173-340)

Method A unrestricted cleanup levels (Table 740-1, WAC 173-340-900).

* = gasoline mixtures without benzene and the total of ethylbenzene, toluene, and xylenes are less than 1% of the gasoline mixture then cleanup level is 100 mg/kg,

all other gasoline mixtures then cleanup level is 30 mg/kg.

**= summation of DRO and Motor Oil values. 1/2 detection limit used where necessary in summation of heavy oil concentrations.

***= reporting limit exceeds the cleanup level.

m+p-Xylene and o-Xylene results were added to represent Total Xylene concentration and compared to Total Xylene Cleanup Level.

J = reported result was flagged "J" because it is an estimated value.

B = reported result was flagged "B" because the compound was found in the blank and sample.

For EDC a MTCA Method A Cleanup Level has not been established therefore the MTCA Method B Cleanup Level is listed which was established based on the leaching pathway (protective of groundwater).

- = no value established.

Y = reported result was flagged "Y" because the result is resembles a typical fuel pattern as indicated by the analytical laboratory.

Table 2
Groundwater Analytical Results (µg/L)
Pet Health Clinic
Sunnyside, Washington

Sample ID/Sample Date	Depth to Water (ft. bgs)	Top of Casing Elevation (ft.)	Groundwater Elevation (famsl)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	EDC (µg/L)	EDB (µg/L)	GRO (µg/L)	Heavy Oil** (µg/L)	DRO (µg/L)	Motor Oil (µg/L)	Lead (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)
MW-1																			
12/15/2011	6	750.4	744.40	<0.15	<0.15	<0.15	<0.45	<0.15	<0.15	<0.002	14 T, B	118 T	<72	82 T	3.1 T	<0.15	NS	NS	-
duplicate 12/15/2011	6	750.4	744.40	<0.15	<0.15	<0.15	<0.45	<0.15	<0.15	<0.002	<10	175 T	<70	140 T	4.2 T	<0.15	NS	NS	-
11/13/2013	5.77	750.4	744.63	<0.10	<0.10	<0.10	<0.30	<0.40	<0.10	<0.010	<50	<370	<120	<250	<2.0	<0.10	<0.50	<10	<0.50
MW-2																			
12/15/2011	5.75	750.03	744.28	120	94	340	1,360	90	<0.15	<0.002	7,800 B	2,570 Y	2,100 Y	470 Y	4.6 T	<0.15	NS	NS	-
11/13/2013	4.7	750.03	745.33	70	1.4	68	26	25	<0.10	<0.010	2,400	2,510 Y	2,000 Y	510 Y	<2.0	<0.10	<0.50	<10	<0.50
MW-3																			
12/15/2011	5.99	749.91	743.92	1,700	150	360	1,740	120	130	<0.002	11,000 B	24,000 Y	21,000 Y	3,000 Y	5.6 T	<0.15	NS	NS	-
11/13/2013	3.55	749.91	746.36	230 J	99 J	120 J	350 J	120 J	49	<0.010	16,000	16,100 Y	14,000 Y	2,100 Y	<2.0	<0.10	<0.50	<10	<0.50
MW-4																			
11/13/2013	5.89	750.50	744.61	0.84	0.12	<0.10	<0.20	<0.40	4.9	<0.010	<50	365 Y	240 Y	<250	<2.0	<0.10	<0.50	<10	<0.50
MW-5																			
11/13/2013	5.77	750.45	744.68	<0.10	<0.10	<0.10	<0.20	<0.40	<0.10	<0.010	<50	<380	<130	<250	<2.0	<0.10	<0.50	<10	<0.50
DW																			
11/14/2013	NA	NA	NA	<0.10	<0.10	<0.10	<0.20	<0.40	<0.10	NS	<50	<360	<120	<240	NS	<0.10	<0.50	<10	<0.50
duplicate 11/14/2013	NA	NA	NA	<0.10	<0.10	<0.10	<0.20	<0.40	<0.10	NS	<50	<360	<120	<240	NS	<0.10	<0.50	<10	<0.50
MTCA Method A Groundwater Cleanup Levels (µg/L)				5	1,000	700	1,000	160	5	0.01	800 or 1,000*	500	500	500	15	20	-	-	-
MTCA Method B Unrestricted (residential) Table B-1 Groundwater Screening Levels for Vapor Intrusion (ug/L)				2.4 C	15,000 NC	2,800 NC	750 NC	170 NC	4.2 C	0.74 C	-	-	-	-	-	610 C	-	-	-

Notes:

NS = Not sampled.

NA = Not applicable.

famsl = feet above mean sea level

all concentrations reported in µg/L = micrograms per Liter

GRO = Gasoline Range Organics analyzed by Method NWTPH-Gx

DRO = Diesel Range Organics analyzed by Method NWTPH-Dx

MTBE = methyl tert-butyl ether

EDC = 1,2-dichloroethane

EDB = ethylene dibromide

ETBE = Ethyl tert-Butyl Ether

TAME = Tert-amyl methyl ether

TBA = Tert-butyl alcohol

< = less than the method detection limit

Concentrations in **BOLD** are above the Screening Levels as defined by Washington's Model Toxics Control Act (MTCA) (WAC 173-340)

Method A cleanup levels (Table 720-1, WAC 173-340-900)

m+p-Xylene and o-Xylene results were added to represent Total Xylene concentration and compared to Total Xylene Cleanup Level.

* = cleanup level when benzene is present is 800 µg/L , and 1,000 µg/L when there is no detectable benzene present.

**= summation of DRO and Motor Oil values

J = reported result was flagged "J" because it is an estimated value.

T = reported result was flagged "T" because the result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

B = reported result was flagged "B" because the compound was found in the blank and sample.

Y = reported result was flagged "Y" because the result is due primarily to a mixture of jet fuel/gasoline range product, weathered diesel fuel, and a mineral/transformer oil range product.

C = substance's toxicity as a carcinogen.

NC = substance's toxicity as a non-carcinogen.

- = No established value.

Table 3
Natural Attenuation Parameters
Pet Health Clinic
Sunnyside, Washington

Sample ID/Sample Date			Top of Casing Elevation (feet)	Groundwater Elevation (famsl)	Nitrate as N (µg/L)	Sulfate (µg/L)	Alkalinity (µg/L)	Manganese (µg/L)	Ferrous Iron (µg/L)	TSS (µg/L)
		(feet bgs)								
MW-1	11/13/2013	5.77	750.4	744.63	21,000 J	530,000	370,000	920	0	<3,300
MW-2	11/13/2013	4.70	750.03	745.33	<900 J	48,000	880,000	6,400	3,200	12,000
MW-3	11/13/2013	3.55	749.91	746.36	<900 J	<1,200	850,000	4,300	500	13,000
MW-4	11/13/2013	5.89	750.50	744.61	<900 J	6,800	380,000	2,200	0	32,000
MW-5	11/13/2013	5.77	750.45	744.68	<900 J	86,000	620,000	2,800	0	8,000

Notes:

famsl = feet above mean sea level

all concentrations reported in µg/L = micrograms per Liter

< = less than the method detection limit

- = no value established

TSS = Total Suspended Solids

J = Sample was prepped or analyzed beyond the specified holding time and is an estimate.

Table 4
Water Quality Parameters
Pet Health Clinic
Sunnyside, Washington

Well ID	Time	pH	Electrical Conductivity (mS)	Temperature (degrees C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	ORP (mV)
MW-1	14:52	7.36	1.614	14.06	2.16	21.0	192.2
	14:56	7.24	1.636	14.19	1.77	17.8	192.3
	15:00	7.25	1.807	14.28	1.38	13.5	193.9
	15:04	7.25	1.896	14.37	1.24	12.2	194.9
MW-2	11:38	7.00	1.687	18.94	1.71	17.2	-1.2
	11:42	6.91	1.734	16.54	1.16	11.9	-48.0
	11:46	6.94	1.737	16.73	0.98	10.1	-70.0
	11:50	6.96	1.727	16.85	0.84	8.7	-42.0
	11:52	6.97	1.713	16.97	0.80	8.2	-90.2
MW-3	12:44	7.01	1.487	16.50	0.81	9.2	-67.1
	12:48	6.89	1.483	16.29	0.58	5.9	-75.3
	12:52	6.85	1.493	16.49	0.42	4.2	-89.3
	12:56	6.88	1.496	16.38	0.33	3.3	-22.5
	12:58	6.87	1.494	16.46	0.29	2.9	-92.5
MW-4	13:50	7.11	1.434	17.28	6.85	71.3	14.9
	13:54	7.07	1.423	17.23	7.00	73.0	9.7
	13:58	7.08	1.402	17.38	6.69	69.9	-3.1
	14:02	7.08	1.331	17.38	6.02	62.9	-45.7
	14:04	7.07	1.253	17.47	5.21	54.4	-77.1
	14:06	7.06	1.176	17.52	4.62	48.3	-93.2
	14:08	7.06	1.116	17.63	3.99	41.1	-102.4
MW-5	10:05	7.16	1.945	15.87	5.99	60.8	155.2
	10:10	7.01	1.695	16.31	4.16	42.4	86.2
	10:14	6.94	1.714	16.53	2.62	21.3	38.9
	10:18	6.91	1.624	16.58	2.04	20.9	44.3
	10:22	6.89	1.538	16.64	1.66	17.1	46.8
	10:26	6.89	1.506	16.49	2.53	28.0	68.4
DW	16:05	7.56	0.560	13.13	1.99	19.0	220.1
	16:09	7.52	0.565	13.00	1.86	17.9	222.0
	16:13	7.45	0.564	13.38	1.80	17.3	227.1
	16:17	7.39	0.564	13.40	1.77	16.9	234.0

Notes:

mS = milli Siemens

C = celcius

mg/L = milligrams per Liter

ORP = oxidation reduction potential

mV = millivolts

NTU = Nephelometric Turbidity Units

- = Not sampled. Well purged dry.

* = instrument readings were unstable and as a result recorded values are flagged as estimates.

Appendix A

Photographs

Photo 1: Core from BH-13.



Photo 2: Core from BH-15.



Photo 3: Front of the Pet Health Clinic Building.



Photo 4: Rear of the Pet Health Clinic Building.



Appendix B

Analytical Reports with Chain-of-Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-41314-1

Client Project/Site: Pet Health Clinic (13073-2)

For:

TerraGraphics Inc
dba TerraGraphics Environmental Eng Inc
121 South Jackson
Moscow, Idaho 83843

Attn: Mike Procsal

Pamela R. Johnson

Authorized for release by:
12/3/2013 4:56:21 PM

Pam Johnson, Project Manager I
(253)922-2310 x112
pamr.johnson@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Job ID: 580-41314-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 11/16/2013 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

Except:

The following samples MW-1 (580-41314-1), MW-2 (580-41314-2), MW-3 (580-41314-3), MW-4 (580-41314-4), MW-5 (580-41314-5) were received outside of holding time for Nitrate analysis. All samples were logged in and analysis has been assigned.

Manganese was not listed on the Chain-of-Custody (COC), but was requested by the client when the bottle order was received. It has been added to the log-in.

GC/MS VOA - Method 8260B

In analytical batch 149922 and 150048, the following sample MW-3 (580-41314-3) required a dilution in which the analysis was performed outside of the analytical holding time. The target analytes 1,2-Dichloroethane, Benzene, Ethylbenzene, m-Xylene & p-Xylene, Naphthalene, o-Xylene and Toluene were qualified "E" in the initial in hold analysis. The 50X dilution in analytical batch 150048 was analyzed two minutes outside the analytical holding time. Therefore the in hold analysis was reported as the primary analysis for compounds qualified "E" and the outside holding time dilution results are reported as secondary data and are qualified "H".

The following sample MW-3 (580-41314-3) was diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

In analytical batch 150048, the associated samples DW (580-41314-6), MW-4 (580-41314-4), MW-5 (580-41314-5) were reanalyzed due to the likelihood of carryover from a previously analyzed heavily contaminated sample in the original analysis.

GC/MS VOA - Method NWTPH-Gx

The continuing calibration verification (CCV) associated with analytical batch 149705 recovered above the upper control limit for GRO. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been qualified "^" and reported. The following samples are impacted: (CCB 580-149705/28), (CCV 580-149705/27), DWD (580-41314-7).

The continuing calibration blank (CCB 580-149705/28) in analytical batch 149705 contained GRO analyte above the reporting limit (RL). The sample DWD (580-41314-7) associated with this blank did not contain the target compound; therefore, re-extraction and/or re-analysis of samples were not performed. The data have been qualified "^" and reported.

No other analytical or quality issues were noted.

GC Semi VOA - Method NWTPH-Dx

In analytical batch 150077, for the following samples MW-2 (580-41314-2), MW-3 (580-41314-3) from preparation batch 149998, the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) ranges are due to what most closely resembles a complex mixture of a gasoline/kerosene range product, heavily weathered/degraded diesel fuel, a mineral/transformer oil range product, motor oil and biogenic interference.

The affected analyte ranges have been qualified "Y" and reported.

In analytical batch 150077, for the following sample MW-4 (580-41314-4) from preparation batch 149998, the results in the #2 Diesel Fuel (C10-C24) range are due to what most closely resembles a complex mixture of weathered/degraded diesel fuel, a mineral/transformer oil range product, motor oil and biogenic interference.

The affected analyte range has been qualified "Y" and reported.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

General Chemistry - Method 300.0

Case Narrative

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Job ID: 580-41314-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

The following samples MW-1 (580-41314-1), MW-2 (580-41314-2), MW-3 (580-41314-3), MW-4 (580-41314-4), MW-5 (580-41314-5) were received outside of holding time for Nitrate. The data has been qualified "H" and reported.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Definitions/Glossary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-1

Date Collected: 11/13/13 15:06

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/26/13 18:05	1
EDC	ND		0.10		ug/L			11/26/13 18:05	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/26/13 18:05	1
Ethylbenzene	ND		0.10		ug/L			11/26/13 18:05	1
MTBE	ND		0.10		ug/L			11/26/13 18:05	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/26/13 18:05	1
Naphthalene	ND		0.40		ug/L			11/26/13 18:05	1
o-Xylene	ND		0.10		ug/L			11/26/13 18:05	1
TAME	ND		0.50		ug/L			11/26/13 18:05	1
TBA	ND		10		ug/L			11/26/13 18:05	1
Toluene	ND		0.10		ug/L			11/26/13 18:05	1
Chloromethane	ND		0.10		ug/L			11/26/13 18:05	1
Vinyl chloride	ND		0.020		ug/L			11/26/13 18:05	1
Bromomethane	ND		0.10		ug/L			11/26/13 18:05	1
Chloroethane	ND		0.25		ug/L			11/26/13 18:05	1
Trichlorofluoromethane	ND		0.10		ug/L			11/26/13 18:05	1
1,1-Dichloroethene	ND		0.10		ug/L			11/26/13 18:05	1
Methylene Chloride	ND		0.50		ug/L			11/26/13 18:05	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 18:05	1
1,1-Dichloroethane	ND		0.10		ug/L			11/26/13 18:05	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 18:05	1
Chloroform	ND		0.10		ug/L			11/26/13 18:05	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/26/13 18:05	1
Carbon tetrachloride	ND		0.10		ug/L			11/26/13 18:05	1
Trichloroethene	ND		0.10		ug/L			11/26/13 18:05	1
1,2-Dichloropropane	ND		0.10		ug/L			11/26/13 18:05	1
Dichlorobromomethane	ND		0.10		ug/L			11/26/13 18:05	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 18:05	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 18:05	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/26/13 18:05	1
Tetrachloroethene	ND		0.10		ug/L			11/26/13 18:05	1
Chlorodibromomethane	ND		0.10		ug/L			11/26/13 18:05	1
Chlorobenzene	ND		0.10		ug/L			11/26/13 18:05	1
Bromoform	ND		0.10		ug/L			11/26/13 18:05	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/26/13 18:05	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:05	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:05	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 120		11/26/13 18:05	1
Ethylbenzene-d10	91		75 - 125		11/26/13 18:05	1
Fluorobenzene (Surr)	100		70 - 130		11/26/13 18:05	1
Toluene-d8 (Surr)	98		75 - 125		11/26/13 18:05	1
Trifluorotoluene (Surr)	106		80 - 125		11/26/13 18:05	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/23/13 23:52	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-1

Lab Sample ID: 580-41314-1

Date Collected: 11/13/13 15:06

Matrix: Water

Date Received: 11/16/13 10:15

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		50 - 150					11/23/13 23:52	1
Trifluorotoluene (Surr)	106		50 - 150					11/23/13 23:52	1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 16:42	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	124		70 - 130				11/21/13 06:50	11/21/13 16:42	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		11/27/13 09:32	12/02/13 09:02	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/27/13 09:32	12/02/13 09:02	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150				11/27/13 09:32	12/02/13 09:02	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 13:19	5
Manganese	0.92		0.0020		mg/L		11/27/13 16:48	12/02/13 13:19	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	21	H	9.0		mg/L			11/19/13 18:12	10
Sulfate	530		12		mg/L			11/19/13 18:12	10
Alkalinity	370		5.0		mg/L			11/21/13 08:46	1
Total Suspended Solids	ND		3.3		mg/L			11/19/13 13:31	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-2

Lab Sample ID: 580-41314-2

Date Collected: 11/13/13 11:52

Matrix: Water

Date Received: 11/16/13 10:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	70		0.10		ug/L			11/26/13 18:34	1
EDC	ND		0.10		ug/L			11/26/13 18:34	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/26/13 18:34	1
Ethylbenzene	68		0.10		ug/L			11/26/13 18:34	1
MTBE	ND		0.10		ug/L			11/26/13 18:34	1
m-Xylene & p-Xylene	19		0.20		ug/L			11/26/13 18:34	1
Naphthalene	25		0.40		ug/L			11/26/13 18:34	1
o-Xylene	6.8		0.10		ug/L			11/26/13 18:34	1
TAME	ND		0.50		ug/L			11/26/13 18:34	1
TBA	ND		10		ug/L			11/26/13 18:34	1
Toluene	1.4		0.10		ug/L			11/26/13 18:34	1
Chloromethane	ND		0.10		ug/L			11/26/13 18:34	1
Vinyl chloride	ND		0.020		ug/L			11/26/13 18:34	1
Bromomethane	ND		0.10		ug/L			11/26/13 18:34	1
Chloroethane	ND		0.25		ug/L			11/26/13 18:34	1
Trichlorofluoromethane	ND		0.10		ug/L			11/26/13 18:34	1
1,1-Dichloroethene	ND		0.10		ug/L			11/26/13 18:34	1
Methylene Chloride	ND		0.50		ug/L			11/26/13 18:34	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 18:34	1
1,1-Dichloroethane	ND		0.10		ug/L			11/26/13 18:34	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 18:34	1
Chloroform	ND		0.10		ug/L			11/26/13 18:34	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/26/13 18:34	1
Carbon tetrachloride	ND		0.10		ug/L			11/26/13 18:34	1
Trichloroethene	ND		0.10		ug/L			11/26/13 18:34	1
1,2-Dichloropropane	ND		0.10		ug/L			11/26/13 18:34	1
Dichlorobromomethane	ND		0.10		ug/L			11/26/13 18:34	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 18:34	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 18:34	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/26/13 18:34	1
Tetrachloroethene	ND		0.10		ug/L			11/26/13 18:34	1
Chlorodibromomethane	ND		0.10		ug/L			11/26/13 18:34	1
Chlorobenzene	ND		0.10		ug/L			11/26/13 18:34	1
Bromoform	ND		0.10		ug/L			11/26/13 18:34	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/26/13 18:34	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:34	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:34	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/26/13 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 120		11/26/13 18:34	1
Ethylbenzene-d10	103		75 - 125		11/26/13 18:34	1
Fluorobenzene (Surr)	103		70 - 130		11/26/13 18:34	1
Toluene-d8 (Surr)	103		75 - 125		11/26/13 18:34	1
Trifluorotoluene (Surr)	98		80 - 125		11/26/13 18:34	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	2.4		0.050		mg/L			11/24/13 02:28	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-2

