

Interim Remedial Action Report

Snohomish Square Cleaners Avenue D and 13th Street SE Snohomish, WA

Prepared For:

Skotdal Enterprises Inc. 2707 Colby Avenue Suite 1200 Everett, Washington 98201

August 15, 2017

Prepared By:

Environmental Partners, Inc. 1180 NW Maple Street, Suite 310 Issaquah, Washington 98027 (425) 395-0010

Josh Bernthal, PE Senior Engineer

QR (14)

TR 94

TABLE OF CONTENTS

1.0	INTR	INTRODUCTION1								
2.0	OBJE	ECTIVES	1							
3.0		ORT ORGANIZATION								
4.0		UNDWATER SAMPLING PROCEDURES								
		JARY 2016 BASELINE GROUNDWATER MONITORING								
5.0	FER									
	5.1	Groundwater Sampling	3							
	5.2	Piezometric Conditions	∠							
	5.3	Baseline Geochemical Conditions	∠							
	5.4	Analytical Results	5							
6.0	REMI	EDIAL ACTION IMPLEMENTATIONON	5							
	6.1	Injection Well Installation	5							
	6.2	Injection of Treatment Compound	6							
		6.2.1 Injection Compound	6							
		6.2.2 Injection Technique	6							
7.0	GRO	UNDWATER MONITORING – MAY 2016	7							
	7.1	Groundwater Sampling	7							
	7.2	Piezometric Conditions	7							
	7.3	Geochemical Results	7							
	7.4	Analytical Results	8							
8.0	GRO	UNDWATER MONITORING – AUGUST 2016	8							
	8.1	Groundwater Sampling	8							
	8.2	Piezometric Conditions	8							
	8.3	Geochemical Results	8							
	8.4	Analytical Results	9							
9.0	DATA	\ EVALUATION	5							
10.0	CON	CLUSIONS	10							

TABLES

Table 1	Groundwater Geochemical Analytical Data
Table 2	Additional Groundwater Analytical Data
Table 3	Field Parameters
Table 4	Substrate Injection Amounts

FIGURES

Figure 1	General Vicinity Map
Figure 2	Site representation and Approximate Injection Well Location Map
Figure 3	Groundwater Elevation Contour Map – February 2016
Figure 4	Site Representation with Monitoring Wells and Groundwater Plume – February 2016
Figure 5	Groundwater Elevation Contour Map – May 2016
Figure 6	Site Representation with Monitoring Wells and Groundwater Plume – May 2016
Figure 7	Groundwater Elevation Contour Map – August 2016
Figure 8	Site Representation with Monitoring Wells and Groundwater Plume – August 2016
Figure 9	PCE Concentrations Versus Time

ATTACHMENTS

Attachment A Analytical Results

Attachment B Boring and Well Completion Logs Attachment C Waste Disposal Documentation

ABBREVIATIONS AND ACRONYMS

Abbreviation/

Acronym	Definition
bgs	Below ground surface
COC	Contaminant of concern
CUL	Cleanup level
EPA	U.S. Environmental Protection Agency
EPI	Environmental Partners, Inc.
ERD	Enhanced reductive dechlorination
Holt	Holt Drilling Services
HSA	Hollow-stem auger
IAWP	Interim Action Work Plan
IRA	Interim remedial action
μg/L	Micrograms per liter
mg/L	Milligrams per liter
MTCA	Model Toxics Control Act
ORP	Oxidation-reduction potential
PCE	Tetrachloroethene
PDB	Passive diffusion bag
psi	Pounds per square inch
PVC	Polyvinyl chloride
Skotdal	Skotdal Enterprises, Inc.
TCE	Trichloroethylene
TOC	Total organic carbon

1.0 INTRODUCTION

Environmental Partners, Inc. (EPI) is pleased to submit this Interim Remedial Action (IRA) Report to address tetrachloroethene (PCE) impacted groundwater at the former Snohomish Square Cleaners property located at Avenue D and 13th Street SE in Snohomish, WA (subject property). Skotdal Enterprises, Inc. (Skotdal) currently owns the subject property. The location of the subject property is indicated in Figure 1.

PCE was historically released at the subject property, which has resulted in impacts to soil and groundwater. Based on Site-specific data, the sole remaining contaminant of concern (COC) is PCE in groundwater. The breakdown products of PCE include trichloroethylene (TCE), cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride. As the sequential reductive dechlorination breakdown of PCE occurs, these less chlorinated daughter products might become future COCs. The groundwater impacts have migrated downgradient (to the southwest) to a property owned by Snohomish County. The "Site," as defined by the Model Toxics Control Act (MTCA), includes portions of the subject property as well as the "upper terrace" of the downgradient property to the southwest owned by Snohomish County (Snohomish property). This Subject Property area is depicted in Figure 2.

Enhanced reductive dechlorination (ERD), which is an in situ bioaugmentation remediation technology, was selected as the remedial technology to bring the Snohomish property into regulatory compliance. A pilot study performed at the Site showed ERD to be an effective remedial strategy at the subject property in consideration of the Site-specific goals and current and future Site uses.

EPI completed an *Interim Action Work Plan* dated October 10, 2015 (IAWP) that provided the scope of services necessary to implement this IRA. The initial purpose of this IRA is to reduce PCE impacts to shallow groundwater at the subject property in order to obtain a "No Further Action" (NFA) determination for the Snohomish County property.

2.0 OBJECTIVES

The objectives of the work documented herein were as follows:

- Establish baseline groundwater conditions immediately prior to implementation of in situ ERD treatment;
- Document in situ ERD treatment;
- Perform two quarterly groundwater monitoring events and document/discuss results; and
- Provide recommendations for additional actions.

3.0 REPORT ORGANIZATION

The information presented in this IRA Report is organized as shown in the following sections:

- Section 1.0 Introduction
- Section 2.0 Objectives
- Section 3.0 Report Organization
- Section 4.0 Groundwater Sampling Procedures
- Section 5.0 February 2016 Baseline Groundwater Monitoring Event
- Section 6.0 Remedial Action Implementation
- Section 7.0 Groundwater Monitoring May 2016
- Section 8.0 Groundwater Monitoring August 2016
- Section 9.0 Data Evaluation and Recommendations
- Section 10.0 Conclusions

4.0 GROUNDWATER SAMPLING PROCEDURES

Unless otherwise noted, the groundwater sampling procedures presented in the following paragraphs were followed during each monitoring event.

Prior to sampling, the static water levels were collected to the nearest 0.01-foot using a Solinst electronic water level meter. To ensure consistency all measurements were taken on the north side of the top edge of the polyvinyl chloride (PVC) casing. EPI surveyed measuring point elevations for all monitoring wells and used those data, along with measured depth-to-water data to determine groundwater elevations, elevation contours, and flow directions at the Site.

Wells selected for groundwater sampling were purged using a peristaltic pump and low-flow purging techniques. Pump tubing was new, single-use tubing that was changed between each well. During low-flow purging, groundwater field parameters were measured and recorded approximately every three minutes for the following parameters:

- pH
- Temperature
- Oxidation-reduction potential (ORP)

- Specific conductivity
- Dissolved oxygen (DO)

Low-flow purging was continued until these field parameters met stabilization criteria for three successive readings.

After stabilization, groundwater sample containers were labeled and samples were collected into appropriate laboratory-supplied sample containers using low-flow sampling techniques to limit potential contaminant volatilization. Immediately upon collection, filled sample containers were placed in an iced cooler with an internal temperature of 4° Celsius or less for submittal to the analytical laboratory. All samples were transported under standard chain-of-custody protocols to Friedman and Bruya, Inc. (FBI) an analytical laboratory located in Seattle, Washington.