Lab Sample ID: 580-41314-2

Date Collected: 11/13/13 11:52

Matrix: Water

Date Received: 11/16/13 10:15

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150					11/24/13 02:28	1
Trifluorotoluene (Surr)	105		50 - 150					11/24/13 02:28	1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 17:07	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	117		70 - 130				11/21/13 06:50	11/21/13 17:07	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	2.0	Y	0.12		mg/L		11/27/13 09:32	12/02/13 09:18	1
Motor Oil (>C24-C36)	0.51	Y	0.25		mg/L		11/27/13 09:32	12/02/13 09:18	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				11/27/13 09:32	12/02/13 09:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 13:23	5
Manganese	6.4		0.0020		mg/L		11/27/13 16:48	12/02/13 13:23	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.90		mg/L			11/19/13 16:46	1
Sulfate	48		1.2		mg/L			11/19/13 16:46	1
Alkalinity	880		5.0		mg/L			11/21/13 08:46	1
Total Suspended Solids	12		4.0		mg/L			11/19/13 13:31	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-3

Lab Sample ID: 580-41314-3

Date Collected: 11/13/13 13:00

Matrix: Water

Date Received: 11/16/13 10:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	230	E	0.10		ug/L			11/26/13 19:03	1
EDC	49		0.10		ug/L			11/26/13 19:03	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/26/13 19:03	1
Ethylbenzene	120	E	0.10		ug/L			11/26/13 19:03	1
MTBE	ND		0.10		ug/L			11/26/13 19:03	1
m-Xylene & p-Xylene	190	E	0.20		ug/L			11/26/13 19:03	1
Naphthalene	120	E	0.40		ug/L			11/26/13 19:03	1
o-Xylene	160	E	0.10		ug/L			11/26/13 19:03	1
TAME	ND		0.50		ug/L			11/26/13 19:03	1
TBA	ND		10		ug/L			11/26/13 19:03	1
Toluene	99	E	0.10		ug/L			11/26/13 19:03	1
Chloromethane	0.55		0.10		ug/L			11/26/13 19:03	1
Vinyl chloride	0.043		0.020		ug/L			11/26/13 19:03	1
Bromomethane	ND		0.10		ug/L			11/26/13 19:03	1
Chloroethane	ND		0.25		ug/L			11/26/13 19:03	1
Trichlorofluoromethane	ND		0.10		ug/L			11/26/13 19:03	1
1,1-Dichloroethene	ND		0.10		ug/L			11/26/13 19:03	1
Methylene Chloride	ND		0.50		ug/L			11/26/13 19:03	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 19:03	1
1,1-Dichloroethane	ND		0.10		ug/L			11/26/13 19:03	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 19:03	1
Chloroform	ND		0.10		ug/L			11/26/13 19:03	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/26/13 19:03	1
Carbon tetrachloride	ND		0.10		ug/L			11/26/13 19:03	1
Trichloroethene	ND		0.10		ug/L			11/26/13 19:03	1
1,2-Dichloropropane	ND		0.10		ug/L			11/26/13 19:03	1
Dichlorobromomethane	ND		0.10		ug/L			11/26/13 19:03	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 19:03	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 19:03	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/26/13 19:03	1
Tetrachloroethene	ND		0.10		ug/L			11/26/13 19:03	1
Chlorodibromomethane	ND		0.10		ug/L			11/26/13 19:03	1
Chlorobenzene	ND		0.10		ug/L			11/26/13 19:03	1
Bromoform	ND		0.10		ug/L			11/26/13 19:03	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/26/13 19:03	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/26/13 19:03	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/26/13 19:03	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/26/13 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 120		11/26/13 19:03	1
Ethylbenzene-d10	111		75 - 125		11/26/13 19:03	1
Fluorobenzene (Surr)	101		70 - 130		11/26/13 19:03	1
Toluene-d8 (Surr)	109		75 - 125		11/26/13 19:03	1
Trifluorotoluene (Surr)	98		80 - 125		11/26/13 19:03	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3300	H	5.0		ug/L			11/28/13 00:02	50
EDC	120	H	5.0		ug/L			11/28/13 00:02	50

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-3

Lab Sample ID: 580-41314-3

Date Collected: 11/13/13 13:00

Matrix: Water

Date Received: 11/16/13 10:15

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	720	H	5.0		ug/L			11/28/13 00:02	50
m-Xylene & p-Xylene	2200	H	10		ug/L			11/28/13 00:02	50
Naphthalene	120	H	20		ug/L			11/28/13 00:02	50
o-Xylene	1400	H	5.0		ug/L			11/28/13 00:02	50
Toluene	200	H	5.0		ug/L			11/28/13 00:02	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 120		11/28/13 00:02	50
Ethylbenzene-d10	96		75 - 125		11/28/13 00:02	50
Fluorobenzene (Surr)	103		70 - 130		11/28/13 00:02	50
Toluene-d8 (Surr)	100		75 - 125		11/28/13 00:02	50
Trifluorotoluene (Surr)	104		80 - 125		11/28/13 00:02	50

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	16		1.0		mg/L			11/24/13 04:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		50 - 150		11/24/13 04:19	20
Trifluorotoluene (Surr)	107		50 - 150		11/24/13 04:19	20

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	122		70 - 130	11/21/13 06:50	11/21/13 18:23	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	2.1	Y	0.24		mg/L		11/27/13 09:32	12/02/13 09:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	11/27/13 09:32	12/02/13 09:33	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	14	Y	1.2		mg/L		11/27/13 09:32	12/02/13 15:00	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 13:28	5
Manganese	4.3		0.0020		mg/L		11/27/13 16:48	12/02/13 13:28	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.90		mg/L			11/19/13 17:00	1
Sulfate	ND		1.2		mg/L			11/19/13 17:00	1
Alkalinity	850		5.0		mg/L			11/21/13 08:46	1
Total Suspended Solids	13		5.0		mg/L			11/19/13 13:31	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-4

Lab Sample ID: 580-41314-4

Date Collected: 11/13/13 14:08

Matrix: Water

Date Received: 11/16/13 10:15

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.84		0.10		ug/L			11/27/13 22:36	1
EDC	4.9		0.10		ug/L			11/27/13 22:36	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/27/13 22:36	1
Ethylbenzene	ND		0.10		ug/L			11/27/13 22:36	1
MTBE	ND		0.10		ug/L			11/27/13 22:36	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/27/13 22:36	1
Naphthalene	ND		0.40		ug/L			11/27/13 22:36	1
o-Xylene	ND		0.10		ug/L			11/27/13 22:36	1
TAME	ND		0.50		ug/L			11/27/13 22:36	1
TBA	ND		10		ug/L			11/27/13 22:36	1
Toluene	0.12		0.10		ug/L			11/27/13 22:36	1
Chloromethane	ND		0.10		ug/L			11/27/13 22:36	1
Vinyl chloride	ND		0.020		ug/L			11/27/13 22:36	1
Bromomethane	ND		0.10		ug/L			11/27/13 22:36	1
Chloroethane	ND		0.25		ug/L			11/27/13 22:36	1
Trichlorofluoromethane	ND		0.10		ug/L			11/27/13 22:36	1
1,1-Dichloroethene	ND		0.10		ug/L			11/27/13 22:36	1
Methylene Chloride	ND		0.50		ug/L			11/27/13 22:36	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 22:36	1
1,1-Dichloroethane	ND		0.10		ug/L			11/27/13 22:36	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 22:36	1
Chloroform	ND		0.10		ug/L			11/27/13 22:36	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/27/13 22:36	1
Carbon tetrachloride	ND		0.10		ug/L			11/27/13 22:36	1
Trichloroethene	ND		0.10		ug/L			11/27/13 22:36	1
1,2-Dichloropropane	ND		0.10		ug/L			11/27/13 22:36	1
Dichlorobromomethane	ND		0.10		ug/L			11/27/13 22:36	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 22:36	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 22:36	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/27/13 22:36	1
Tetrachloroethene	ND		0.10		ug/L			11/27/13 22:36	1
Chlorodibromomethane	ND		0.10		ug/L			11/27/13 22:36	1
Chlorobenzene	ND		0.10		ug/L			11/27/13 22:36	1
Bromoform	ND		0.10		ug/L			11/27/13 22:36	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/27/13 22:36	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/27/13 22:36	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/27/13 22:36	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/27/13 22:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 120		11/27/13 22:36	1
Ethylbenzene-d10	94		75 - 125		11/27/13 22:36	1
Fluorobenzene (Surr)	102		70 - 130		11/27/13 22:36	1
Toluene-d8 (Surr)	95		75 - 125		11/27/13 22:36	1
Trifluorotoluene (Surr)	98		80 - 125		11/27/13 22:36	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/24/13 00:14	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-4

Date Collected: 11/13/13 14:08

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150					11/24/13 00:14	1
Trifluorotoluene (Surr)	104		50 - 150					11/24/13 00:14	1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 18:49	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	113		70 - 130				11/21/13 06:50	11/21/13 18:49	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.24	Y	0.13		mg/L		11/27/13 09:32	12/02/13 09:49	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/27/13 09:32	12/02/13 09:49	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				11/27/13 09:32	12/02/13 09:49	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 13:33	5
Manganese	2.2		0.0020		mg/L		11/27/13 16:48	12/02/13 13:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.90		mg/L			11/19/13 17:15	1
Sulfate	68		1.2		mg/L			11/19/13 17:15	1
Alkalinity	380		5.0		mg/L			11/21/13 08:46	1
Total Suspended Solids	32		4.0		mg/L			11/19/13 13:31	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-5

Date Collected: 11/13/13 10:35

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/27/13 23:05	1
EDC	ND		0.10		ug/L			11/27/13 23:05	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/27/13 23:05	1
Ethylbenzene	ND		0.10		ug/L			11/27/13 23:05	1
MTBE	ND		0.10		ug/L			11/27/13 23:05	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/27/13 23:05	1
Naphthalene	ND		0.40		ug/L			11/27/13 23:05	1
o-Xylene	ND		0.10		ug/L			11/27/13 23:05	1
TAME	ND		0.50		ug/L			11/27/13 23:05	1
TBA	ND		10		ug/L			11/27/13 23:05	1
Toluene	ND		0.10		ug/L			11/27/13 23:05	1
Chloromethane	ND		0.10		ug/L			11/27/13 23:05	1
Vinyl chloride	ND		0.020		ug/L			11/27/13 23:05	1
Bromomethane	ND		0.10		ug/L			11/27/13 23:05	1
Chloroethane	ND		0.25		ug/L			11/27/13 23:05	1
Trichlorofluoromethane	ND		0.10		ug/L			11/27/13 23:05	1
1,1-Dichloroethene	ND		0.10		ug/L			11/27/13 23:05	1
Methylene Chloride	ND		0.50		ug/L			11/27/13 23:05	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 23:05	1
1,1-Dichloroethane	ND		0.10		ug/L			11/27/13 23:05	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 23:05	1
Chloroform	ND		0.10		ug/L			11/27/13 23:05	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/27/13 23:05	1
Carbon tetrachloride	ND		0.10		ug/L			11/27/13 23:05	1
Trichloroethene	ND		0.10		ug/L			11/27/13 23:05	1
1,2-Dichloropropane	ND		0.10		ug/L			11/27/13 23:05	1
Dichlorobromomethane	ND		0.10		ug/L			11/27/13 23:05	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 23:05	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 23:05	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/27/13 23:05	1
Tetrachloroethene	ND		0.10		ug/L			11/27/13 23:05	1
Chlorodibromomethane	ND		0.10		ug/L			11/27/13 23:05	1
Chlorobenzene	ND		0.10		ug/L			11/27/13 23:05	1
Bromoform	ND		0.10		ug/L			11/27/13 23:05	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/27/13 23:05	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:05	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:05	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 120		11/27/13 23:05	1
Ethylbenzene-d10	92		75 - 125		11/27/13 23:05	1
Fluorobenzene (Surr)	98		70 - 130		11/27/13 23:05	1
Toluene-d8 (Surr)	95		75 - 125		11/27/13 23:05	1
Trifluorotoluene (Surr)	96		80 - 125		11/27/13 23:05	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/24/13 00:37	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-5

Lab Sample ID: 580-41314-5

Date Collected: 11/13/13 10:35

Matrix: Water

Date Received: 11/16/13 10:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150		11/24/13 00:37	1
Trifluorotoluene (Surr)	106		50 - 150		11/24/13 00:37	1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 19:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	128		70 - 130	11/21/13 06:50	11/21/13 19:14	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		11/27/13 09:32	12/02/13 10:04	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/27/13 09:32	12/02/13 10:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150	11/27/13 09:32	12/02/13 10:04	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 13:38	5
Manganese	2.8		0.0020		mg/L		11/27/13 16:48	12/02/13 13:38	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.90		mg/L			11/19/13 17:29	1
Sulfate	86		12		mg/L			11/19/13 19:39	10
Alkalinity	620		5.0		mg/L			11/21/13 08:46	1
Total Suspended Solids	8.0		4.0		mg/L			11/19/13 13:31	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: DW

Date Collected: 11/14/13 16:20

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/27/13 23:33	1
EDC	ND		0.10		ug/L			11/27/13 23:33	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/27/13 23:33	1
Ethylbenzene	ND		0.10		ug/L			11/27/13 23:33	1
MTBE	ND		0.10		ug/L			11/27/13 23:33	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/27/13 23:33	1
Naphthalene	ND		0.40		ug/L			11/27/13 23:33	1
o-Xylene	ND		0.10		ug/L			11/27/13 23:33	1
TAME	ND		0.50		ug/L			11/27/13 23:33	1
TBA	ND		10		ug/L			11/27/13 23:33	1
Toluene	ND		0.10		ug/L			11/27/13 23:33	1
Chloromethane	ND		0.10		ug/L			11/27/13 23:33	1
Vinyl chloride	ND		0.020		ug/L			11/27/13 23:33	1
Bromomethane	ND		0.10		ug/L			11/27/13 23:33	1
Chloroethane	ND		0.25		ug/L			11/27/13 23:33	1
Trichlorofluoromethane	ND		0.10		ug/L			11/27/13 23:33	1
1,1-Dichloroethene	ND		0.10		ug/L			11/27/13 23:33	1
Methylene Chloride	ND		0.50		ug/L			11/27/13 23:33	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 23:33	1
1,1-Dichloroethane	ND		0.10		ug/L			11/27/13 23:33	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 23:33	1
Chloroform	ND		0.10		ug/L			11/27/13 23:33	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/27/13 23:33	1
Carbon tetrachloride	ND		0.10		ug/L			11/27/13 23:33	1
Trichloroethene	ND		0.10		ug/L			11/27/13 23:33	1
1,2-Dichloropropane	ND		0.10		ug/L			11/27/13 23:33	1
Dichlorobromomethane	ND		0.10		ug/L			11/27/13 23:33	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 23:33	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 23:33	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/27/13 23:33	1
Tetrachloroethene	ND		0.10		ug/L			11/27/13 23:33	1
Chlorodibromomethane	ND		0.10		ug/L			11/27/13 23:33	1
Chlorobenzene	ND		0.10		ug/L			11/27/13 23:33	1
Bromoform	ND		0.10		ug/L			11/27/13 23:33	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/27/13 23:33	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:33	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:33	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/27/13 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 120		11/27/13 23:33	1
Ethylbenzene-d10	93		75 - 125		11/27/13 23:33	1
Fluorobenzene (Surr)	101		70 - 130		11/27/13 23:33	1
Toluene-d8 (Surr)	98		75 - 125		11/27/13 23:33	1
Trifluorotoluene (Surr)	98		80 - 125		11/27/13 23:33	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/24/13 00:59	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: DW

Date Collected: 11/14/13 16:20

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150					11/24/13 00:59	1
Trifluorotoluene (Surr)	105		50 - 150					11/24/13 00:59	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		11/27/13 09:32	12/02/13 10:20	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		11/27/13 09:32	12/02/13 10:20	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150				11/27/13 09:32	12/02/13 10:20	1

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: DWD

Date Collected: 11/14/13 16:30

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/26/13 20:57	1
EDC	ND		0.10		ug/L			11/26/13 20:57	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/26/13 20:57	1
Ethylbenzene	ND		0.10		ug/L			11/26/13 20:57	1
MTBE	ND		0.10		ug/L			11/26/13 20:57	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/26/13 20:57	1
Naphthalene	ND		0.40		ug/L			11/26/13 20:57	1
o-Xylene	ND		0.10		ug/L			11/26/13 20:57	1
TAME	ND		0.50		ug/L			11/26/13 20:57	1
TBA	ND		10		ug/L			11/26/13 20:57	1
Toluene	ND		0.10		ug/L			11/26/13 20:57	1
Chloromethane	ND		0.10		ug/L			11/26/13 20:57	1
Vinyl chloride	ND		0.020		ug/L			11/26/13 20:57	1
Bromomethane	ND		0.10		ug/L			11/26/13 20:57	1
Chloroethane	ND		0.25		ug/L			11/26/13 20:57	1
Trichlorofluoromethane	ND		0.10		ug/L			11/26/13 20:57	1
1,1-Dichloroethene	ND		0.10		ug/L			11/26/13 20:57	1
Methylene Chloride	ND		0.50		ug/L			11/26/13 20:57	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 20:57	1
1,1-Dichloroethane	ND		0.10		ug/L			11/26/13 20:57	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 20:57	1
Chloroform	ND		0.10		ug/L			11/26/13 20:57	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/26/13 20:57	1
Carbon tetrachloride	ND		0.10		ug/L			11/26/13 20:57	1
Trichloroethene	ND		0.10		ug/L			11/26/13 20:57	1
1,2-Dichloropropane	ND		0.10		ug/L			11/26/13 20:57	1
Dichlorobromomethane	ND		0.10		ug/L			11/26/13 20:57	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 20:57	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 20:57	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/26/13 20:57	1
Tetrachloroethene	ND		0.10		ug/L			11/26/13 20:57	1
Chlorodibromomethane	ND		0.10		ug/L			11/26/13 20:57	1
Chlorobenzene	ND		0.10		ug/L			11/26/13 20:57	1
Bromoform	ND		0.10		ug/L			11/26/13 20:57	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/26/13 20:57	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/26/13 20:57	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/26/13 20:57	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/26/13 20:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 120		11/26/13 20:57	1
Ethylbenzene-d10	92		75 - 125		11/26/13 20:57	1
Fluorobenzene (Surr)	97		70 - 130		11/26/13 20:57	1
Toluene-d8 (Surr)	97		75 - 125		11/26/13 20:57	1
Trifluorotoluene (Surr)	100		80 - 125		11/26/13 20:57	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/22/13 01:35	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: DWD