In addition to low-flow sampling, selected wells were also sampled using a passive diffusion bag (PDB). This method was tested side by side with low-flow sampling methods to determine if PDB sampling was a feasible option. PDB sampling requires less time and generates less purge water when compared to low-flow purging and sampling methods. During the baseline monitoring event described below, the PDB bags were installed in the selected wells immediately following the completion of low-flow sampling at each well. The PDBs then remained in the wells for a minimum of 2 weeks to achieve equilibrium conditions with the groundwater before being sampled.

All groundwater samples were submitted for chlorinated volatile organic compounds (cVOCs) by U.S. Environmental Protection Agency (EPA) Method 8260B. Selected groundwater samples were also analyzed for total organic carbon (TOC) by EPA Method 415.1; chemical oxygen demand (COD) by EPA Method 410.4; biological oxygen demand (BOD; 5-Day) by EPA Method 5210B; total and dissolved iron and manganese by EPA Method 6010b; chloride by EPA Method 325.1; sulfate/sulfide and nitrate/nitrite by EPA Method 300.0; and methane, ethane, and ethane, and carbon dioxide by Method RSK-175.

5.0 FEBUARY 2016 BASELINE GROUNDWATER MONITORING

5.1 Groundwater Sampling

From February 9 through February 12, 2016, EPI sampled groundwater at 24 well locations. Procedures in Section 4.0 were followed for sampling. Sixteen of the 24 wells were also sampled using a PDB to allow a comparison with data for samples collected using low-flow sampling techniques. The PDB sampling occurred on February 29, 2016.

5.2 Piezometric Conditions

Measured depth-to-water data ranged from 1.64 to 21.39 feet below top of casing. The resulting groundwater elevation data indicate that groundwater flow direction at the subject property is generally in a south-southwest direction with a horizontal hydraulic gradient of 0.02 feet/foot. Both the groundwater flow direction and the magnitude of the hydraulic gradient may be influenced to some degree by seasonal conditions. Figure 3 depicts groundwater flow directions and elevations from the February 2016 monitoring event. Depth-to-water data are presented in Table 1.

5.3 Baseline Geochemical Conditions

The *in situ* bioremediation technology used at the subject property provides nutrients to the subsurface to enhance anaerobic geochemical conditions in the aquifer. The addition of nutrients promotes the growth of specific anaerobic bacterial populations that are known to reductively dechlorinated PCE and its breakdown products. Geochemical parameters were analyzed for wells MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, GW-4, and GW-11.

The effective distribution of the injected nutrient substrate is tracked by comparing pre-treatment and post-treatment TOC concentrations. Pre-treatment TOC concentrations ranged from less than 500 micrograms per liter (μ g/L) to a maximum of 4,200 μ g/L. These are relatively low values and support that the nutrients available for natural biological processes prior to treatment were limited.

Anaerobic conditions in groundwater can be determined by measuring concentrations of iron and manganese in groundwater and using that data as a qualitative guide to the redox status. Metals analysis for iron and manganese are also used to indicate if enhanced reducing geochemical conditions have produced unacceptable metals concentrations. Field-filtered (dissolved) groundwater samples were analyzed for iron and manganese. Iron was detected in five groundwater samples ranging from 52.8 μ g/L to 202 μ g/L. Manganese was detected in all eight groundwater samples at concentrations ranging from 1.42 μ g/L to 1,990 μ g/L. These concentrations are acceptable for the use of ERD.

Sulfate and nitrate concentrations provide a measure of reducing conditions produced by substrate injection. These analyses indicate the effects of increased biological activity and provide evidence that reducing conditions are present. Evidence of reducing conditions indicates increased biological activity. Sulfate was detected in concentrations ranging from 2,260 μ g/L to 24,400 μ g/L. Nitrate was detected in concentrations ranging from 32.3 μ g/L to 17,200 μ g/L. These baseline concentrations are low and support prior conclusions that significant biological degradation of PCE was not occurring naturally. As reducing conditions are created by the substrate injections, sulfate should reduce to sulfide and nitrate should reduce to nitrogen gas or ammonia.

Geochemical analytical data for the baseline sampling are presented in Tables 1 and 2.

Field parameter data for the baseline sampling are presented in Table 3. DO ranged from 1.03 mg/L to 9.51 mg/L. ORP values ranged from 190.1 millivolts (mv) to 326.7 mv. Geochemical conditions generally are considered either aerobic (when DO concentrations are about 1 mg/L or greater) and ORP values are positive, or anaerobic (when DO concentrations are less than 1 mg/L) and ORP values are negative. Temperature, pH, and other field-measured parameters were within acceptable ranges for bioremediation to occur.

5.4 Analytical Results

PCE was detected at concentrations greater than the MTCA Method A Groundwater Cleanup Level (MTCA Method A GW CUL) of 5 μ g/L in 11 of the 24 groundwater samples, at concentrations ranging from 6.4 μ g/L to 70 μ g/L. PCE was detected in an additional six monitoring wells; however, those concentrations were less than the MTCA Method A GW CUL. Figure 4 shows the PCE groundwater concentrations and the horizontal extent of the PCE plume based on data obtained during the February 2016 baseline monitoring event. Laboratory analytical results are included in Attachment A.

6.0 REMEDIAL ACTION IMPLEMENTATIONON

6.1 Injection Well Installation

EPI contracted Holt Drilling Services (Holt) to install 12 injection wells (IJ-1 through IJ-12) and one new monitoring well (MW-15). Each well was installed using standard hollow-stem auger (HSA) drilling and well installation methods. As-built well construction details and soil boring logs are provided in Attachment B.

Holt used a full-sized truck-mounted HSA drilling rig to advance boreholes between 25 and 30 feet below ground surface (bgs). During drilling, one soil sample was collected at the mid-depth of each borehole (10 to 15 feet bgs) for waste characterization and disposal purposes.

The injection wells were constructed of 6-inch diameter, flush- threaded, schedule 40 PVC casing and screen. Monitoring well MW-15 was constructed of 4-inch diameter, flush- threaded, schedule 40 PVC casing and screen. All wells were constructed in conformance with Washington Administrative Code (WAC) 173-160, "Minimum Standards for Construction and Maintenance of Wells."

The screened intervals for IJ-1 through IJ-8 were from 15 to 30 bgs, and IJ-9 through IJ-12 were screened from 15 to 25 bgs. Well screen assemblies consisted of 0.020-inch (i.e., "20-slot"), flush-threaded, machine-slotted Schedule 40 PVC screen with a threaded end cap. A filter pack consisting of properly graded silica sand was placed in the annulus of the borehole to a depth of about 2 feet above the top of the well screen. Bentonite chips were then placed in the well annulus to a depth of about 2 feet from ground surface and were then hydrated with potable water. These wells were then completed with a concrete surface seal, a traffic-rated flush mount and a watertight locking cap.

Investigation-derived waste (IDW), including drill cuttings, decontamination fluids, and well development water were contained in large roll-off bins (solid waste) and Department of Transportation approved 55-gallon drums (water waste). Approximately 24 tons of non-regulated soil was disposed at Waste Management's Alaska Street Facility. Approximately 2,600 gallons of liquid hazardous waste listed as F002 were disposed at Waste Management's CMW Arlington, Oregon, facility. Waste Disposal Documentation is provided in Attachment C.

6.2 Injection of Treatment Compound

6.2.1 Injection Compound

As discussed in the IAWP, ERD was selected as the most readily implementable and applicable remediation technology for the Site. ERD requires the introduction of a nutrient substrate that provides a carbon source for driving geochemical conditions to be more anaerobic. The nutrient substrate also provides a hydrogen releasing compound that serves as an electron donor to enhance the ability of the natural biota to reductively dechlorinate PCE. In order for the natural reaction to be more successful, EPI selected a proprietary product called 3-D Microemulsion[®].

6.2.2 Injection Technique

3-D Microemulsion^{® injections} began on March 29, 2016 using a pressurized injection method into the three treatment areas described in the IAWP, shown on Figure 2. Potable water was mixed in a 275-gallon water tote with the two-part 3-D Microemulsion[®] solution (three parts 3-D Microemulsion[®] to one part Chemical reducer) at a ratio of 10 parts water to 1 part 3-D Microemulsion[®] mixture. The tote was then mixed until homogeneous using the circulating valve on the injection pump.