Date Collected: 11/14/13 16:30

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-7

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150					11/22/13 01:35	1
Trifluorotoluene (Surr)	89		50 - 150					11/22/13 01:35	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		11/27/13 09:32	12/02/13 10:35	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		11/27/13 09:32	12/02/13 10:35	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150				11/27/13 09:32	12/02/13 10:35	1

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-149922/6

Matrix: Water

Analysis Batch: 149922

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/26/13 14:15	1
EDC	ND		0.10		ug/L			11/26/13 14:15	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/26/13 14:15	1
Ethylbenzene	ND		0.10		ug/L			11/26/13 14:15	1
MTBE	ND		0.10		ug/L			11/26/13 14:15	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/26/13 14:15	1
Naphthalene	ND		0.40		ug/L			11/26/13 14:15	1
o-Xylene	ND		0.10		ug/L			11/26/13 14:15	1
TAME	ND		0.50		ug/L			11/26/13 14:15	1
TBA	ND		10		ug/L			11/26/13 14:15	1
Toluene	ND		0.10		ug/L			11/26/13 14:15	1
Chloromethane	ND		0.10		ug/L			11/26/13 14:15	1
Vinyl chloride	ND		0.020		ug/L			11/26/13 14:15	1
Bromomethane	ND		0.10		ug/L			11/26/13 14:15	1
Chloroethane	ND		0.25		ug/L			11/26/13 14:15	1
Trichlorofluoromethane	ND		0.10		ug/L			11/26/13 14:15	1
1,1-Dichloroethene	ND		0.10		ug/L			11/26/13 14:15	1
Methylene Chloride	ND		0.50		ug/L			11/26/13 14:15	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 14:15	1
1,1-Dichloroethane	ND		0.10		ug/L			11/26/13 14:15	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/26/13 14:15	1
Chloroform	ND		0.10		ug/L			11/26/13 14:15	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/26/13 14:15	1
Carbon tetrachloride	ND		0.10		ug/L			11/26/13 14:15	1
Trichloroethene	ND		0.10		ug/L			11/26/13 14:15	1
1,2-Dichloropropane	ND		0.10		ug/L			11/26/13 14:15	1
Dichlorobromomethane	ND		0.10		ug/L			11/26/13 14:15	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 14:15	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/26/13 14:15	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/26/13 14:15	1
Tetrachloroethene	ND		0.10		ug/L			11/26/13 14:15	1
Chlorodibromomethane	ND		0.10		ug/L			11/26/13 14:15	1
Chlorobenzene	ND		0.10		ug/L			11/26/13 14:15	1
Bromoform	ND		0.10		ug/L			11/26/13 14:15	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/26/13 14:15	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/26/13 14:15	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/26/13 14:15	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/26/13 14:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 120		11/26/13 14:15	1
Ethylbenzene-d10	94		75 - 125		11/26/13 14:15	1
Fluorobenzene (Surr)	102		70 - 130		11/26/13 14:15	1
Toluene-d8 (Surr)	98		75 - 125		11/26/13 14:15	1
Trifluorotoluene (Surr)	103		80 - 125		11/26/13 14:15	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-149922/7

Matrix: Water

Analysis Batch: 149922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	5.56		ug/L		111	80 - 120
EDC	5.00	5.51		ug/L		110	80 - 140
Ethylbenzene	5.00	5.26		ug/L		105	80 - 125
MTBE	5.00	5.24		ug/L		105	75 - 120
m-Xylene & p-Xylene	5.00	5.11		ug/L		102	80 - 130
Naphthalene	5.00	4.28		ug/L		86	45 - 130
o-Xylene	5.00	5.39		ug/L		108	80 - 120
Toluene	5.00	5.36		ug/L		107	80 - 120
Chloromethane	5.00	5.44		ug/L		109	50 - 140
Vinyl chloride	5.00	5.87		ug/L		117	65 - 140
Bromomethane	5.00	5.07		ug/L		101	70 - 135
Chloroethane	5.00	5.79		ug/L		116	75 - 140
Trichlorofluoromethane	5.00	5.79		ug/L		116	30 - 180
1,1-Dichloroethene	5.00	5.88		ug/L		118	70 - 150
Methylene Chloride	5.00	5.34		ug/L		107	60 - 145
trans-1,2-Dichloroethene	5.00	5.67		ug/L		113	80 - 140
1,1-Dichloroethane	5.00	5.80		ug/L		116	75 - 135
cis-1,2-Dichloroethene	5.00	5.48		ug/L		110	80 - 130
Chloroform	5.00	5.45		ug/L		109	80 - 130
1,1,1-Trichloroethane	5.00	5.59		ug/L		112	80 - 140
Carbon tetrachloride	5.00	5.26		ug/L		105	75 - 140
Trichloroethene	5.00	5.30		ug/L		106	80 - 130
1,2-Dichloropropane	5.00	5.33		ug/L		107	80 - 120
Dichlorobromomethane	5.00	5.49		ug/L		110	80 - 125
cis-1,3-Dichloropropene	5.00	5.38		ug/L		108	70 - 120
trans-1,3-Dichloropropene	5.00	5.11		ug/L		102	60 - 140
1,1,2-Trichloroethane	5.00	5.37		ug/L		107	80 - 130
Tetrachloroethene	5.00	5.31		ug/L		106	40 - 180
Chlorodibromomethane	5.00	5.09		ug/L		102	70 - 120
Chlorobenzene	5.00	4.80		ug/L		96	80 - 120
Bromoform	5.00	3.71		ug/L		74	65 - 130
1,1,2,2-Tetrachloroethane	5.00	5.34		ug/L		107	75 - 125
1,3-Dichlorobenzene	5.00	5.24		ug/L		105	80 - 120
1,4-Dichlorobenzene	5.00	5.05		ug/L		101	80 - 120
1,2-Dichlorobenzene	5.00	5.09		ug/L		102	80 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		75 - 120
Ethylbenzene-d10	101		75 - 125
Fluorobenzene (Surr)	102		70 - 130
Toluene-d8 (Surr)	101		75 - 125
Trifluorotoluene (Surr)	108		80 - 125

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-149922/8

Matrix: Water

Analysis Batch: 149922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	5.00	5.48		ug/L		110	80 - 120	1	20
EDC	5.00	5.53		ug/L		111	80 - 140	1	20
Ethylbenzene	5.00	5.34		ug/L		107	80 - 125	1	20
MTBE	5.00	5.30		ug/L		106	75 - 120	1	20
m-Xylene & p-Xylene	5.00	5.06		ug/L		101	80 - 130	1	20
Naphthalene	5.00	4.28		ug/L		86	45 - 130	0	20
o-Xylene	5.00	5.51		ug/L		110	80 - 120	2	20
Toluene	5.00	5.10		ug/L		102	80 - 120	5	20
Chloromethane	5.00	5.21		ug/L		104	50 - 140	4	20
Vinyl chloride	5.00	5.73		ug/L		115	65 - 140	2	20
Bromomethane	5.00	5.25		ug/L		105	70 - 135	3	20
Chloroethane	5.00	5.59		ug/L		112	75 - 140	3	20
Trichlorofluoromethane	5.00	5.56		ug/L		111	30 - 180	4	20
1,1-Dichloroethene	5.00	5.59		ug/L		112	70 - 150	5	20
Methylene Chloride	5.00	5.38		ug/L		108	60 - 145	1	20
trans-1,2-Dichloroethene	5.00	5.62		ug/L		112	80 - 140	1	20
1,1-Dichloroethane	5.00	5.66		ug/L		113	75 - 135	2	20
cis-1,2-Dichloroethene	5.00	5.41		ug/L		108	80 - 130	1	20
Chloroform	5.00	5.42		ug/L		108	80 - 130	1	20
1,1,1-Trichloroethane	5.00	5.63		ug/L		113	80 - 140	1	20
Carbon tetrachloride	5.00	5.10		ug/L		102	75 - 140	3	20
Trichloroethene	5.00	5.27		ug/L		105	80 - 130	1	20
1,2-Dichloropropane	5.00	5.14		ug/L		103	80 - 120	3	20
Dichlorobromomethane	5.00	5.46		ug/L		109	80 - 125	0	20
cis-1,3-Dichloropropene	5.00	5.09		ug/L		102	70 - 120	6	20
trans-1,3-Dichloropropene	5.00	5.29		ug/L		106	60 - 140	3	20
1,1,2-Trichloroethane	5.00	5.32		ug/L		106	80 - 130	1	20
Tetrachloroethene	5.00	5.21		ug/L		104	40 - 180	2	20
Chlorodibromomethane	5.00	5.12		ug/L		102	70 - 120	1	20
Chlorobenzene	5.00	4.77		ug/L		95	80 - 120	1	20
Bromoform	5.00	3.69		ug/L		74	65 - 130	1	20
1,1,2,2-Tetrachloroethane	5.00	5.31		ug/L		106	75 - 125	1	20
1,3-Dichlorobenzene	5.00	5.24		ug/L		105	80 - 120	0	20
1,4-Dichlorobenzene	5.00	5.01		ug/L		100	80 - 120	1	20
1,2-Dichlorobenzene	5.00	5.06		ug/L		101	80 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		75 - 120
Ethylbenzene-d10	99		75 - 125
Fluorobenzene (Surr)	103		70 - 130
Toluene-d8 (Surr)	101		75 - 125
Trifluorotoluene (Surr)	103		80 - 125

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-150048/6

Matrix: Water

Analysis Batch: 150048

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		ug/L			11/27/13 20:14	1
EDC	ND		0.10		ug/L			11/27/13 20:14	1
Ethyl tert-Butyl Ether (ETBE)	ND		0.50		ug/L			11/27/13 20:14	1
Ethylbenzene	ND		0.10		ug/L			11/27/13 20:14	1
MTBE	ND		0.10		ug/L			11/27/13 20:14	1
m-Xylene & p-Xylene	ND		0.20		ug/L			11/27/13 20:14	1
Naphthalene	ND		0.40		ug/L			11/27/13 20:14	1
o-Xylene	ND		0.10		ug/L			11/27/13 20:14	1
TAME	ND		0.50		ug/L			11/27/13 20:14	1
TBA	ND		10		ug/L			11/27/13 20:14	1
Toluene	ND		0.10		ug/L			11/27/13 20:14	1
Chloromethane	ND		0.10		ug/L			11/27/13 20:14	1
Vinyl chloride	ND		0.020		ug/L			11/27/13 20:14	1
Bromomethane	ND		0.10		ug/L			11/27/13 20:14	1
Chloroethane	ND		0.25		ug/L			11/27/13 20:14	1
Trichlorofluoromethane	ND		0.10		ug/L			11/27/13 20:14	1
1,1-Dichloroethene	ND		0.10		ug/L			11/27/13 20:14	1
Methylene Chloride	ND		0.50		ug/L			11/27/13 20:14	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 20:14	1
1,1-Dichloroethane	ND		0.10		ug/L			11/27/13 20:14	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/27/13 20:14	1
Chloroform	ND		0.10		ug/L			11/27/13 20:14	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/27/13 20:14	1
Carbon tetrachloride	ND		0.10		ug/L			11/27/13 20:14	1
Trichloroethene	ND		0.10		ug/L			11/27/13 20:14	1
1,2-Dichloropropane	ND		0.10		ug/L			11/27/13 20:14	1
Dichlorobromomethane	ND		0.10		ug/L			11/27/13 20:14	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 20:14	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/27/13 20:14	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/27/13 20:14	1
Tetrachloroethene	ND		0.10		ug/L			11/27/13 20:14	1
Chlorodibromomethane	ND		0.10		ug/L			11/27/13 20:14	1
Chlorobenzene	ND		0.10		ug/L			11/27/13 20:14	1
Bromoform	ND		0.10		ug/L			11/27/13 20:14	1
1,1,2,2-Tetrachloroethane	ND		0.10		ug/L			11/27/13 20:14	1
1,3-Dichlorobenzene	ND		0.20		ug/L			11/27/13 20:14	1
1,4-Dichlorobenzene	ND		0.20		ug/L			11/27/13 20:14	1
1,2-Dichlorobenzene	ND		0.20		ug/L			11/27/13 20:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 120		11/27/13 20:14	1
Ethylbenzene-d10	91		75 - 125		11/27/13 20:14	1
Fluorobenzene (Surr)	98		70 - 130		11/27/13 20:14	1
Toluene-d8 (Surr)	96		75 - 125		11/27/13 20:14	1
Trifluorotoluene (Surr)	103		80 - 125		11/27/13 20:14	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-150048/7

Matrix: Water

Analysis Batch: 150048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	5.91		ug/L		118	80 - 120
EDC	5.00	5.58		ug/L		112	80 - 140
Ethylbenzene	5.00	5.62		ug/L		112	80 - 125
MTBE	5.00	5.53		ug/L		111	75 - 120
m-Xylene & p-Xylene	5.00	5.49		ug/L		110	80 - 130
Naphthalene	5.00	4.54		ug/L		91	45 - 130
o-Xylene	5.00	5.82		ug/L		116	80 - 120
Toluene	5.00	5.70		ug/L		114	80 - 120
Chloromethane	5.00	6.24		ug/L		125	50 - 140
Vinyl chloride	5.00	6.51		ug/L		130	65 - 140
Bromomethane	5.00	6.34		ug/L		127	70 - 135
Chloroethane	5.00	6.62		ug/L		132	75 - 140
Trichlorofluoromethane	5.00	6.10		ug/L		122	30 - 180
1,1-Dichloroethene	5.00	6.14		ug/L		123	70 - 150
Methylene Chloride	5.00	5.85		ug/L		117	60 - 145
trans-1,2-Dichloroethene	5.00	6.12		ug/L		122	80 - 140
1,1-Dichloroethane	5.00	5.97		ug/L		119	75 - 135
cis-1,2-Dichloroethene	5.00	5.91		ug/L		118	80 - 130
Chloroform	5.00	5.90		ug/L		118	80 - 130
1,1,1-Trichloroethane	5.00	5.91		ug/L		118	80 - 140
Carbon tetrachloride	5.00	5.47		ug/L		109	75 - 140
Trichloroethene	5.00	5.77		ug/L		115	80 - 130
1,2-Dichloropropane	5.00	5.67		ug/L		113	80 - 120
Dichlorobromomethane	5.00	5.77		ug/L		115	80 - 125
cis-1,3-Dichloropropene	5.00	5.33		ug/L		107	70 - 120
trans-1,3-Dichloropropene	5.00	5.35		ug/L		107	60 - 140
1,1,2-Trichloroethane	5.00	5.68		ug/L		114	80 - 130
Tetrachloroethene	5.00	5.79		ug/L		116	40 - 180
Chlorodibromomethane	5.00	5.45		ug/L		109	70 - 120
Chlorobenzene	5.00	5.13		ug/L		103	80 - 120
Bromoform	5.00	3.86		ug/L		77	65 - 130
1,1,2,2-Tetrachloroethane	5.00	5.57		ug/L		111	75 - 125
1,3-Dichlorobenzene	5.00	5.51		ug/L		110	80 - 120
1,4-Dichlorobenzene	5.00	5.36		ug/L		107	80 - 120
1,2-Dichlorobenzene	5.00	5.46		ug/L		109	80 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		75 - 120
Ethylbenzene-d10	98		75 - 125
Fluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	102		75 - 125
Trifluorotoluene (Surr)	111		80 - 125

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-150048/8

Matrix: Water

Analysis Batch: 150048

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	5.00	5.72		ug/L		114	80 - 120	3	20
EDC	5.00	5.16		ug/L		103	80 - 140	8	20
Ethylbenzene	5.00	5.53		ug/L		111	80 - 125	2	20
MTBE	5.00	5.43		ug/L		109	75 - 120	2	20
m-Xylene & p-Xylene	5.00	5.32		ug/L		106	80 - 130	3	20
Naphthalene	5.00	4.61		ug/L		92	45 - 130	1	20
o-Xylene	5.00	5.70		ug/L		114	80 - 120	2	20
Toluene	5.00	5.42		ug/L		108	80 - 120	5	20
Chloromethane	5.00	6.05		ug/L		121	50 - 140	3	20
Vinyl chloride	5.00	6.38		ug/L		128	65 - 140	2	20
Bromomethane	5.00	6.44		ug/L		129	70 - 135	2	20
Chloroethane	5.00	6.30		ug/L		126	75 - 140	5	20
Trichlorofluoromethane	5.00	5.79		ug/L		116	30 - 180	5	20
1,1-Dichloroethene	5.00	6.00		ug/L		120	70 - 150	2	20
Methylene Chloride	5.00	5.76		ug/L		115	60 - 145	2	20
trans-1,2-Dichloroethene	5.00	5.84		ug/L		117	80 - 140	5	20
1,1-Dichloroethane	5.00	5.84		ug/L		117	75 - 135	2	20
cis-1,2-Dichloroethene	5.00	5.77		ug/L		115	80 - 130	2	20
Chloroform	5.00	5.56		ug/L		111	80 - 130	6	20
1,1,1-Trichloroethane	5.00	5.73		ug/L		115	80 - 140	3	20
Carbon tetrachloride	5.00	5.35		ug/L		107	75 - 140	2	20
Trichloroethene	5.00	5.52		ug/L		110	80 - 130	4	20
1,2-Dichloropropane	5.00	5.39		ug/L		108	80 - 120	5	20
Dichlorobromomethane	5.00	5.51		ug/L		110	80 - 125	5	20
cis-1,3-Dichloropropene	5.00	5.35		ug/L		107	70 - 120	1	20
trans-1,3-Dichloropropene	5.00	5.11		ug/L		102	60 - 140	5	20
1,1,2-Trichloroethane	5.00	5.55		ug/L		111	80 - 130	2	20
Tetrachloroethene	5.00	5.44		ug/L		109	40 - 180	6	20
Chlorodibromomethane	5.00	5.23		ug/L		105	70 - 120	4	20
Chlorobenzene	5.00	4.95		ug/L		99	80 - 120	3	20
Bromoform	5.00	3.96		ug/L		79	65 - 130	3	20
1,1,2,2-Tetrachloroethane	5.00	5.46		ug/L		109	75 - 125	2	20
1,3-Dichlorobenzene	5.00	5.39		ug/L		108	80 - 120	2	20
1,4-Dichlorobenzene	5.00	5.28		ug/L		106	80 - 120	2	20
1,2-Dichlorobenzene	5.00	5.32		ug/L		106	80 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		75 - 120
Ethylbenzene-d10	101		75 - 125
Fluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	100		75 - 125
Trifluorotoluene (Surr)	108		80 - 125

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-149705/5

Matrix: Water

Analysis Batch: 149705

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/21/13 15:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		50 - 150					11/21/13 15:32	1
Trifluorotoluene (Surr)	98		50 - 150					11/21/13 15:32	1