Valves and gauges located on the injection pump allowed for the operator to manage flow and document pressures within the injection wells. Flow rate was controlled by a gate valve located on the discharge side of the injection pump.

Injections were initiated on March 29 and were completed on April 13, 2016. Details of well injections are noted in Table 4, displaying dates and total volumes injected into each well. In some of the wells, leakage at the surface around the well annulus was noted and was caused by location-specific geologic conditions that limited infiltration rates. If leakage occurred at the surface, pressurized injections were stopped and gravity feed methods were used to minimize leakage at the surface. Wells that were partially gravity fed are noted in Table 4. In general, each well took approximately 42 pounds per square inch (psi) to overcome the piezometric head of the water column within the well. When the static piezometric head pressure was overcome, injection pressures dropped to 15 to 20 psi for the duration of injection. A total volume of 8,090 gallons of the nutrient substrate mixture were injected into the subsurface. Details of well injections are noted in Table 4 displaying dates and total volumes injected into each well.

Ongoing groundwater monitoring will determine if additional injections are required.

7.0 GROUNDWATER MONITORING - MAY 2016

7.1 Groundwater Sampling

EPI sampled groundwater from 25 monitoring wells from May 3 through May 6, 2016. The additional sample collected during this event was from the newly installed MW-15. Sixteen of the 24 wells were again sampled using a PDB for side-by-side comparison with low-flow sampling techniques. This represents the first post-treatment groundwater monitoring event.

7.2 Piezometric Conditions

Depth-to-water measurements in wells ranged from approximately 2.46 to 23.21 feet below top of casing. A summary of the depth-to-water measurements is provided in Table 1. Figure 5 depicts groundwater elevations and the groundwater flow direction at the subject and Snohomish County properties as measured during the May 2016 monitoring event.

Water level data collected in May 2016 indicated that groundwater flow direction at the property is generally in the south-southwest direction with a horizontal hydraulic gradient of 0.02 feet/foot. Both the groundwater direction and horizontal gradient are consistent with the baseline monitoring event.

7.3 Geochemical Results

Geochemical analytical data for this monitoring event are presented in Tables 1 and 2. Geochemical parameters were analyzed from wells MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-9, MW-15, GW-4, and GW-11.

TOC was detected in all groundwater samples, except in the sample from MW-9, at concentrations ranging from 700 μ g/L to 120,000 μ g/L. These numbers indicate an increase in TOC concentrations across the Site, particularly in source area well MW-3. This increase in TOC indicates that the substrate has reached the subsurface. The wells farther away from the injection wells did not show as much increase in TOC as the source area wells.

Iron was detected in eight groundwater samples ranging from 73.9 μ g/L to 15,700 μ g/L. Manganese was not analyzed during this monitoring event. The iron concentration in source area well MW-3 significantly increased during this monitoring event. The concentration at this monitoring well will be monitored over the upcoming monitoring events to evaluate if metals concentrations approach unacceptable levels.

Anions (i.e., sulfate and nitrate) were analyzed to provide a measure of geochemical conditions produced by substrate injection. Sulfate was detected in concentrations ranging from 6,540 μ g/L to 43,100 μ g/L. Sulfate concentrations significantly increased in source area well MW-9. Nitrate was detected in concentrations ranging from 300 μ g/L to 2,670 μ g/L. Generally, nitrate concentrations decreased during this monitoring event. The anion results indicate an overall slight increase in reducing conditions.

Field parameter data for the May sampling are presented in Table 3. DO ranged from 0.44 mg/L to 7.92 mg/L. Most of the source area wells experienced a drop in DO levels following treatment. Temperature, pH, and other parameters were within acceptable ranges for ERD to occur.

7.4 Analytical Results

PCE concentrations were detected at concentrations ranging from $5.1 \,\mu g/L$ to $140 \,\mu g/L$. Twelve of the 25 sample results were greater than the MTCA Method A GW CUL of $5 \,\mu g/L$, with the greatest concentration in the sample from the newly installed well, MW-15. PCE was detected at concentrations less than the MTCA Method A GW CUL for PCE in seven other monitoring wells.

The breakdown products of PCE include TCE, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride. TCE exceeded the MTCA Method A GW CUL of 5 μ g/L in the sample from MW-10 at a concentration of 73 μ g/L. TCE was not detected at a concentration greater than the MTCA Method A GW CUL in any other sample. Figure 6 shows the PCE groundwater concentrations and plume as identified during the May 2016 monitoring event. Analytical results are included in Attachment A.

8.0 GROUNDWATER MONITORING - AUGUST 2016

8.1 Groundwater Sampling

EPI sampled groundwater from 25 monitoring wells on August 29 and 30, 2016. Four of the 24 wells were again sampled using a PDB for comparison with low-flow purging and sampling techniques. This represents the second post-treatment groundwater monitoring event.

8.2 Piezometric Conditions

Depth-to-water measurements in wells ranged from approximately 2.71 to 23.86 feet below top of casing. A summary of the depth-to-water measurements is provided in Table 1. Figure 7 depicts groundwater elevations and the groundwater flow direction at the subject and Snohomish County properties as measured during the August 2016 monitoring event.

Water level data collected in August 2016 indicate that groundwater flow direction at the property is generally in the south-southwest direction with a horizontal hydraulic gradient of 0.02 feet/foot. Both the groundwater flow directions and horizontal gradient are consistent with the previous monitoring events.

8.3 Geochemical Results

Geochemical analytical data for this monitoring event are presented in Tables 1 and 2. Geochemical parameters were analyzed in samples from wells MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, MW-15, GW-4, and GW-11.

TOC was detected in all groundwater samples ranging from 1,100 μ g/L to 86,000 μ g/L. These numbers indicate a general increase in TOC concentration across the Site, including wells (GW-4 and GW-11) farther downgradient from the source area. This indicates the substrate is traveling throughout the area of the plume. Although the TOC concentration in the sample from MW-3 decreased significantly from the concentration in the sample from the May 2016 monitoring event.

Iron was detected in samples from five groundwater wells at concentrations ranging from 62.8 μ g/L to 79,300 μ g/L. Manganese was detected in samples from all nine monitoring wells at concentrations ranging from 4.57 μ g/L to 9,620 μ g/L. The iron and manganese concentrations in source area well MW-3 again significantly increased during this monitoring event and may be approaching an unacceptable level to secondary groundwater standards. The concentrations at this monitoring well will be monitored over the upcoming monitoring events, but any future injections may not include this portion of the Site until the metal concentrations decrease.

Sulfate was detected in concentrations ranging from 51 μ g/L to 26,100 $\underline{\mu}$ g/L. Sulfate concentrations significantly decreased in source area well MW-9. Nitrate was detected at concentrations ranging from 172 μ g/L to 3,800 μ g/L. Generally, nitrate concentrations were similar to the previous monitoring event.

Field parameter data for the August monitoring event are presented in Table 3. Dissolved oxygen ranged 0.45 mg/L to 3.90 mg/L. Despite the decrease in the upper range of DO levels, the levels were generally similar to the previous monitoring event. Temperature, pH, and other parameters were within acceptable ranges for ERD to occur.

8.4 Analytical Results

PCE was detected at concentrations greater than the MTCA Method A GW CUL of 5 μ g/L in 10 of the 25 groundwater samples at concentrations ranging from 7.3 μ g/L to 99 μ g/L. Concentrations in the sample from MW-10 showed a significant increase from 10 μ g/L in May to 99 μ g/L during this monitoring event. PCE was detected in an additional four monitoring wells; however, these detected concentrations were less than the MTCA Method A GW CUL for PCE.