Lab Sample ID: LCS 580-149705/6

Matrix: Water

Analysis Batch: 149705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline	1.00	0.806		mg/L		81	79 - 110		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		50 - 150						
Trifluorotoluene (Surr)	95		50 - 150						

Lab Sample ID: LCSD 580-149705/7

Matrix: Water

Analysis Batch: 149705

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.847		mg/L		85	79 - 110	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		50 - 150						
Trifluorotoluene (Surr)	92		50 - 150						

Lab Sample ID: MB 580-149799/5

Matrix: Water

Analysis Batch: 149799

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			11/23/13 19:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		50 - 150					11/23/13 19:25	1
Trifluorotoluene (Surr)	109		50 - 150					11/23/13 19:25	1

Lab Sample ID: LCS 580-149799/6

Matrix: Water

Analysis Batch: 149799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline	1.00	0.933		mg/L		93	79 - 110		

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-149799/6

Matrix: Water

Analysis Batch: 149799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		50 - 150
Trifluorotoluene (Surr)	102		50 - 150

Lab Sample ID: LCSD 580-149799/7

Matrix: Water

Analysis Batch: 149799

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.934		mg/L		93	79 - 110	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		50 - 150
Trifluorotoluene (Surr)	100		50 - 150

Method: 8011 - EDB

Lab Sample ID: MB 580-149640/1-A

Matrix: Water

Analysis Batch: 149641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EDB	ND		0.010		ug/L		11/21/13 06:50	11/21/13 08:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	110		70 - 130	11/21/13 06:50	11/21/13 08:16	1

Lab Sample ID: LCS 580-149640/2-A

Matrix: Water

Analysis Batch: 149641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149640

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EDB	0.0573	0.0608		ug/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dibromopropane	124		70 - 130

Lab Sample ID: LCSD 580-149640/3-A

Matrix: Water

Analysis Batch: 149641

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149640

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EDB	0.0573	0.0627		ug/L		109	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dibromopropane	112		70 - 130

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-149998/1-A

Matrix: Water

Analysis Batch: 150077

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149998

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		11/27/13 09:32	12/02/13 08:15	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/27/13 09:32	12/02/13 08:15	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150				11/27/13 09:32	12/02/13 08:15	1

Lab Sample ID: LCS 580-149998/2-A

Matrix: Water

Analysis Batch: 150077

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	0.500	0.451		mg/L		90	70 - 140
Motor Oil (>C24-C36)	0.500	0.533		mg/L		107	66 - 125
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl	86		50 - 150				

Lab Sample ID: LCSD 580-149998/3-A

Matrix: Water

Analysis Batch: 150077

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149998

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.500	0.461		mg/L		92	70 - 140	2	27
Motor Oil (>C24-C36)	0.500	0.552		mg/L		110	66 - 125	3	27
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
o-Terphenyl	89		50 - 150						

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-150045/19-A

Matrix: Water

Analysis Batch: 150118

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 150045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 11:32	5
Manganese	ND		0.0020		mg/L		11/27/13 16:48	12/02/13 11:32	5

Lab Sample ID: LCS 580-150045/20-A

Matrix: Water

Analysis Batch: 150118

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 150045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.04		mg/L		104	80 - 120
Manganese	1.00	0.988		mg/L		99	80 - 120

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-150045/21-A

Matrix: Water

Analysis Batch: 150118

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 150045

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	1.02		mg/L		102	80 - 120	1	20
Manganese	1.00	0.975		mg/L		97	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-149583/21

Matrix: Water

Analysis Batch: 149583

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			11/19/13 12:24	1

Lab Sample ID: LCS 580-149583/22

Matrix: Water

Analysis Batch: 149583

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.80	1.88		mg/L		104	90 - 110		

Lab Sample ID: LCSD 580-149583/23

Matrix: Water

Analysis Batch: 149583

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.80	1.88		mg/L		104	90 - 110	0	15

Lab Sample ID: 580-41314-1 MS

Matrix: Water

Analysis Batch: 149583

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	21	H	18.0	39.4		mg/L		103	90 - 110		

Lab Sample ID: 580-41314-1 DU

Matrix: Water

Analysis Batch: 149583

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	21	H	21.1		mg/L		1	10

Lab Sample ID: MB 580-149585/3

Matrix: Water

Analysis Batch: 149585

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.2		mg/L			11/19/13 12:24	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 580-149585/4

Matrix: Water

Analysis Batch: 149585

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.0	12.4		mg/L		103	90 - 110

Lab Sample ID: LCSD 580-149585/5

Matrix: Water

Analysis Batch: 149585

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	12.0	12.4		mg/L		103	90 - 110	0	15

Lab Sample ID: 580-41314-1 MS

Matrix: Water

Analysis Batch: 149585

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	530		120	648	4	mg/L		100	90 - 110

Lab Sample ID: 580-41314-1 DU

Matrix: Water

Analysis Batch: 149585

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	530		534		mg/L		1	10

Method: 310.1 - Alkalinity

Lab Sample ID: 580-41314-1 DU

Matrix: Water

Analysis Batch: 149651

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	370		361		mg/L		1	17

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-149543/1

Matrix: Water

Analysis Batch: 149543

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0		mg/L			11/19/13 13:31	1

Lab Sample ID: LCS 580-149543/2

Matrix: Water

Analysis Batch: 149543

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	30.0	30.4		mg/L		101	80 - 120

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 580-41314-2 DU

Matrix: Water

Analysis Batch: 149543

Client Sample ID: MW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	12		13.6		mg/L		9	20

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-1

Date Collected: 11/13/13 15:06

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	149922	11/26/13 18:05	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149799	11/23/13 23:52	JMB	TAL SEA
Total/NA	Prep	8011			149640	11/21/13 06:50	SGH	TAL SEA
Total/NA	Analysis	8011		1	149641	11/21/13 16:42	SGH	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 09:02	EKK	TAL SEA
Total Recoverable	Prep	3005A			150045	11/27/13 16:48	PAB	TAL SEA
Total Recoverable	Analysis	6020		5	150118	12/02/13 13:19	FCW	TAL SEA
Total/NA	Analysis	SM 2540D		1	149543	11/19/13 13:31	ZF	TAL SEA
Total/NA	Analysis	300.0		10	149583	11/19/13 18:12	RSB	TAL SEA
Total/NA	Analysis	300.0		10	149585	11/19/13 18:12	RSB	TAL SEA
Total/NA	Analysis	310.1		1	149651	11/21/13 08:46	SPP	TAL SEA

Client Sample ID: MW-2

Date Collected: 11/13/13 11:52

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	149922	11/26/13 18:34	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149799	11/24/13 02:28	JMB	TAL SEA
Total/NA	Prep	8011			149640	11/21/13 06:50	SGH	TAL SEA
Total/NA	Analysis	8011		1	149641	11/21/13 17:07	SGH	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 09:18	EKK	TAL SEA
Total Recoverable	Prep	3005A			150045	11/27/13 16:48	PAB	TAL SEA
Total Recoverable	Analysis	6020		5	150118	12/02/13 13:23	FCW	TAL SEA
Total/NA	Analysis	SM 2540D		1	149543	11/19/13 13:31	ZF	TAL SEA
Total/NA	Analysis	300.0		1	149583	11/19/13 16:46	RSB	TAL SEA
Total/NA	Analysis	300.0		1	149585	11/19/13 16:46	RSB	TAL SEA
Total/NA	Analysis	310.1		1	149651	11/21/13 08:46	SPP	TAL SEA

Client Sample ID: MW-3

Date Collected: 11/13/13 13:00

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	149922	11/26/13 19:03	JMB	TAL SEA
Total/NA	Analysis	8260B	DL	50	150048	11/28/13 00:02	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx	DL	20	149799	11/24/13 04:19	JMB	TAL SEA
Total/NA	Prep	8011			149640	11/21/13 06:50	SGH	TAL SEA
Total/NA	Analysis	8011		1	149641	11/21/13 18:23	SGH	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-3

Lab Sample ID: 580-41314-3

Date Collected: 11/13/13 13:00

Matrix: Water

Date Received: 11/16/13 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C	DL		149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx	DL	10	150077	12/02/13 15:00	EKK	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 09:33	EKK	TAL SEA
Total Recoverable	Prep	3005A			150045	11/27/13 16:48	PAB	TAL SEA
Total Recoverable	Analysis	6020		5	150118	12/02/13 13:28	FCW	TAL SEA
Total/NA	Analysis	SM 2540D		1	149543	11/19/13 13:31	ZF	TAL SEA
Total/NA	Analysis	300.0		1	149583	11/19/13 17:00	RSB	TAL SEA
Total/NA	Analysis	300.0		1	149585	11/19/13 17:00	RSB	TAL SEA
Total/NA	Analysis	310.1		1	149651	11/21/13 08:46	SPP	TAL SEA

Client Sample ID: MW-4

Lab Sample ID: 580-41314-4

Date Collected: 11/13/13 14:08

Matrix: Water

Date Received: 11/16/13 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	150048	11/27/13 22:36	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149799	11/24/13 00:14	JMB	TAL SEA
Total/NA	Prep	8011			149640	11/21/13 06:50	SGH	TAL SEA
Total/NA	Analysis	8011		1	149641	11/21/13 18:49	SGH	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 09:49	EKK	TAL SEA
Total Recoverable	Prep	3005A			150045	11/27/13 16:48	PAB	TAL SEA
Total Recoverable	Analysis	6020		5	150118	12/02/13 13:33	FCW	TAL SEA
Total/NA	Analysis	SM 2540D		1	149543	11/19/13 13:31	ZF	TAL SEA
Total/NA	Analysis	300.0		1	149583	11/19/13 17:15	RSB	TAL SEA
Total/NA	Analysis	300.0		1	149585	11/19/13 17:15	RSB	TAL SEA
Total/NA	Analysis	310.1		1	149651	11/21/13 08:46	SPP	TAL SEA

Client Sample ID: MW-5

Lab Sample ID: 580-41314-5

Date Collected: 11/13/13 10:35

Matrix: Water

Date Received: 11/16/13 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	150048	11/27/13 23:05	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149799	11/24/13 00:37	JMB	TAL SEA
Total/NA	Prep	8011			149640	11/21/13 06:50	SGH	TAL SEA
Total/NA	Analysis	8011		1	149641	11/21/13 19:14	SGH	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 10:04	EKK	TAL SEA
Total Recoverable	Prep	3005A			150045	11/27/13 16:48	PAB	TAL SEA
Total Recoverable	Analysis	6020		5	150118	12/02/13 13:38	FCW	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Client Sample ID: MW-5

Date Collected: 11/13/13 10:35

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	149543	11/19/13 13:31	ZF	TAL SEA
Total/NA	Analysis	300.0		1	149583	11/19/13 17:29	RSB	TAL SEA
Total/NA	Analysis	300.0		10	149585	11/19/13 19:39	RSB	TAL SEA
Total/NA	Analysis	310.1		1	149651	11/21/13 08:46	SPP	TAL SEA

Client Sample ID: DW

Date Collected: 11/14/13 16:20

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	150048	11/27/13 23:33	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149799	11/24/13 00:59	JMB	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 10:20	EKK	TAL SEA

Client Sample ID: DWD

Date Collected: 11/14/13 16:30

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41314-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	149922	11/26/13 20:57	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149705	11/22/13 01:35	JMB	TAL SEA
Total/NA	Prep	3510C			149998	11/27/13 09:32	ALC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	150077	12/02/13 10:35	EKK	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic (13073-2)

TestAmerica Job ID: 580-41314-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-41314-1	MW-1	Water	11/13/13 15:06	11/16/13 10:15
580-41314-2	MW-2	Water	11/13/13 11:52	11/16/13 10:15
580-41314-3	MW-3	Water	11/13/13 13:00	11/16/13 10:15
580-41314-4	MW-4	Water	11/13/13 14:08	11/16/13 10:15
580-41314-5	MW-5	Water	11/13/13 10:35	11/16/13 10:15
580-41314-6	DW	Water	11/14/13 16:20	11/16/13 10:15
580-41314-7	DWD	Water	11/14/13 16:30	11/16/13 10:15

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Inc.
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Short Hold

Chain of
Custody Record

12/3/2013

Client

Tecny Graphics

Client Contact

Mike Poeschl

Date

11/3/13

Chain of Custody Number

19310

Address

3501 W. Elder St.

Telephone Number (Area Code)/Fax Number

(206) 336-7080

Lab Number

41314

Page

1 of 1

City

Boise

State

ID 83705

Zip Code

83705

Lab Contact

Richter

Project Name and Location (State)

Pet Health Clinic / WA

Billing Contact

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. and Location/Description
(Containers for each sample may be combined on one line)

Date

Time

Air

Aqueous

Sed.

Soil

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Containers & Preservatives

Special Instructions/
Conditions of Receipt



580 41314 Chain of Custody

Cooler/TB DigIR cor 0.8 unc 0.7
Cooler Dsc 0.1 white @ Lab
Wet/Packs Packing bubble
WCS. FedEx Sat.

Cooler/TB DigIR cor 0.4 unc 0.3
Cooler Dsc 0.1 white @ Lab
Wet/Packs Packing bubble
WCS. FedEx Sat.

Cooler/TB DigIR cor 3.0 unc 2.9
Cooler Dsc 0.1 white @ Lab
Wet/Packs Packing bubble
WCS. FedEx Sat.

Cooler

☒ Yes ☐ No

Cooler Temp. _____

Possible Hazard Identification

☒ Non-Hazard

☐ Flammable

☐ Skin Irritant

☐ Poison B

☐ Unknown

☐ Return to Client

☒ Disposal By Lab

Archive For _____

Months _____

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)

☐ 24 Hours

☐ 48 Hours

☐ 5 Days

☐ 10 Days

☐ 15 Days

☒ Other

Standard

QC Requirements (Specify)

1. Relinquished By Sign/Print

2. Relinquished By Sign/Print

3. Relinquished By Sign/Print

11/5/13

11/5/13

11/5/13

0900

0900

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0900

0900

Comments

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

Login Sample Receipt Checklist

Client: TerraGraphics Inc

Job Number: 580-41314-1

Login Number: 41314

List Source: TestAmerica Seattle

List Number: 1

Creator: McDaniel, Ronald T

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-41301-1

Client Project/Site: Pet Health Clinic Sunnyside, WA

For:

TerraGraphics Inc
dba TerraGraphics Environmental Eng Inc
121 South Jackson
Moscow, Idaho 83843

Attn: Mike Procsal



Authorized for release by:
12/6/2013 12:22:17 PM

Pam Johnson, Project Manager I
(253)922-2310 x112
pamr.johnson@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Job ID: 580-41301-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 11/16/2013 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

Except:

The following samples BH-10 6' (580-41301-4), BH-11 5' (580-41301-5), BH-12 6' (580-41301-6), BH-13 6' (580-41301-7), BH-14 6' (580-41301-8), BH-14D 6' (580-41301-9), BH-7 8' (580-41301-1), BH-8 6' (580-41301-2), BH-9 5' (580-41301-3), Trip Blank (580-41301-10) were received outside of holding time. The stir bar vials were received out of hold. Stir bars were placed in the freezer upon receipt. Containers have been logged in and assigned analysis.

GC/MS VOA - Method 8260B

In analytical batch 149634, the following samples BH-7 8' (580-41301-1), BH-8 6' (580-41301-2), BH-9 5' (580-41301-3), BH-10 6' (580-41301-4), BH-11 5' (580-41301-5), BH-12 6' (580-41301-6), BH-13 6' (580-41301-7) and Trip Blank (580-41301-10) were received outside the 48 hour holding time. The data have been qualified "H" and reported.

The following samples BH-14 6' (580-41301-8), BH-14D 6' (580-41301-9) were diluted due to the nature of the sample matrix. Elevated reporting limits (RLs) are provided.

In analytical batch 149634 the trip blank (580-41301-10) associated with these samples contained a detection above the reporting limit (RL), for m-Xylene & p-Xylene and Ethylbenzene.

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 149751 recovered outside control limits for the following analytes: 2-methyl-2-Propanol. Individual recoveries within limits. The data have been qualified "*" and reported.

The laboratory control sample dup(LCSD) for batch 149751 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The data have been qualified "*" and reported.

The continuing calibration verification (CCV) for 2-Methyl-2-Propanol (TBA) associated with analytical batch 149751 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been qualified "^" and reported.

The continuing calibration verification (CCV) for Bromomethane associated with analytical batch 149634 recovered above the upper control limit. The NaN result is due to response beyond the calibration limit of the instrument. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been qualified "^" and reported.

GC/MS VOA - Method 5035:

The following samples BH-7 8' (580-41301-1) and BH-8 6' (580-41301-2) were recieved without a recorded tare weight. After analysis, the sample container was emptied, cleaned, and refilled with 10 mL of MeOH to record the tare weight for calculation of the final results.

No other analytical or quality issues were noted.

GC Semi VOA - Method NWTPH-Dx

In analytical batch 149805, for the following samples BH-10 6' (580-41301-4), BH-12 6' (580-41301-6) from preparation batch 149733, the results in the #2 Diesel Fuel (C10-C24) range are due primarily to heavily degraded diesel fuel.

In analytical batch 149805, for the following samples BH-14 6' (580-41301-8), BH-14D 6' (580-41301-9) from preparation batch 149733, the results in the #2 Diesel Fuel (C10-C24) range are due to a complex mixture of a gasoline/kerosene range product and heavily degraded diesel fuel.

The affected analyte range has been qualified "Y" and reported.

No other analytical or quality issues were noted.