Concentrations of TCE and cis-1,2-dichloroethene exceeded their respective GW CULs of 5 μ g/L and 16 μ g/L in the sample from MW-10 at 170 μ g/L and 97 μ g/L, respectively. Concentrations of cis-1,2-dichloroethene and vinyl chloride exceeded their respective GW CULs of 16 μ g/L and 0.2 μ g/L in the sample from MW-11 at 32 μ g/L and 1.1 μ g/L, respectively. Figure 8 shows the PCE groundwater concentrations and plume as identified during the August 2016 monitoring event. Laboratory data sheets for the analytical results are presented in Attachment A.

9.0 DATA EVALUATION

Tables 1 and 2 summarize the groundwater analytical data. Due to the large number of wells and volume of data, the analytical results are most clearly presented graphically. PCE concentrations are shown in a graphical representation of the analytical data on Figure 9. Figures 4, 6, and 8 illustrate, on a quarter-by-quarter basis, the estimated extent of PCE concentrations exceeding the MTCA Method A GW CUL.

PDBs have been demonstrated to be an effective method for sample collection. Going forward, EPI will no longer perform side-by-side comparisons of both sampling techniques and will sample 16 wells using only PDBs and sample the remaining 9 wells using low-flow purging and sampling techniques to obtain the geochemical parameters.

Figure 9 is a graphical representation of the total detected concentrations of PCE over time for each monitoring event. That is, the sum of concentrations, on a quarter-by-quarter basis, of all wells sampled is representative of the general abundance of PCE in the environment. Because MW-15 was not installed prior to the baseline monitoring event, the concentration of PCE detected during the May monitoring event was used for both the baseline and May monitoring events. For the number of wells present and the observed concentrations, this analysis provides a general indication of Site-wide trends in PCE concentration. Figure 9 depicts an overall decline in PCE concentrations in response to the remedial action.

Using the best-fit regression trend lines, PCE has decreased in concentration by approximately 27 percent since the baseline monitoring event and subsequent injection. While concentrations remain elevated, this trend represents a clear improvement in groundwater quality at the Site and the effectiveness of injection event. With the successful distribution of the 3-D Microemulsion[®] this improving trend in PCE concentrations is expected to continue.

Figures 4, 6, and 8 represent the lateral extent of PCE- impacted groundwater, which extends off-property to the southwest beneath Avenue D and onto the Snohomish County Property. The lateral extent of impacts to the aquifer, as indicated by PCE concentrations, is well characterized and is delineated by the existing monitoring well network.

10.0 CONCLUSIONS

The following conclusions are supported by the findings of the baseline monitoring event, initial nutrient substrate injection event, and two follow-up quarterly groundwater monitoring events.

- Groundwater elevation data from all three monitoring events indicate that the predominant groundwater flow direction at the subject property is generally in a south-southwest direction with a horizontal hydraulic gradient of approximately 0.02 feet/foot.
- The current monitoring network and monitoring frequency are appropriate for the observed Site-specific conditions.
- 3-D Microemulsion[®] injections began on March 29, 2016 using a pressurized injection method. Over the duration of the injection period, 8,090 gallons of the nutrient substrate mixture were injected into the subsurface at 12 locations.
- Geochemical parameters have indicated an increase in available carbon, as measured by TOC, traveling throughout the area of the plume. Declining DO and ORP values indicate that increased biological activity stimulated by the addition of a carbon food source are creating the reducing geochemical conditions that are necessary for continued ERD.