Case Narrative

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Job ID: 580-41301-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

Metals

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Definitions/Glossary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
*	LCS or LCSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-7 8'

Date Collected: 11/11/13 13:48

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-1

Matrix: Solid

Percent Solids: 75.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
EDB	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
EDC	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Ethylbenzene	1.6	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
MTBE	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
m-Xylene & p-Xylene	5.4	H	2.4		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Naphthalene	ND	H	6.0		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
o-Xylene	1.8	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
TAME	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
TBA	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Toluene	ND	H	2.4		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,1,1-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
cis-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Bromoform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Tetrachloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,1-Dichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,2-Dichloropropane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,1,2-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Methylene Chloride	ND	H	18		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Chloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Bromomethane	ND	H ^	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Dibromochloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Chlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,3-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
trans-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,1,2,2-Tetrachloroethane	ND	H	2.4		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Chloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,1-Dichloroethene	ND	H	6.0		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,2-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Trichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Trichlorofluoromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
trans-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
cis-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Chloroform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Vinyl chloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Carbon tetrachloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
1,4-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1
Bromodichloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 21:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	11/18/13 18:50	11/20/13 21:54	1
Ethylbenzene-d10	106		70 - 120	11/18/13 18:50	11/20/13 21:54	1
Fluorobenzene (Surr)	101		80 - 120	11/18/13 18:50	11/20/13 21:54	1
Toluene-d8 (Surr)	98		80 - 120	11/18/13 18:50	11/20/13 21:54	1
Trifluorotoluene (Surr)	89		65 - 140	11/18/13 18:50	11/20/13 21:54	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		6.6		mg/Kg	☼	11/21/13 10:19	11/21/13 20:01	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-7 8'

Date Collected: 11/11/13 13:48

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-1

Matrix: Solid

Percent Solids: 75.5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		50 - 150				11/21/13 10:19	11/21/13 20:01	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	11/22/13 08:08	11/25/13 09:52	1
Motor Oil (>C24-C36)	ND		63		mg/Kg	☼	11/22/13 08:08	11/25/13 09:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				11/22/13 08:08	11/25/13 09:52	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.1		0.20		mg/Kg	☼	11/27/13 12:29	12/02/13 20:09	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	76		0.10		%	—		11/20/13 09:11	1
Percent Moisture	24		0.10		%	—		11/20/13 09:11	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-8 6'

Lab Sample ID: 580-41301-2

Date Collected: 11/11/13 14:15

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 75.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
EDB	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
EDC	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Ethylbenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
MTBE	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
m-Xylene & p-Xylene	2.5	H	2.3		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Naphthalene	ND	H	5.8		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
o-Xylene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
TAME	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
TBA	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Toluene	ND	H	2.3		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,1,1-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
cis-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Bromoform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Tetrachloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,1-Dichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,2-Dichloropropane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,1,2-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Methylene Chloride	ND	H	18		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Chloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Bromomethane	ND	H ^	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Dibromochloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Chlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,3-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
trans-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,1,2,2-Tetrachloroethane	ND	H	2.3		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Chloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,1-Dichloroethene	ND	H	5.8		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,2-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Trichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Trichlorofluoromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
trans-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
cis-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Chloroform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Vinyl chloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Carbon tetrachloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
1,4-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1
Bromodichloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/20/13 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	11/18/13 18:50	11/20/13 22:23	1
Ethylbenzene-d10	101		70 - 120	11/18/13 18:50	11/20/13 22:23	1
Fluorobenzene (Surr)	101		80 - 120	11/18/13 18:50	11/20/13 22:23	1
Toluene-d8 (Surr)	99		80 - 120	11/18/13 18:50	11/20/13 22:23	1
Trifluorotoluene (Surr)	76		65 - 140	11/18/13 18:50	11/20/13 22:23	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		6.7		mg/Kg	☼	11/21/13 10:19	11/21/13 20:23	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-8 6'

Date Collected: 11/11/13 14:15

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-2

Matrix: Solid

Percent Solids: 75.0

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		50 - 150				11/21/13 10:19	11/21/13 20:23	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	11/22/13 08:08	11/25/13 10:27	1
Motor Oil (>C24-C36)	ND		66		mg/Kg	☼	11/22/13 08:08	11/25/13 10:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150				11/22/13 08:08	11/25/13 10:27	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.0		0.23		mg/Kg	☼	11/27/13 12:29	12/02/13 20:13	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			11/20/13 09:20	1
Percent Moisture	25		0.10		%			11/20/13 09:20	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-9 5'

Date Collected: 11/11/13 15:00

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-3

Matrix: Solid

Percent Solids: 78.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
EDB	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
EDC	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	11		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Ethylbenzene	1.1	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
MTBE	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
m-Xylene & p-Xylene	3.2	H	2.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Naphthalene	ND	H	5.4		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
o-Xylene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
TAME	ND	H	11		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
TBA	ND	H	11		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Toluene	ND	H	2.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,1,1-Trichloroethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
cis-1,3-Dichloropropene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Bromoform	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Tetrachloroethene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,1-Dichloroethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,2-Dichloropropane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,1,2-Trichloroethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Methylene Chloride	ND	H	16		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Chloromethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Bromomethane	ND	H ^	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Dibromochloromethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Chlorobenzene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,3-Dichlorobenzene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
trans-1,2-Dichloroethene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,1,2,2-Tetrachloroethane	ND	H	2.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Chloroethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,1-Dichloroethene	ND	H	5.4		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,2-Dichlorobenzene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Trichloroethene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Trichlorofluoromethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
trans-1,3-Dichloropropene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
cis-1,2-Dichloroethene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Chloroform	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Vinyl chloride	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Carbon tetrachloride	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
1,4-Dichlorobenzene	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1
Bromodichloromethane	ND	H	1.1		ug/Kg	☼	11/18/13 18:50	11/20/13 22:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 120	11/18/13 18:50	11/20/13 22:52	1
Ethylbenzene-d10	106		70 - 120	11/18/13 18:50	11/20/13 22:52	1
Fluorobenzene (Surr)	97		80 - 120	11/18/13 18:50	11/20/13 22:52	1
Toluene-d8 (Surr)	97		80 - 120	11/18/13 18:50	11/20/13 22:52	1
Trifluorotoluene (Surr)	85		65 - 140	11/18/13 18:50	11/20/13 22:52	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		5.6		mg/Kg	☼	11/21/13 10:19	11/21/13 20:45	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-9 5'

Date Collected: 11/11/13 15:00

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-3

Matrix: Solid

Percent Solids: 78.8

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		50 - 150				11/21/13 10:19	11/21/13 20:45	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	11/22/13 08:08	11/25/13 10:45	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	11/22/13 08:08	11/25/13 10:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				11/22/13 08:08	11/25/13 10:45	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.2		0.18		mg/Kg	☼	11/27/13 12:29	12/02/13 20:18	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			11/20/13 09:20	1
Percent Moisture	21		0.10		%			11/20/13 09:20	1

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-10 6'

Lab Sample ID: 580-41301-4

Date Collected: 11/11/13 15:20

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 74.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
EDB	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
EDC	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	9.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Ethylbenzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
MTBE	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
m-Xylene & p-Xylene	ND	H	1.9		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Naphthalene	ND	H	4.8		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
o-Xylene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
TAME	ND	H	9.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
TBA	ND	H	9.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Toluene	ND	H	1.9		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,1,1-Trichloroethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
cis-1,3-Dichloropropene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Bromoform	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Tetrachloroethene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,1-Dichloroethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,2-Dichloropropane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,1,2-Trichloroethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Methylene Chloride	ND	H	14		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Chloromethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Bromomethane	ND	H ^	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Dibromochloromethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Chlorobenzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,3-Dichlorobenzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
trans-1,2-Dichloroethene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,1,2,2-Tetrachloroethane	ND	H	1.9		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Chloroethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,1-Dichloroethene	ND	H	4.8		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,2-Dichlorobenzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Trichloroethene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Trichlorofluoromethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
trans-1,3-Dichloropropene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
cis-1,2-Dichloroethene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Chloroform	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Vinyl chloride	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Carbon tetrachloride	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
1,4-Dichlorobenzene	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1
Bromodichloromethane	ND	H	0.95		ug/Kg	☼	11/18/13 18:50	11/20/13 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 120	11/18/13 18:50	11/20/13 23:21	1
Ethylbenzene-d10	107		70 - 120	11/18/13 18:50	11/20/13 23:21	1
Fluorobenzene (Surr)	97		80 - 120	11/18/13 18:50	11/20/13 23:21	1
Toluene-d8 (Surr)	102		80 - 120	11/18/13 18:50	11/20/13 23:21	1
Trifluorotoluene (Surr)	72		65 - 140	11/18/13 18:50	11/20/13 23:21	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	23		6.3		mg/Kg	☼	11/21/13 10:19	11/21/13 21:07	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-10 6'

Date Collected: 11/11/13 15:20

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-4

Matrix: Solid

Percent Solids: 74.9

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		50 - 150				11/21/13 10:19	11/21/13 21:07	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	110	Y	32		mg/Kg	☼	11/22/13 08:08	11/25/13 11:38	1
Motor Oil (>C24-C36)	ND		65		mg/Kg	☼	11/22/13 08:08	11/25/13 11:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				11/22/13 08:08	11/25/13 11:38	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.2		0.15		mg/Kg	☼	11/27/13 12:29	12/02/13 20:23	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			11/20/13 09:20	1
Percent Moisture	25		0.10		%			11/20/13 09:20	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-11 5'

Lab Sample ID: 580-41301-5

Date Collected: 11/11/13 15:40

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 77.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
EDB	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
EDC	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	13		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Ethylbenzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
MTBE	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
m-Xylene & p-Xylene	ND	H	2.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Naphthalene	ND	H	6.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
o-Xylene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
TAME	ND	H	13		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
TBA	ND	H	13		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Toluene	ND	H	2.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,1,1-Trichloroethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
cis-1,3-Dichloropropene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Bromoform	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Tetrachloroethene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,1-Dichloroethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,2-Dichloropropane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,1,2-Trichloroethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Methylene Chloride	ND	H	19		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Chloromethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Bromomethane	ND	H ^	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Dibromochloromethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Chlorobenzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,3-Dichlorobenzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
trans-1,2-Dichloroethene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,1,2,2-Tetrachloroethane	ND	H	2.5		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Chloroethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,1-Dichloroethene	ND	H	6.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,2-Dichlorobenzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Trichloroethene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Trichlorofluoromethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
trans-1,3-Dichloropropene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
cis-1,2-Dichloroethene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Chloroform	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Vinyl chloride	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Carbon tetrachloride	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
1,4-Dichlorobenzene	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1
Bromodichloromethane	ND	H	1.3		ug/Kg	☼	11/18/13 18:50	11/20/13 23:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	11/18/13 18:50	11/20/13 23:49	1
Ethylbenzene-d10	104		70 - 120	11/18/13 18:50	11/20/13 23:49	1
Fluorobenzene (Surr)	100		80 - 120	11/18/13 18:50	11/20/13 23:49	1
Toluene-d8 (Surr)	99		80 - 120	11/18/13 18:50	11/20/13 23:49	1
Trifluorotoluene (Surr)	103		65 - 140	11/18/13 18:50	11/20/13 23:49	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		5.9		mg/Kg	☼	11/21/13 10:19	11/21/13 21:30	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-11 5'

Date Collected: 11/11/13 15:40

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-5

Matrix: Solid

Percent Solids: 77.4

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		50 - 150				11/21/13 10:19	11/21/13 21:30	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		31		mg/Kg	☼	11/22/13 08:08	11/25/13 11:56	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	11/22/13 08:08	11/25/13 11:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				11/22/13 08:08	11/25/13 11:56	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.1		0.21		mg/Kg	☼	11/27/13 12:29	12/02/13 20:28	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77		0.10		%			11/20/13 09:20	1
Percent Moisture	23		0.10		%			11/20/13 09:20	1

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-12 6'

Lab Sample ID: 580-41301-6

Date Collected: 11/11/13 16:10

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 70.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
EDB	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
EDC	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Ethylbenzene	12	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
MTBE	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
m-Xylene & p-Xylene	70	H	2.3		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Naphthalene	28	H	5.9		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
o-Xylene	34	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
TAME	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
TBA	ND	H	12		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Toluene	ND	H	2.3		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,1,1-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
cis-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Bromoform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Tetrachloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,1-Dichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,2-Dichloropropane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,1,2-Trichloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Methylene Chloride	ND	H	18		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Chloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Bromomethane	ND	H ^	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Dibromochloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Chlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,3-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
trans-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,1,2,2-Tetrachloroethane	ND	H	2.3		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Chloroethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,1-Dichloroethene	ND	H	5.9		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,2-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Trichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Trichlorofluoromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
trans-1,3-Dichloropropene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
cis-1,2-Dichloroethene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Chloroform	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Vinyl chloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Carbon tetrachloride	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
1,4-Dichlorobenzene	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1
Bromodichloromethane	ND	H	1.2		ug/Kg	☼	11/18/13 18:50	11/21/13 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 120	11/18/13 18:50	11/21/13 00:18	1
Ethylbenzene-d10	110		70 - 120	11/18/13 18:50	11/21/13 00:18	1
Fluorobenzene (Surr)	95		80 - 120	11/18/13 18:50	11/21/13 00:18	1
Toluene-d8 (Surr)	103		80 - 120	11/18/13 18:50	11/21/13 00:18	1
Trifluorotoluene (Surr)	112		65 - 140	11/18/13 18:50	11/21/13 00:18	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		87		mg/Kg	☼	11/21/13 10:19	11/21/13 21:52	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-12 6'

Lab Sample ID: 580-41301-6

Date Collected: 11/11/13 16:10

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 70.1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		50 - 150				11/21/13 10:19	11/21/13 21:52	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	420	Y	35		mg/Kg	☼	11/22/13 08:08	11/25/13 12:13	1
Motor Oil (>C24-C36)	ND		69		mg/Kg	☼	11/22/13 08:08	11/25/13 12:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150				11/22/13 08:08	11/25/13 12:13	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10		0.16		mg/Kg	☼	11/27/13 12:30	12/02/13 20:32	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	70		0.10		%			11/20/13 09:20	1
Percent Moisture	30		0.10		%			11/20/13 09:20	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-13 6'

Lab Sample ID: 580-41301-7

Date Collected: 11/11/13 16:40

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 73.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
EDB	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
EDC	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	9.1		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Ethylbenzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
MTBE	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
m-Xylene & p-Xylene	ND	H	1.8		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Naphthalene	ND	H	4.6		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
o-Xylene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
TAME	ND	H	9.1		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
TBA	ND	H	9.1		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Toluene	ND	H	1.8		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,1,1-Trichloroethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
cis-1,3-Dichloropropene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Bromoform	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Tetrachloroethene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,1-Dichloroethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,2-Dichloropropane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,1,2-Trichloroethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Methylene Chloride	ND	H	14		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Chloromethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Bromomethane	ND	H ^	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Dibromochloromethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Chlorobenzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,3-Dichlorobenzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
trans-1,2-Dichloroethene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,1,2,2-Tetrachloroethane	ND	H	1.8		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Chloroethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,1-Dichloroethene	ND	H	4.6		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,2-Dichlorobenzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Trichloroethene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Trichlorofluoromethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
trans-1,3-Dichloropropene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
cis-1,2-Dichloroethene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Chloroform	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Vinyl chloride	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Carbon tetrachloride	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
1,4-Dichlorobenzene	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1
Bromodichloromethane	ND	H	0.91		ug/Kg	☼	11/18/13 18:50	11/21/13 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 120	11/18/13 18:50	11/21/13 00:46	1
Ethylbenzene-d10	106		70 - 120	11/18/13 18:50	11/21/13 00:46	1
Fluorobenzene (Surr)	96		80 - 120	11/18/13 18:50	11/21/13 00:46	1
Toluene-d8 (Surr)	97		80 - 120	11/18/13 18:50	11/21/13 00:46	1
Trifluorotoluene (Surr)	93		65 - 140	11/18/13 18:50	11/21/13 00:46	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		6.5		mg/Kg	☼	11/21/13 10:19	11/21/13 22:14	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-13 6'

Date Collected: 11/11/13 16:40

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-7

Matrix: Solid

Percent Solids: 73.3

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		50 - 150				11/21/13 10:19	11/21/13 22:14	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		33		mg/Kg	☼	11/22/13 08:08	11/25/13 12:31	1
Motor Oil (>C24-C36)	ND		66		mg/Kg	☼	11/22/13 08:08	11/25/13 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150				11/22/13 08:08	11/25/13 12:31	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.8		0.21		mg/Kg	☼	11/27/13 12:30	12/02/13 20:37	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	73		0.10		%	—		11/20/13 09:20	1
Percent Moisture	27		0.10		%	—		11/20/13 09:20	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-14 6'

Lab Sample ID: 580-41301-8

Date Collected: 11/12/13 09:15

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 81.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,1,2,2-Tetrachloroethane	ND		160		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,1,2-Trichloroethane	ND		190		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,1-Dichloroethane	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,1-Dichloroethene	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,2-Dichlorobenzene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,2-Dichloropropane	ND		190		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,3-Dichlorobenzene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
1,4-Dichlorobenzene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Benzene	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Bromodichloromethane	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Bromoform	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Bromomethane	ND	*	2200		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Carbon tetrachloride	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Chlorobenzene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Chloroethane	ND		6300		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Chloroform	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Chloromethane	ND		6300		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
cis-1,2-Dichloroethene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
cis-1,3-Dichloropropene	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Dibromochloromethane	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
EDB	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
EDC	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Ethyl tert-Butyl Ether (ETBE)	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Ethylbenzene	23000		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Methylene Chloride	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
MTBE	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
m-Xylene & p-Xylene	88000		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Naphthalene	8700		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
o-Xylene	1900		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
TAME	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
TBA	ND	* ^	6300		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Tetrachloroethene	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Toluene	750		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
trans-1,2-Dichloroethene	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
trans-1,3-Dichloropropene	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Trichloroethene	ND		250		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Trichlorofluoromethane	ND		630		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1
Vinyl chloride	ND		130		ug/Kg	☼	11/22/13 16:57	11/22/13 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	11/22/13 16:57	11/22/13 17:44	1
Toluene-d8 (Surr)	95		80 - 120	11/22/13 16:57	11/22/13 17:44	1
Dibromofluoromethane (Surr)	102		75 - 125	11/22/13 16:57	11/22/13 17:44	1
1,2-Dichloroethane-d4 (Surr)	111		71 - 136	11/22/13 16:57	11/22/13 17:44	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	1600		27		mg/Kg	☼	11/21/13 10:19	11/21/13 22:36	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-14 6'

Lab Sample ID: 580-41301-8

Date Collected: 11/12/13 09:15

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 81.3

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		50 - 150				11/21/13 10:19	11/21/13 22:36	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	1400	Y	30		mg/Kg	☼	11/22/13 08:08	11/25/13 12:49	1
Motor Oil (>C24-C36)	ND		60		mg/Kg	☼	11/22/13 08:08	11/25/13 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150				11/22/13 08:08	11/25/13 12:49	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14		0.23		mg/Kg	☼	11/27/13 12:30	12/02/13 20:42	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81		0.10		%			11/20/13 09:20	1
Percent Moisture	19		0.10		%			11/20/13 09:20	1

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-14D 6'

Lab Sample ID: 580-41301-9

Date Collected: 11/12/13 09:20

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 76.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,1,2,2-Tetrachloroethane	ND		160		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,1,2-Trichloroethane	ND		190		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,1-Dichloroethane	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,1-Dichloroethene	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,2-Dichlorobenzene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,2-Dichloropropane	ND		190		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,3-Dichlorobenzene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
1,4-Dichlorobenzene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Benzene	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Bromodichloromethane	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Bromoform	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Bromomethane	ND	*	2200		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Carbon tetrachloride	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Chlorobenzene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Chloroethane	ND		6400		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Chloroform	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Chloromethane	ND		6400		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
cis-1,2-Dichloroethene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
cis-1,3-Dichloropropene	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Dibromochloromethane	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
EDB	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
EDC	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Ethyl tert-Butyl Ether (ETBE)	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Ethylbenzene	13000		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Methylene Chloride	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
MTBE	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
m-Xylene & p-Xylene	49000		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Naphthalene	5700		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
o-Xylene	1000		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
TAME	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
TBA	ND	* ^	6400		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Tetrachloroethene	ND		320		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Toluene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
trans-1,2-Dichloroethene	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
trans-1,3-Dichloropropene	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Trichloroethene	ND		260		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Trichlorofluoromethane	ND		640		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1
Vinyl chloride	ND		130		ug/Kg	☼	11/22/13 16:57	11/22/13 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 120	11/22/13 16:57	11/22/13 18:58	1
Toluene-d8 (Surr)	98		80 - 120	11/22/13 16:57	11/22/13 18:58	1
Dibromofluoromethane (Surr)	101		75 - 125	11/22/13 16:57	11/22/13 18:58	1
1,2-Dichloroethane-d4 (Surr)	107		71 - 136	11/22/13 16:57	11/22/13 18:58	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	870		28		mg/Kg	☼	11/21/13 10:22	11/21/13 23:43	1

TestAmerica Seattle

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-14D 6'

Lab Sample ID: 580-41301-9

Date Collected: 11/12/13 09:20

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 76.5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150				11/21/13 10:22	11/21/13 23:43	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	480	Y	31		mg/Kg	☼	11/22/13 08:08	11/25/13 13:06	1
Motor Oil (>C24-C36)	ND		62		mg/Kg	☼	11/22/13 08:08	11/25/13 13:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				11/22/13 08:08	11/25/13 13:06	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14		0.23		mg/Kg	☼	11/27/13 12:30	12/02/13 20:47	10
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77		0.10		%			11/20/13 09:20	1
Percent Moisture	23		0.10		%			11/20/13 09:20	1

Client Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-41301-10

Date Collected: 11/11/13 00:00

Matrix: Solid

Date Received: 11/16/13 10:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
EDB	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
EDC	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Ethyl tert-Butyl Ether (ETBE)	ND	H	10		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Ethylbenzene	1.1	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
MTBE	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
m-Xylene & p-Xylene	3.4	H	2.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Naphthalene	ND	H	5.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
o-Xylene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
TAME	ND	H	10		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
TBA	ND	H	10		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Toluene	ND	H	2.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,1,1-Trichloroethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
cis-1,3-Dichloropropene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Bromoform	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Tetrachloroethene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,1-Dichloroethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,2-Dichloropropane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,1,2-Trichloroethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Methylene Chloride	ND	H	15		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Chloromethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Bromomethane	ND	H ^	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Dibromochloromethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Chlorobenzene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,3-Dichlorobenzene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
trans-1,2-Dichloroethene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,1,2,2-Tetrachloroethane	ND	H	2.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Chloroethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,1-Dichloroethene	ND	H	5.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,2-Dichlorobenzene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Trichloroethene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Trichlorofluoromethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
trans-1,3-Dichloropropene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
cis-1,2-Dichloroethene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Chloroform	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Vinyl chloride	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Carbon tetrachloride	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
1,4-Dichlorobenzene	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1
Bromodichloromethane	ND	H	1.0		ug/Kg		11/18/13 18:50	11/20/13 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	11/18/13 18:50	11/20/13 21:26	1
Ethylbenzene-d10	103		70 - 120	11/18/13 18:50	11/20/13 21:26	1
Fluorobenzene (Surr)	103		80 - 120	11/18/13 18:50	11/20/13 21:26	1
Toluene-d8 (Surr)	103		80 - 120	11/18/13 18:50	11/20/13 21:26	1
Trifluorotoluene (Surr)	105		65 - 140	11/18/13 18:50	11/20/13 21:26	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-149627/1-A

Matrix: Solid

Analysis Batch: 149634

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
EDB	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
EDC	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Ethyl tert-Butyl Ether (ETBE)	ND		10		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Ethylbenzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Bromoform	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
MTBE	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,1-Dichloroethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
m-Xylene & p-Xylene	ND		2.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Naphthalene	ND		5.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,2-Dichloropropane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
o-Xylene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
TAME	ND		10		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
TBA	ND		10		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Tetrachloroethene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Toluene	ND		2.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Methylene Chloride	ND		15		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Chloromethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Bromomethane	ND	^	1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Dibromochloromethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Chlorobenzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Chloroethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,1-Dichloroethene	ND		5.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Trichloroethene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Trichlorofluoromethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Chloroform	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Vinyl chloride	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Carbon tetrachloride	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1
Bromodichloromethane	ND		1.0		ug/Kg		11/20/13 17:14	11/20/13 19:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ethylbenzene-d10	98		70 - 120	11/20/13 17:14	11/20/13 19:03	1
Fluorobenzene (Surr)	101		80 - 120	11/20/13 17:14	11/20/13 19:03	1
4-Bromofluorobenzene (Surr)	100		70 - 120	11/20/13 17:14	11/20/13 19:03	1
Toluene-d8 (Surr)	96		80 - 120	11/20/13 17:14	11/20/13 19:03	1
Trifluorotoluene (Surr)	107		65 - 140	11/20/13 17:14	11/20/13 19:03	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-149627/2-A

Matrix: Solid

Analysis Batch: 149634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	30.0	29.0		ug/Kg		97	70 - 128
1,1,1-Trichloroethane	30.0	30.0		ug/Kg		100	63 - 135
cis-1,3-Dichloropropene	30.0	30.9		ug/Kg		103	69 - 129
EDB	30.0	29.6		ug/Kg		99	69 - 126
EDC	30.0	30.1		ug/Kg		100	71 - 128
Ethyl tert-Butyl Ether (ETBE)	30.0	29.8		ug/Kg		99	75 - 122
Ethylbenzene	30.0	30.1		ug/Kg		100	78 - 126
Bromoform	30.0	26.5		ug/Kg		88	50 - 124
MTBE	30.0	29.7		ug/Kg		99	65 - 125
1,1-Dichloroethane	30.0	29.9		ug/Kg		100	70 - 128
m-Xylene & p-Xylene	30.0	29.5		ug/Kg		98	78 - 126
Naphthalene	30.0	30.3		ug/Kg		101	14 - 170
1,2-Dichloropropane	30.0	28.5		ug/Kg		95	76 - 161
o-Xylene	30.0	30.4		ug/Kg		101	77 - 127
1,1,2-Trichloroethane	30.0	29.9		ug/Kg		100	77 - 124
TAME	30.0	30.2		ug/Kg		101	65 - 118
TBA	300	296		ug/Kg		99	40 - 160
Tetrachloroethene	30.0	29.5		ug/Kg		98	56 - 150
Toluene	30.0	29.1		ug/Kg		97	75 - 126
Methylene Chloride	30.0	36.9		ug/Kg		123	57 - 146
Chloromethane	30.0	29.0		ug/Kg		97	55 - 136
Bromomethane	30.0	29.6	^	ug/Kg		99	57 - 148
Dibromochloromethane	30.0	30.6		ug/Kg		102	69 - 129
Chlorobenzene	30.0	30.4		ug/Kg		101	75 - 120
1,3-Dichlorobenzene	30.0	28.9		ug/Kg		96	79 - 119
trans-1,2-Dichloroethene	30.0	30.3		ug/Kg		101	76 - 131
1,1,2,2-Tetrachloroethane	30.0	30.5		ug/Kg		102	73 - 125
Chloroethane	30.0	30.4		ug/Kg		101	48 - 167
1,1-Dichloroethene	30.0	29.5		ug/Kg		98	70 - 133
1,2-Dichlorobenzene	30.0	29.5		ug/Kg		98	79 - 117
Trichloroethene	30.0	29.4		ug/Kg		98	83 - 124
Trichlorofluoromethane	30.0	29.3		ug/Kg		98	47 - 165
trans-1,3-Dichloropropene	30.0	28.9		ug/Kg		96	72 - 129
cis-1,2-Dichloroethene	30.0	29.9		ug/Kg		100	70 - 130
Chloroform	30.0	30.0		ug/Kg		100	78 - 125
Vinyl chloride	30.0	30.2		ug/Kg		101	67 - 131
Carbon tetrachloride	30.0	29.1		ug/Kg		97	59 - 145
1,4-Dichlorobenzene	30.0	28.6		ug/Kg		95	79 - 117
Bromodichloromethane	30.0	30.8		ug/Kg		103	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Ethylbenzene-d10	102		70 - 120
Fluorobenzene (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	102		70 - 120
Toluene-d8 (Surr)	99		80 - 120
Trifluorotoluene (Surr)	101		65 - 140

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-149627/3-A

Matrix: Solid

Analysis Batch: 149634

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149627

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	30.0	29.2		ug/Kg		97	70 - 128	1	19
1,1,1-Trichloroethane	30.0	29.2		ug/Kg		97	63 - 135	3	20
cis-1,3-Dichloropropene	30.0	31.9		ug/Kg		106	69 - 129	3	19
EDB	30.0	30.5		ug/Kg		102	69 - 126	3	21
EDC	30.0	30.2		ug/Kg		101	71 - 128	0	18
Ethyl tert-Butyl Ether (ETBE)	30.0	29.2		ug/Kg		97	75 - 122	2	30
Ethylbenzene	30.0	30.4		ug/Kg		101	78 - 126	1	23
Bromoform	30.0	26.6		ug/Kg		89	50 - 124	0	25
MTBE	30.0	29.3		ug/Kg		98	65 - 125	1	30
1,1-Dichloroethane	30.0	29.2		ug/Kg		97	70 - 128	2	21
m-Xylene & p-Xylene	30.0	30.8		ug/Kg		103	78 - 126	4	23
Naphthalene	30.0	31.9		ug/Kg		106	14 - 170	5	50
1,2-Dichloropropane	30.0	31.3		ug/Kg		104	76 - 161	9	15
o-Xylene	30.0	30.8		ug/Kg		103	77 - 127	2	22
1,1,2-Trichloroethane	30.0	30.2		ug/Kg		101	77 - 124	1	18
TAME	30.0	30.3		ug/Kg		101	65 - 118	0	30
TBA	300	290		ug/Kg		97	40 - 160	2	30
Tetrachloroethene	30.0	29.8		ug/Kg		99	56 - 150	1	27
Toluene	30.0	29.4		ug/Kg		98	75 - 126	1	19
Methylene Chloride	30.0	31.3		ug/Kg		104	57 - 146	16	21
Chloromethane	30.0	27.5		ug/Kg		92	55 - 136	5	26
Bromomethane	30.0	27.7	^	ug/Kg		92	57 - 148	6	29
Dibromochloromethane	30.0	31.3		ug/Kg		104	69 - 129	2	23
Chlorobenzene	30.0	31.0		ug/Kg		103	75 - 120	2	21
1,3-Dichlorobenzene	30.0	29.6		ug/Kg		99	79 - 119	2	17
trans-1,2-Dichloroethene	30.0	29.2		ug/Kg		97	76 - 131	4	18
1,1,2,2-Tetrachloroethane	30.0	31.0		ug/Kg		103	73 - 125	2	22
Chloroethane	30.0	27.8		ug/Kg		93	48 - 167	9	53
1,1-Dichloroethene	30.0	28.8		ug/Kg		96	70 - 133	2	23
1,2-Dichlorobenzene	30.0	30.0		ug/Kg		100	79 - 117	2	17
Trichloroethene	30.0	29.8		ug/Kg		99	83 - 124	1	17
Trichlorofluoromethane	30.0	29.0		ug/Kg		97	47 - 165	1	54
trans-1,3-Dichloropropene	30.0	29.6		ug/Kg		99	72 - 129	2	20
cis-1,2-Dichloroethene	30.0	29.2		ug/Kg		97	70 - 130	2	19
Chloroform	30.0	28.8		ug/Kg		96	78 - 125	4	17
Vinyl chloride	30.0	29.7		ug/Kg		99	67 - 131	2	22
Carbon tetrachloride	30.0	28.9		ug/Kg		96	59 - 145	1	19
1,4-Dichlorobenzene	30.0	28.9		ug/Kg		96	79 - 117	1	18
Bromodichloromethane	30.0	31.3		ug/Kg		104	58 - 133	2	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Ethylbenzene-d10	102		70 - 120
Fluorobenzene (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	100		70 - 120
Toluene-d8 (Surr)	99		80 - 120
Trifluorotoluene (Surr)	103		65 - 140

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-149754/1-A

Matrix: Solid

Analysis Batch: 149751

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149754

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,1,1-Trichloroethane	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
cis-1,3-Dichloropropene	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
EDB	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
EDC	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Ethyl tert-Butyl Ether (ETBE)	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Ethylbenzene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Bromoform	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
MTBE	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,1-Dichloroethane	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
m-Xylene & p-Xylene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Naphthalene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,2-Dichloropropane	ND		12		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
o-Xylene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,1,2-Trichloroethane	ND		12		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
TAME	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
TBA	ND	^	400		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Tetrachloroethene	ND		20		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Toluene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Methylene Chloride	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Chloromethane	ND		400		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Bromomethane	ND		140		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Dibromochloromethane	ND		20		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Chlorobenzene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,3-Dichlorobenzene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
trans-1,2-Dichloroethene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,1,2,2-Tetrachloroethane	ND		10		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Chloroethane	ND		400		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,1-Dichloroethene	ND		20		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,2-Dichlorobenzene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Trichloroethene	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Trichlorofluoromethane	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
trans-1,3-Dichloropropene	ND		16		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
cis-1,2-Dichloroethene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Chloroform	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Vinyl chloride	ND		8.0		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Carbon tetrachloride	ND		20		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
1,4-Dichlorobenzene	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1
Bromodichloromethane	ND		40		ug/Kg		11/22/13 13:29	11/22/13 14:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	11/22/13 13:29	11/22/13 14:01	1
Toluene-d8 (Surr)	97		80 - 120	11/22/13 13:29	11/22/13 14:01	1
Trifluorotoluene (Surr)	97		65 - 140	11/22/13 13:29	11/22/13 14:01	1
Dibromofluoromethane (Surr)	94		75 - 125	11/22/13 13:29	11/22/13 14:01	1
1,2-Dichloroethane-d4 (Surr)	105		71 - 136	11/22/13 13:29	11/22/13 14:01	1

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-149754/2-A

Matrix: Solid

Analysis Batch: 149751

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	800	789		ug/Kg		99	70 - 128
1,1,1-Trichloroethane	800	915		ug/Kg		114	63 - 135
cis-1,3-Dichloropropene	800	753		ug/Kg		94	69 - 129
EDB	800	741		ug/Kg		93	69 - 126
EDC	800	787		ug/Kg		98	71 - 128
Ethyl tert-Butyl Ether (ETBE)	800	755		ug/Kg		94	75 - 122
Ethylbenzene	800	795		ug/Kg		99	78 - 126
Bromoform	800	768		ug/Kg		96	50 - 124
MTBE	800	756		ug/Kg		94	65 - 125
1,1-Dichloroethane	800	797		ug/Kg		100	70 - 128
m-Xylene & p-Xylene	800	793		ug/Kg		99	78 - 126
Naphthalene	800	880		ug/Kg		110	14 - 170
1,2-Dichloropropane	800	1050		ug/Kg		131	76 - 161
o-Xylene	800	782		ug/Kg		98	77 - 127
1,1,2-Trichloroethane	800	751		ug/Kg		94	77 - 124
TAME	800	778		ug/Kg		97	65 - 118
TBA	8000	10200	^	ug/Kg		127	40 - 160
Tetrachloroethene	800	784		ug/Kg		98	56 - 150
Toluene	800	747		ug/Kg		93	75 - 126
Methylene Chloride	800	775		ug/Kg		97	57 - 146
Chloromethane	800	689		ug/Kg		86	55 - 136
Bromomethane	800	1130		ug/Kg		141	57 - 148
Dibromochloromethane	800	839		ug/Kg		105	69 - 129
Chlorobenzene	800	756		ug/Kg		95	75 - 120
1,3-Dichlorobenzene	800	736		ug/Kg		92	79 - 119
trans-1,2-Dichloroethene	800	833		ug/Kg		104	76 - 131
1,1,2,2-Tetrachloroethane	800	747		ug/Kg		93	73 - 125
Chloroethane	800	785		ug/Kg		98	48 - 167
1,1-Dichloroethene	800	805		ug/Kg		101	70 - 133
1,2-Dichlorobenzene	800	744		ug/Kg		93	79 - 117
Trichloroethene	800	827		ug/Kg		103	83 - 124
Trichlorofluoromethane	800	802		ug/Kg		100	47 - 165
trans-1,3-Dichloropropene	800	769		ug/Kg		96	72 - 129
cis-1,2-Dichloroethene	800	800		ug/Kg		100	70 - 130
Chloroform	800	810		ug/Kg		101	78 - 125
Vinyl chloride	800	733		ug/Kg		92	67 - 131
Carbon tetrachloride	800	887		ug/Kg		111	59 - 145
1,4-Dichlorobenzene	800	733		ug/Kg		92	79 - 117
Bromodichloromethane	800	732		ug/Kg		92	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 120
Toluene-d8 (Surr)	97		80 - 120
Trifluorotoluene (Surr)	90		65 - 140
Dibromofluoromethane (Surr)	107		75 - 125
1,2-Dichloroethane-d4 (Surr)	101		71 - 136

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-149754/3-A

Matrix: Solid

Analysis Batch: 149751

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149754

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	800	808		ug/Kg		101	70 - 128	2	19
1,1,1-Trichloroethane	800	918		ug/Kg		115	63 - 135	0	20
cis-1,3-Dichloropropene	800	783		ug/Kg		98	69 - 129	4	19
EDB	800	739		ug/Kg		92	69 - 126	0	21
EDC	800	789		ug/Kg		99	71 - 128	0	18
Ethyl tert-Butyl Ether (ETBE)	800	758		ug/Kg		95	75 - 122	0	30
Ethylbenzene	800	831		ug/Kg		104	78 - 126	4	23
Bromoform	800	810		ug/Kg		101	50 - 124	5	25
MTBE	800	717		ug/Kg		90	65 - 125	5	30
1,1-Dichloroethane	800	833		ug/Kg		104	70 - 128	4	21
m-Xylene & p-Xylene	800	831		ug/Kg		104	78 - 126	5	23
Naphthalene	800	860		ug/Kg		107	14 - 170	2	50
1,2-Dichloropropane	800	1090		ug/Kg		136	76 - 161	4	15
o-Xylene	800	804		ug/Kg		100	77 - 127	3	22
1,1,2-Trichloroethane	800	760		ug/Kg		95	77 - 124	1	18
TAME	800	772		ug/Kg		96	65 - 118	1	30
TBA	8000	5330	* ^	ug/Kg		67	40 - 160	63	30
Tetrachloroethene	800	797		ug/Kg		100	56 - 150	2	27
Toluene	800	772		ug/Kg		97	75 - 126	3	19
Methylene Chloride	800	788		ug/Kg		99	57 - 146	2	21
Chloromethane	800	737		ug/Kg		92	55 - 136	7	26
Bromomethane	800	1200	*	ug/Kg		150	57 - 148	6	29
Dibromochloromethane	800	893		ug/Kg		112	69 - 129	6	23
Chlorobenzene	800	792		ug/Kg		99	75 - 120	5	21
1,3-Dichlorobenzene	800	757		ug/Kg		95	79 - 119	3	17
trans-1,2-Dichloroethene	800	899		ug/Kg		112	76 - 131	8	18
1,1,2,2-Tetrachloroethane	800	721		ug/Kg		90	73 - 125	4	22
Chloroethane	800	863		ug/Kg		108	48 - 167	9	53
1,1-Dichloroethene	800	872		ug/Kg		109	70 - 133	8	23
1,2-Dichlorobenzene	800	763		ug/Kg		95	79 - 117	3	17
Trichloroethene	800	882		ug/Kg		110	83 - 124	6	17
Trichlorofluoromethane	800	1010		ug/Kg		127	47 - 165	23	54
trans-1,3-Dichloropropene	800	783		ug/Kg		98	72 - 129	2	20
cis-1,2-Dichloroethene	800	811		ug/Kg		101	70 - 130	1	19
Chloroform	800	855		ug/Kg		107	78 - 125	5	17
Vinyl chloride	800	776		ug/Kg		97	67 - 131	6	22
Carbon tetrachloride	800	967		ug/Kg		121	59 - 145	9	19
1,4-Dichlorobenzene	800	762		ug/Kg		95	79 - 117	4	18
Bromodichloromethane	800	780		ug/Kg		97	58 - 133	6	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 120
Toluene-d8 (Surr)	97		80 - 120
Trifluorotoluene (Surr)	92		65 - 140
Dibromofluoromethane (Surr)	108		75 - 125
1,2-Dichloroethane-d4 (Surr)	101		71 - 136

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-149665/1-A

Matrix: Solid

Analysis Batch: 149697

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149665

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		4.0		mg/Kg		11/21/13 10:19	11/21/13 15:34	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		50 - 150				11/21/13 10:19	11/21/13 15:34	1
Trifluorotoluene (Surr)	113		50 - 150				11/21/13 10:19	11/21/13 15:34	1

Lab Sample ID: LCS 580-149665/2-A

Matrix: Solid

Analysis Batch: 149697

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline	40.0	35.3		mg/Kg		88	68 - 120		
Surrogate	%Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		50 - 150						
Trifluorotoluene (Surr)	120		50 - 150						

Lab Sample ID: LCSD 580-149665/3-A

Matrix: Solid

Analysis Batch: 149697

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149665

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline	40.0	37.8		mg/Kg		95	68 - 120	7	25
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		50 - 150						
Trifluorotoluene (Surr)	114		50 - 150						

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-149733/1-A

Matrix: Solid

Analysis Batch: 149805

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		25		mg/Kg		11/22/13 08:08	11/25/13 08:06	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		11/22/13 08:08	11/25/13 08:06	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				11/22/13 08:08	11/25/13 08:06	1

Lab Sample ID: LCS 580-149733/2-A

Matrix: Solid

Analysis Batch: 149805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)	500	477		mg/Kg		95	70 - 125		

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-149733/2-A

Matrix: Solid

Analysis Batch: 149805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149733

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Motor Oil (>C24-C36)			500	519		mg/Kg	-	104	64 - 127		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
<i>o</i> -Terphenyl	95		50 - 150								

Lab Sample ID: LCSD 580-149733/3-A

Matrix: Solid

Analysis Batch: 149805

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149733

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)			500	488		mg/Kg		98	70 - 125	2	16
Motor Oil (>C24-C36)			500	524		mg/Kg		105	64 - 127	1	17
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
<i>o</i> -Terphenyl	93		50 - 150								

Lab Sample ID: 580-41301-1 DU

Matrix: Solid

Analysis Batch: 149805

Client Sample ID: BH-7 8'

Prep Type: Total/NA

Prep Batch: 149733

	Sample	Sample		DU	DU					RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			Limit
#2 Diesel (C10-C24)	ND			ND		mg/Kg	☼			35
Motor Oil (>C24-C36)	ND			ND		mg/Kg	☼			35
Surrogate	%Recovery	Qualifier	Limits							
<i>o</i> -Terphenyl	88		50 - 150							

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-150019/23-A

Matrix: Solid

Analysis Batch: 150147

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 150019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20		mg/Kg		11/27/13 12:30	12/02/13 19:44	10

Lab Sample ID: LCS 580-150019/24-A

Matrix: Solid

Analysis Batch: 150147

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 150019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	52.4		mg/Kg		105	80 - 120

TestAmerica Seattle

QC Sample Results

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-150019/25-A

Matrix: Solid

Analysis Batch: 150147

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 150019

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	50.0	51.3		mg/Kg		103	80 - 120	2	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-41301-5 DU

Matrix: Solid

Analysis Batch: 149584

Client Sample ID: BH-11 5'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	77		78		%		0.7	20
Percent Moisture	23		22		%		2	20

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-7 8'

Date Collected: 11/11/13 13:48

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-1

Matrix: Solid

Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 21:54	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 20:01	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 09:52	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:29	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:09	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:11	RMB	TAL SEA

Client Sample ID: BH-8 6'

Date Collected: 11/11/13 14:15

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-2

Matrix: Solid

Percent Solids: 75.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 22:23	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 20:23	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 10:27	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:29	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:13	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

Client Sample ID: BH-9 5'

Date Collected: 11/11/13 15:00

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-3

Matrix: Solid

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 22:52	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 20:45	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 10:45	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:29	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:18	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-10 6'

Lab Sample ID: 580-41301-4

Date Collected: 11/11/13 15:20

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 23:21	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 21:07	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 11:38	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:29	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:23	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

Client Sample ID: BH-11 5'

Lab Sample ID: 580-41301-5

Date Collected: 11/11/13 15:40

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 23:49	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 21:30	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 11:56	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:29	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:28	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

Client Sample ID: BH-12 6'

Lab Sample ID: 580-41301-6

Date Collected: 11/11/13 16:10

Matrix: Solid

Date Received: 11/16/13 10:15

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/21/13 00:18	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 21:52	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 12:13	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:30	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:32	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: BH-13 6'

Date Collected: 11/11/13 16:40

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-7

Matrix: Solid

Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/21/13 00:46	JMB	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 22:14	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 12:31	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:30	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:37	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

Client Sample ID: BH-14 6'

Date Collected: 11/12/13 09:15

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-8

Matrix: Solid

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149754	11/22/13 16:57	MMH	TAL SEA
Total/NA	Analysis	8260B		1	149751	11/22/13 17:44	MMH	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:19	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 22:36	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 12:49	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:30	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:42	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

Client Sample ID: BH-14D 6'

Date Collected: 11/12/13 09:20

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-9

Matrix: Solid

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149754	11/22/13 16:57	MMH	TAL SEA
Total/NA	Analysis	8260B		1	149751	11/22/13 18:58	MMH	TAL SEA
Total/NA	Prep	5035			149665	11/21/13 10:22	ERZ	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	149697	11/21/13 23:43	ERZ	TAL SEA
Total/NA	Prep	3546			149733	11/22/13 08:08	RMB	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	149805	11/25/13 13:06	EKK	TAL SEA
Total/NA	Prep	3050B			150019	11/27/13 12:30	PAB	TAL SEA
Total/NA	Analysis	6020		10	150147	12/02/13 20:47	FCW	TAL SEA
Total/NA	Analysis	D 2216		1	149584	11/20/13 09:20	RMB	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Client Sample ID: Trip Blank

Date Collected: 11/11/13 00:00

Date Received: 11/16/13 10:15

Lab Sample ID: 580-41301-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			149627	11/18/13 18:50	JMB	TAL SEA
Total/NA	Analysis	8260B		1	149634	11/20/13 21:26	JMB	TAL SEA

Laboratory References:
TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: TerraGraphics Inc
Project/Site: Pet Health Clinic Sunnyside, WA

TestAmerica Job ID: 580-41301-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-41301-1	BH-7 8'	Solid	11/11/13 13:48	11/16/13 10:15
580-41301-2	BH-8 6'	Solid	11/11/13 14:15	11/16/13 10:15
580-41301-3	BH-9 5'	Solid	11/11/13 15:00	11/16/13 10:15
580-41301-4	BH-10 6'	Solid	11/11/13 15:20	11/16/13 10:15
580-41301-5	BH-11 5'	Solid	11/11/13 15:40	11/16/13 10:15
580-41301-6	BH-12 6'	Solid	11/11/13 16:10	11/16/13 10:15
580-41301-7	BH-13 6'	Solid	11/11/13 16:40	11/16/13 10:15
580-41301-8	BH-14 6'	Solid	11/12/13 09:15	11/16/13 10:15
580-41301-9	BH-14D 6'	Solid	11/12/13 09:20	11/16/13 10:15
580-41301-10	Trip Blank	Solid	11/11/13 00:00	11/16/13 10:15

☐ Rush
☐ Short Hold

Chain of
Custody Record

Client TERRA GRAPHICS		Client Contact MIKE PROCSAL		Date 11/12/13		Chain of Custody Number 21031	
Address 3501 W ELDER ST SUITE 301		Telephone Number (Area Code)/Fax Number 208-336-7080		Lab Number		Page 1 of 1	
City BOISE		Zip Code 83705		Sampler PROCSAL		Lab Contact PAM JOHNSON	
Project Name and Location (State) PET HEALTH CLINIC SUNNYSIDE, WA		Billing Contact		Analysis (Attach list if more space is needed)		Special Instructions/ Conditions of Receipt	
Contract/Purchase Order/Quote No. PROJECT # 13073		Matrix		Containers & Preservatives			
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)		Date		Time			
BH-7 8'		11/11/13		1348		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-8 6'		11/11/13		1415		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-9 5'		11/11/13		1500		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-10 6'		11/11/13		1520		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-11 5'		11/11/13		1540		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-12 6'		11/11/13		1610		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-13 6'		11/11/13		1640		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-14 6'		11/12/13		0915		VDCs X TPH-gx X TPH-dx X LEAD X	
BH-140 6'		11/12/13		0920		VDCs X TPH-gx X TPH-dx X LEAD X	
TRIP BANK		—		—		VDCs X TPH-gx X TPH-dx X LEAD X	
Cooler		Possible Hazard Identification		Sample Disposal		Disposal By Lab	
☒ Yes ☐ No Cooler Temp: _____		☒ Non-Hazard ☐ Flammable ☐ Skin Irritant		☐ Poison B ☐ Unknown ☐ Return To Client ☐ Archive For _____ Months		(A fee may be assessed if samples are retained longer than 1 month)	
Turn Around Time Required (business days) ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other STANDARD TAT		QC Requirements (Specify)		Received By Sign/Print Rachael Bolles		Date 11/15/13	
1. Relinquished By Sign/Print Mike Procsal / MIKE PROCSAL		Time 0915		Received By Sign/Print Rachael Bolles		Date 11/15/13	
2. Relinquished By Sign/Print		Time		Received By Sign/Print		Date	
3. Relinquished By Sign/Print		Time		Received By Sign/Print		Date	
Comments							

Cooler (B) DigIR cor 0.4 unc 0.3
Cooler Desc 1 unit @ Lab
Wet/Packs Packing 1 unit
WCS
Fedex Sat



580-41301 Chain of Custody

Login Sample Receipt Checklist

Client: TerraGraphics Inc

Job Number: 580-41301-1

Login Number: 41301

List Source: TestAmerica Seattle

List Number: 1

Creator: McDaniel, Ronald T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C

Boring Logs



CLIENT Hart Crowser / Dept. of Ecology	PROJECT NAME Pet Health Clinic
PROJECT NUMBER 13073-1	PROJECT LOCATION Sunnyside, WA
DATE STARTED 11/11/13 COMPLETED 11/11/13	GROUND ELEVATION _____ HOLE SIZE 2 inches
DRILLING CONTRACTOR Pacific Soil and Water	GROUND WATER LEVELS:
DRILLING METHOD Direct Push	▽ AT TIME OF DRILLING 6.00 ft
LOGGED BY Mike Procsal CHECKED BY Chris Beard	AT END OF DRILLING ---
NOTES _____	AFTER DRILLING ---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\PET HEALTH CLINIC.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
		ML		SILT, (ML) brown, rapid dilatancy	PID = 0
			2.0		
		SM		SILTY SAND, (SM)	PID = 0
			4.0		
5		SC-SM		SILTY SAND, (SC-SM) low plasticity, rapid dilatancy, with clay	PID = 0
			5.0		
		SM		▽ SILTY SAND, (SM) 50% recovery, wet 6' to 8'	PID = 0
			7.5		
	BH-7 8' 1348	CL		CLAY, (CL) dark brown	PID = 0
10			10.0		
		ML		SANDY SILT, (ML) with clay	PID = 0
			11.0		
		SM		SILTY SAND, (SM)	PID = 0
			14.0		
15		SM		SILTY SAND, (SM) 70% sand, gray, more coarse sand	PID = 0
			15.0		

Bottom of borehole at 15.0 feet.

CLIENT Hart Crowser / Dept. of Ecology

PROJECT NAME Pet Health Clinic

PROJECT NUMBER 13073-1

PROJECT LOCATION Sunnyside, WA

DATE STARTED 11/11/13

COMPLETED 11/11/13

GROUND ELEVATION

HOLE SIZE 2 inches

DRILLING CONTRACTOR Pacific Soil and Water

GROUND WATER LEVELS:

DRILLING METHOD Direct Push

5.00 AT TIME OF DRILLING 5.00 ft

LOGGED BY Mike Procsal

CHECKED BY Chris Beard

AT END OF DRILLING

NOTES

AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
5	BH-9 5' 1500	SM		SILTY SAND, (SM) brown, dry	PID = 0
					PID = 0
					PID = 0
					PID = 0
					PID = 0
10		SM		Wet at 5' SILTY SAND, (SM) wet, low plasticity, with clay	PID = 0
					PID = 0
					PID = 0
					PID = 0
					PID = 0
		CL		Very wet, yields water after sitting	PID = 0
					PID = 0
		ML		CLAY, (CL) gray	PID = 0
					PID = 0
				SILT, (ML) 20% sand, coarse grained, hard	PID = 0
15					PID = 0
				Bottom of borehole at 15.0 feet	PID = 0

Bottom of borehole at 15.0 feet.



CLIENT	Hart Crowser / Dept. of Ecology	PROJECT NAME	Pet Health Clinic
PROJECT NUMBER	13073-1	PROJECT LOCATION	Sunnyside, WA
DATE STARTED	11/11/13	COMPLETED	11/11/13
DRILLING CONTRACTOR	Pacific Soil and Water	GROUND ELEVATION	
DRILLING METHOD	Direct Push	HOLE SIZE	2 inches
LOGGED BY	Mike Procsal	CHECKED BY	Chris Beard
NOTES			
		GROUND WATER LEVELS:	
		▽ AT TIME OF DRILLING	6.00 ft
		AT END OF DRILLING	---
		AFTER DRILLING	---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\PET HEALTH CLINIC.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
5	BH-10 6" 1520	SM		SILTY SAND, (SM) dry Moist, more clay ▽ Wet, dark gray staining from 5' to 7', sharp contact Silty sand, very wet	PID = 0 PID = 0 PID = 0 PID = 0.8 PID = 154 PID = 0.1
10					PID = 0
		CL		12.0 CLAY, (CL) gray	PID = 0
		ML		13.0 SILT, (ML) 20% sand, coarse grained, hard	PID = 0
15				15.0 Bottom of borehole at 15.0 feet.	PID = 0



CLIENT	Hart Crowser / Dept. of Ecology	PROJECT NAME	Pet Health Clinic
PROJECT NUMBER	13073-1	PROJECT LOCATION	Sunnyside, WA
DATE STARTED	11/11/13	COMPLETED	11/11/13
DRILLING CONTRACTOR	Pacific Soil and Water	GROUND ELEVATION	
DRILLING METHOD	Direct Push	HOLE SIZE	2 inches
LOGGED BY	Mike Procsal	CHECKED BY	Chris Beard
NOTES			
		GROUND WATER LEVELS:	
		▽ AT TIME OF DRILLING	5.00 ft
		AT END OF DRILLING	---
		AFTER DRILLING	---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\PET HEALTH CLINIC.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
5	BH-11 6' 1540	SM		SILTY SAND, (SM) dry ▽ Moist, more clay Wet at 5' Dark gray staining from 5' to 7', sharp contact Silty sand, very wet	PID = 0 PID = 0 PID = 0 PID = 0 PID = 0 PID = 0 PID = 0
10					
		CL		12.0 CLAY, (CL) gray	PID = 0
		ML		13.0 SILT, (ML) 20% sand, coarse grained, hard	
15				15.0 Bottom of borehole at 15.0 feet.	PID = 0



CLIENT Hart Crowser / Dept. of Ecology **PROJECT NAME** Pet Health Clinic
PROJECT NUMBER 13073-1 **PROJECT LOCATION** Sunnyside, WA
DATE STARTED 11/11/13 **COMPLETED** 11/11/13 **GROUND ELEVATION** _____ **HOLE SIZE** 2 inches
DRILLING CONTRACTOR Pacific Soil and Water **GROUND WATER LEVELS:**
DRILLING METHOD Direct Push ▽ **AT TIME OF DRILLING** 5.00 ft
LOGGED BY Mike Procsal **CHECKED BY** Chris Beard **AT END OF DRILLING** ---
NOTES _____ **AFTER DRILLING** ---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
		ML	1.0	SILT, (ML) brown, loose	PID = 0
				SILTY SAND, (SM) brown, fine grained, dry	PID = 0
					PID = 0
					PID = 0
5					
	BH-12 6' 0610			▽	PID = 21
					PID = 50
		SM			PID = 7
					PID = 2
10					PID = 1.1
					PID = 1.3
					PID = 0.1
15			15.0		
				Bottom of borehole at 15.0 feet.	PID = 6

CLIENT Hart Crowser / Dept. of Ecology

PROJECT NAME Pet Health Clinic

PROJECT NUMBER 13073-1

PROJECT LOCATION Sunnyside, WA

DATE STARTED 11/11/13

COMPLETED 11/11/13

GROUND ELEVATION

HOLE SIZE 2 inches

DRILLING CONTRACTOR Pacific Soil and Water

GROUND WATER LEVELS:

DRILLING METHOD Direct Push

5.00 AT TIME OF DRILLING 5.00 ft

LOGGED BY Mike Procsal

CHECKED BY Chris Beard

AT END OF DRILLING

NOTES

AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	BH-13 6' 1040	ML		1.0 SILT, (ML) brown, loose	PID = 0
				SILTY SAND, (SM) brown, fine grained, dry	PID = 0 PID = 0
5					PID = 0
					PID = 0
					PID = 0
10					PID = 0 PID = 0 PID = 0 PID = 0
					PID = 0
					PID = 0
					PID = 0
15				15.0	Bottom of borehole at 15.0 feet

Bottom of borehole at 15.0 feet.



TerraGraphics
Environmental Engineering, Inc.

TerraGraphics Environmental Engineering
3501 W Elder St Suite 301
Boise, ID 83705

BORING NUMBER BH-14

PAGE 1 OF 1

CLIENT	Hart Crowser / Dept. of Ecology	PROJECT NAME	Pet Health Clinic
PROJECT NUMBER	13073-1	PROJECT LOCATION	Sunnyside, WA
DATE STARTED	11/12/13	COMPLETED	11/12/13
DRILLING CONTRACTOR	Pacific Soil and Water	GROUND ELEVATION	
DRILLING METHOD	Direct Push	HOLE SIZE	2 inches
LOGGED BY	Mike Procsal	CHECKED BY	Chris Beard
NOTES			
		GROUND WATER LEVELS:	
		▽ AT TIME OF DRILLING	5.00 ft
		AT END OF DRILLING	---
		AFTER DRILLING	---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
		ML		0.5 SILT, (ML) dry, loose SILTY SAND, (SM)	PID = 0 PID = 0 PID = 0
5	BH-14 6' 0915 BH-14 D6' 0920	SM		▽ Dark staining 5' to 7'	PID = 0.1 PID = 20.3 PID = 18
10					PID = 9 PID = 0 PID = 0
15				15.0 Bottom of borehole at 15.0 feet.	PID = 0 PID = 0



TerraGraphics Environmental Engineering
3501 W Elder St Suite 301
Boise, ID 83705

WELL NUMBER BH-15/MW-4

PAGE 1 OF 1

CLIENT	Hart Crowser / Dept. of Ecology	PROJECT NAME	Pet Health Clinic
PROJECT NUMBER	13073-1	PROJECT LOCATION	Sunnyside, WA
DATE STARTED	11/12/13	COMPLETED	11/12/13
DRILLING CONTRACTOR	Pacific Soil and Water	GROUND ELEVATION	
DRILLING METHOD	Direct Push	HOLE SIZE	3.5 inches
LOGGED BY	Mike Procsal	CHECKED BY	Chris Beard
NOTES			
		GROUND WATER LEVELS:	
		▽ AT TIME OF DRILLING	6.00 ft
		AT END OF DRILLING	---
		AFTER DRILLING	---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\PET HEALTH CLINIC.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data	WELL DIAGRAM
0						
5				SILTY SAND, (SM) brown, moist	PID = 0	Flush mount monument Concrete 0' to 1'
					PID = 0	
					PID = 0	Bentonite chips 1' to 6'
					PID = 0	
				▽	PID = 0	
				More clay at 7'	PID = 0	
				NO PETROLEUM IMPACTS	PID = 0	Filter sand 4.5' to 11'
10				NO SOIL COLLECTED	PID = 0	2" prepack slotted well screen 6' to 11'
					PID = 0	
					PID = 0	
15				15.0	PID = 0	

Bottom of borehole at 15.0 feet.



CLIENT Hart Crowser / Dept. of Ecology **PROJECT NAME** Pet Health Clinic
PROJECT NUMBER 13073-1 **PROJECT LOCATION** Sunnyside, WA
DATE STARTED 11/12/13 **COMPLETED** 11/12/13 **GROUND ELEVATION** _____ **HOLE SIZE** 2 inches
DRILLING CONTRACTOR Pacific Soil and Water **GROUND WATER LEVELS:**
DRILLING METHOD Direct Push ▽ AT TIME OF DRILLING 5.00 ft
LOGGED BY Mike Procsal **CHECKED BY** Chris Beard AT END OF DRILLING ---
NOTES NO SOIL SAMPLE COLLECTED AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
				0.5' Fill, gravel	PID = 0
		SM		SILTY SAND, (SM) brown, moist, loose, rapid dilatancy	PID = 0
					PID = 0
5				5.0' Wet at 5'	PID = 0
		SM		SILTY SAND, (SM) low plasticity, rapid dilatancy, with clay	PID = 0
				More clay starting at 7'	PID = 0
		SM		Wet, very soft 7' to 12'	PID = 0
10					PID = 0
		SM		13.5' SILTY SAND, (SM) with clay, stiff at base	PID = 0
15				15.0'	PID = 0

Bottom of borehole at 15.0 feet.



CLIENT	Hart Crowser / Dept. of Ecology	PROJECT NAME	Pet Health Clinic
PROJECT NUMBER	13073-1	PROJECT LOCATION	Sunnyside, WA
DATE STARTED	11/12/13	COMPLETED	11/12/13
DRILLING CONTRACTOR	Pacific Soil and Water	GROUND ELEVATION	
DRILLING METHOD	Direct Push	HOLE SIZE	2 inches
LOGGED BY	Mike Procsal	CHECKED BY	Chris Beard
NOTES	NO SOIL SAMPLE COLLECTED		
		GROUND WATER LEVELS:	
		▽ AT TIME OF DRILLING	6.00 ft
		AT END OF DRILLING	---
		AFTER DRILLING	---

GENERAL BH / TP / WELL - GINT STD US.GDT - 12/16/13 12:05 - M:\GINT\PROJECTS\PET HEALTH CLINIC\PET HEALTH CLINIC.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
				1.0 Fill, gravel, asphalt	PID = 0
		SM		SILTY SAND, (SM) brown, moist, grades into fine sand	PID = 0
				3.3	PID = 0
		SP		POORLY GRADED SAND, (SP) brown with dark brown, fine grained, moist	PID = 0
5				6.0 ▽	PID = 0
		SM		SILTY SAND, (SM) very soft, low plasticity, rapid dilatancy, with clay	PID = 0
				10.0	PID = 0
10				More clay	PID = 0
				40% recovery 10' to 15', very soft	PID = 0
					PID = 0
					PID = 0
15				15.0	PID = 0

Bottom of borehole at 15.0 feet.

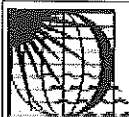


CLIENT Hart Crowser / Dept. of Ecology **PROJECT NAME** Pet Health Clinic
PROJECT NUMBER 13073-1 **PROJECT LOCATION** Sunnyside, WA
DATE STARTED 11/12/13 **COMPLETED** 11/12/13 **GROUND ELEVATION** _____ **HOLE SIZE** 3.5 inches
DRILLING CONTRACTOR Pacific Soil and Water **GROUND WATER LEVELS:**
DRILLING METHOD Direct Push ▽ **AT TIME OF DRILLING** 6.00 ft
LOGGED BY Mike Procsal **CHECKED BY** Chris Beard **AT END OF DRILLING** ---
NOTES _____ **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
5			▽	Flush mount monument Concrete 0' to 1' Bentonite chips 1' to 6' Filter sand 4.5' to 11' 2" prepack slotted well screen 6' to 11'
10				

Appendix D

Groundwater Sampling Forms



TerraGraphics
ENVIRONMENTAL ENGINEERING, INC.

Moscow
Kellogg
Boise
Spokane

GROUNDWATER SAMPLING RECORD

Project: <u>Det Health Clinic</u>	Well Number: <u>MW -1</u>
Project Number: <u>13073-8</u>	Sample Number:
Location: <u>SSS Sunnyvale, WA</u>	Weather: <u>cloudy / cold</u>
Date: <u>11/13/13</u>	Sampler(s): <u>Richter</u>

Depth to Bottom (ft):	Purge Time: <u>1450</u>
Depth to Water (ft): <u>5.77</u>	Purge Method: <u>peristaltic</u>
DTB-DTW (ft):	Volume Measurement Method: <u>Budget</u>
Volume (gal):	Purge Volume (Volume x 3) (gal):

Conversion Factors (height x factor=vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.652	8" diameter 2.611
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GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (uS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
	1452	7.36	1.614	14.055	2.16	31.0	192.2
	1456	7.24	1.636	14.182	1.77	17.8	193.3
	1500	7.25	1.507	14.279	1.38	13.5	193.9
	1504						
<u>1504</u> <u>2 gal</u>	<u>1504</u>	7.25	1.596	14.369	1.24	12.2	194.9

Sampling Date: <u>11/13/13</u>	Sampling Method: <u>peristaltic</u>	Time Sampled: <u>1506</u>
Container	Volume	Preservative
		Cooled
		Filtered
		Other

Chain of Custody: Yes/No	Duplicate Sample Number:
Chain of Custody Number:	Replicate Sample Number:

Laboratory:

Method of Shipment:

Split With:

Notes: * Ferric Iron - 0.1mg/L

Stabilization Criteria		
Temperature $\pm 0.2^{\circ}\text{C}$	pH $\pm 0.1^{\circ}$	DO $\pm 10\%$ or 0.2 mg/L
Turbidity $\pm 10\%$	SEC $\pm 3\%$	ORP $\pm 0.5\text{ mV}$



TerraGraphics
ENVIRONMENTAL ENGINEERING, INC.

Moscow
Kellogg
Boise
Spokane

GROUNDWATER SAMPLING RECORD

Project: <u>Pat Health Clinic</u>	Well Number: <u>MW-2</u>
Project Number: <u>13273-8</u>	Sample Number:
Location: <u>S.S., WA</u>	Weather: <u>cloud / cloudy / foggy</u>
Date: <u>11/13/13</u>	Sampler(s): <u>Richter</u>

Depth to Bottom (ft):	Purge Time: <u>1136</u>
Depth to Water (ft): <u>4.70</u>	Purge Method: <u>Peristaltic</u>
DTB-DTW (ft):	Volume Measurement Method: <u>Bucket</u>
Volume (gal):	Purge Volume (Volume x 3) (gal):

Conversion Factors (height x factor = vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.632	8" diameter 2.611
---	------------------------	----------------------	--------------------------	----------------------	----------------------	----------------------

GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (uS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
	1138	7.00	1.657	18.94	1.71	17.2	7.2
	1142	6.91	1.734	16.54	1.16	11.9	-48.0
	1146	6.94	1.737	16.73	0.98	10.1	-70.0
	1150	6.96	1.727	16.85	0.89	8.7	-84.2
2.991	1152	6.97	1.713	16.97	0.80	8.2	-90.2

Sampling Date: <u>11/13/13</u>	Sampling Method:	Time Sampled: <u>1152</u>
Container	Volume	Preservative
		Cooled
		Filtered
		Other

Chain of Custody: Yes/No	Duplicate Sample Number:
Chain of Custody Number:	Replicate Sample Number:
Laboratory:	
Method of Shipment:	
Split With:	

Notes: A Forssman Iron - 3.2 mg/L
A slight petro odor & sheen was noticed in the measuring bucket

Stabilization Criteria		
Temperature $\pm 0.2^{\circ}\text{C}$	pH $\pm 0.1^{\circ}$	DO $\pm 10\%$ or 0.2 mg/L
Turbidity $\pm 10\%$	SEC $\pm 3\%$	ORP $\pm 0.5\text{ mV}$



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GROUNDWATER SAMPLING RECORD

Project: <u>Pet Health</u>	Well Number: <u>MW-3</u>
Project Number: <u>12073-8</u>	Sample Number:
Location: <u>Sunnyside, WA</u>	Weather: <u>Cold / Foggy</u>
Date: <u>11/13/13</u>	Sampler(s): <u>Richter</u>

Depth to Bottom (ft):	Purge Time: <u>124.2</u>
Depth to Water (ft): <u>8.55 3.55</u>	Purge Method: <u>Peristaltic</u>
DTB-DTW (ft):	Volume Measurement Method: <u>Bucket</u>
Volume (gal):	Purge Volume (Volume x 3) (gal):

Conversion Factors (height x factor=vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.652	8" diameter 2.611
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GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (µS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
	1244	7.01	1.487	16.50	0.91	9.2	-67.1
	1248	6.89	1.483	16.388	0.58	5.9	-78.3
	1252	6.85	1.493	16.488	0.42	4.2	-84.3
	1256	6.88	1.496	16.38	0.33	3.3	-90.4
11.5 gal	1258	6.87	1.494	16.42	0.29	2.9	-90.5

Sampling Date: <u>11/13/13</u>	Sampling Method: <u>Peristaltic</u>	Time Sampled: <u>1300</u>
Container	Volume	Preservative
		Cooled
		Filtered
		Other

Chain of Custody: Yes/No	Duplicate Sample Number:
Chain of Custody Number:	Replicate Sample Number:

Laboratory:

Method of Shipment:

Split With:

Notes: * Ferric Iron - 4.5 mg/L
noticed slight petro odor & slicker in measuring
bucket.

Stabilization Criteria

Temperature ± 0.2°C	pH = ± 0.1°	DO = ± 10% or 0.2 mg/L
Turbidity = ± 10%	SEC = ± 3%	ORP = ± 0.5 mV



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GROUNDWATER SAMPLING RECORD

Project: <u>Deaf Health</u>	Well Number: <u>MW-4</u>
Project Number: <u>13023-8</u>	Sample Number:
Location: <u>Sunnyside, WA</u>	Weather: <u>Foggy Cold</u>
Date: <u>11/13/13</u>	Sampler(s): <u>Richter</u>

Depth to Bottom (ft):	Purge Time: <u>1345</u>
Depth to Water (ft): <u>5.89</u>	Purge Method: <u>Peristaltic</u>
DTB-DTW (ft):	Volume Measurement Method: <u>BackAct</u>
Volume (gal):	Purge Volume (Volume x 3) (gal):

Conversion Factors (height x factor=vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.652	8" diameter 2.611
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GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (µS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
	1348	6.91	0.008	16.44	4.36	94.7	
	1350	7.11	1.434	17.28	6.85	71.3	14.9
	1354	7.07	1.423	17.23	7.00	73.0	9.7
	1358	7.08	1.402	17.38	6.69	69.9	-3.1
	1402	7.08	1.331	17.38	6.02	62.9	-45.7
	1404	7.07	1.253	17.474	5.21	54.4	-77.1
	1406	7.06	1.176	17.515	4.62	48.3	-93.2
	1408	7.06	1.116	17.630	3.99	41.1	-102.4

Sampling Date: <u>11/13/13</u>	Sampling Method: <u>Peristaltic</u>	Time Sampled: <u>1408</u>
Container	Volume	Preservative
		Cooled
		Filtered
		Other

Chain of Custody: Yes/No	Duplicate Sample Number:
Chain of Custody Number:	Replicate Sample Number:

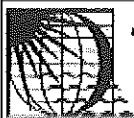
Laboratory:

Method of Shipment:

Split With:

Notes: * Ferrous Iron - 0 mg/L

Stabilization Criteria		
Temperature ± 0.2°C	pH = ± 0.1°	DO = ± 10% or 0.2 mg/L
Turbidity = ± 10%	SEC = ± 3%	ORP = ± 0.5 mV



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GROUNDWATER SAMPLING RECORD

Project: <u>Pet Health Clinic</u>	Well Number: <u>NW-5</u>
Project Number: <u>13073-8</u>	Sample Number:
Location: <u>Sunnyside, WA</u>	Weather: <u>Foggy / Cold</u>
Date: <u>11/13/13</u>	Sampler(s): <u>Richards</u>

Depth to Bottom (ft):	Purge Time: <u>0955</u>					
Depth to Water (ft): <u>5.77</u>	Purge Method: <u>Peristaltic</u>					
DTB-DTW (ft):	Volume Measurement Method: <u>Bucket</u>					
Volume (gal):	Purge Volume (Volume x 3) (gal):					
Conversion Factors (height x factor=vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.652	8" diameter 2.611

GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (µS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
	<u>1005</u>	<u>7.16</u>	<u>1.915</u>	<u>15.87</u>	<u>5.99</u>	<u>60.8</u>	<u>155.2</u>
	<u>1010</u>	<u>7.01</u>	<u>1.695</u>	<u>16.31</u>	<u>4.16</u>	<u>42.4</u>	<u>86.2</u>
	<u>1014</u>	<u>6.94</u>	<u>1.714</u>	<u>16.53</u>	<u>3.62</u>	<u>36.3</u>	<u>38.9</u>
	<u>1018</u>	<u>6.91</u>	<u>1.634</u>	<u>16.58</u>	<u>2.04</u>	<u>20.9</u>	<u>44.3</u>
	<u>1022</u>	<u>6.89</u>	<u>1.535</u>	<u>16.64</u>	<u>1.66</u>	<u>17.1</u>	<u>46.8</u>
<u>U 2.5 gal</u>	<u>1026</u>	<u>6.89</u>	<u>1.506</u>	<u>16.79</u>	<u>2.53</u>	<u>28.0</u>	<u>68.4</u>

Sampling Date: <u>11/13/13</u>	Sampling Method: <u>Peristaltic</u>	Time Sampled: <u>1035</u>
Container	Preservative	Cooled
Volume	Filtered	Other

Chain of Custody: Yes/No	Duplicate Sample Number:
Chain of Custody Number:	Replicate Sample Number:

Laboratory:

Method of Shipment:

Split With:

Notes: Purge water seemed to be extracted at same rate
under as recharge water; some bubbles were in purge water
getting dissolved oxygen. Flow set at lowest setting

* Ferrous Iron --- 0 mg/L

Stabilization Criteria

Temperature ± 0.2°C	pH = ± 0.1°	DO = ± 10% or 0.2 mg/L
Turbidity = ± 10%	SEC = ± 3%	ORP = ± 0.5 mV



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GROUNDWATER SAMPLING RECORD

Project: <u>Pet Health Clinic</u>	Well Number: <u>DW</u>
Project Number: <u>13073-8</u>	Sample Number:
Location: <u>Sunny Side, WA</u>	Weather: <u>Cold / overcast</u>
Date: <u>11/14/13</u>	Sampler(s): <u>Richter</u>

Depth to Bottom (ft):	Purge Time: <u>1602</u>
Depth to Water (ft): <u>10/21</u>	Purge Method: <u>N/A</u>
DTB-DTW (ft):	Volume Measurement Method: <u>N/A</u>
Volume (gal):	Purge Volume (Volume x 3) (gal):

Conversion Factors (height x factor=vol)	3/4" diameter 0.023	1" diameter 0.041	1 1/2" diameter 0.092	2" diameter 0.163	4" diameter 0.652	8" diameter 2.611
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GROUNDWATER DATA

Purged Volume (gal)	Time	pH	Cond (µS/cm)	Temp (°C)	Dissolved Oxygen		ORP (mV)
					mg/L	%	
<u>1605</u>	<u>1605</u>	<u>7.56</u>	<u>0.560</u>	<u>13.13</u>	<u>1.99</u>	<u>19.0</u>	<u>220.1</u>
<u>1609</u>	<u>1609</u>	<u>7.52</u>	<u>0.565</u>	<u>13.20</u>	<u>1.86</u>	<u>17.9</u>	<u>222.0</u>
<u>1613</u>	<u>1613</u>	<u>7.45</u>	<u>0.564</u>	<u>13.38</u>	<u>1.80</u>	<u>17.3</u>	<u>227.1</u>
	<u>1617</u>	<u>7.39</u>	<u>0.564</u>	<u>13.40</u>	<u>1.77</u>	<u>16.9</u>	<u>234.0</u>

Sampling Date: <u>11/14/13</u>	Sampling Method: <u>low flow peristaltic</u>	Time Sampled: <u>1630</u>
Container	Volume	Preservative
<u>VGA clear</u>	<u>40 mL</u>	<u>40 HCl</u>
<u>VGA clear</u>	<u>40 mL</u>	<u>40 HCl</u>
<u>Plastic</u>	<u>1 L</u>	<u>None</u>
<u>Plastic</u>	<u>250 mL</u>	<u>None</u>
<u>Amber</u>	<u>1 L</u>	<u>HCl</u>

Chain of Custody: Yes/No	Duplicate Sample Number: <u>DWD 1630</u>
Chain of Custody Number:	Replicate Sample Number:

Laboratory:
Method of Shipment:
Split With:

Notes:

Stabilization Criteria

Temperature ± 0.2°C	pH = ± 0.1°	DO = ± 10% or 0.2 mg/L
Turbidity = ± 10%	SEC = ± 3%	ORP = ± 0.5 mV