- There is a demonstrable trend of improving groundwater quality. This trend is clearly
 observable in the decreased total concentration of PCE in groundwater since the first
 injection event. The total concentration of PCE in groundwater has decreased by 27 percent
 since the baseline monitoring event.
- EPI will evaluate data from the recently completed November 2016 monitoring event and will determine the time frame for an additional upcoming injection event.

a	b	e	S

Table 1

Groundwater Geochemical Analytical Data (μg/L) Interim Remedial Action Report

Snohomish Square Cleaners

Avenue D and 13th Street SE, Snohomish, Washington

	Depth to		Conventionals		Demand		Mine	erals	Nutr	ients		Dissolve	d Gasses ^f	
Sample ID	Water (feet)	Sample Date	Total Sulfide ^a	BODb	TOC°	CODd	Chloride ^e	Sulfate ^e	Nitrite ^e	Nitrate ^e	Carbon Dioxide	Methane	Ethane	Ethene
	6.68	2/9/2016		<2,000	3,900	16,000	24,300	7,450	<5	10,500	120,000	<5	<10	<10
MW-1	8.96	5/17/2016	<50	<2,000	7,500	13,000	43,300	7,820		2,300 ^g	110,000	26	<10	<10
	11.17	8/30/2016	<50	<2,000	86,000	<10,000	29,400	11,500	<5	3,380	120,000	<5	<10	<10
	7.67	2/9/2016		<2,000	4,200	<10,000	1,560	2,260	<5	17,200	13,000	<5	<10	<10
MW-2	11.02	5/17/2016	80	<2,000	700	<10,000	4,500	9,410	<5	10,200	61,000	<5	<10	<10
	13.31	8/30/2016	<50	<2,000	1,500	<10,000	464	1,380	<5	638	72,000	<5	<10	<10
	4.49	2/9/2016		<2,000	520	<10,000	22,300	11,900	<5	2,180	79,000	<5	<10	<10
MW-3	8.35	5/17/2016	<50	<2,000	120,000	1,300,000	10,400	6,540		<10 ^g	100,000	<5	<10	<10
	10.82	8/30/2016	<50	5,500	30,000	110,000	988	51	<5	<2.5	200,000	620 ve (640)	<10 (<100)	<10 (<100)
MW-4	8.93	5/20/2016	<50	<2,000	790	18,000	11,300	13,800	<5	1,230				
	9.82	2/9/2016		<2,000	2,600	13,000	191,000	15,700	<5	4,400	86,000	<5	<10	<10
MW-7	11.07	5/17/2016	<50	<2,000	1,300	<10,000	172,000	10,800		2,600 ^g	75,000	<5	<10	<10
	13.46	8/30/2016	<50	15,000	2,200	34,000	267,000	26,100	<5	3,020	96,000	<5	<10	<10
	9.45	2/9/2016		<2,000	570	<10,000	2,620	24,400	<5	1,150	91,000	<5	<10	<10
MW-8	11.03	5/17/2016	<50	<2,000	3,200	<10,000	4,530	26,600		380 ^g	130,000	17	<10	<10
	12.89	8/30/2016	6	<2,000	1,100	<10,000	376	957	<5	200	110,000	<5	<10	<10
	6.00	2/9/2016		<2,000	<500	<10,000	4,360	8,230	<5	1,050	76,000	<5	<10	<10
MW-9	9.27	5/17/2016	<50	<2,000	<500	<10,000	17,000	43,100	<5	<25	67,000	<5	<10	<10
	11.78	8/30/2016	<50	<2,000	1,200	<10,000	377	957	<5	200	110,000	<5	<10	<10
MW-15	8.42	5/17/2016	<50	<2,000	700	<10,000	12,600	11,800		2,200 ^g	67,000	<5	<10	<10
10100-15	10.42	8/30/2016	<50	<2,000	20,000	<10,000	12,400	11,800	<5	1,280	87,000	<5	<10	<10
	2.78	2/10/2016		<2,000	<500	<10,000	2,500	6,960	<5	323	29,000	<5	<10	<10
GW-4	3.40	5/17/2016	<50	<2,000	790	18,000	11,300	13,800	<5	1,230	76,000	<5	<10	<10
	3.39	8/30/2016	<50	<2,000	6,700	<10,000	1,140	1,960	<5	172	96,000	<5	<10	<10
	18.52	2/9/2016		<200	740	<10,000	20,500	15,700	<5	971	130,000	<5	<10	<10
GW-11	19.92	5/17/2016	<50	<200	790	<10,000	30,800	19,500	<5	2,670	90,000	<5	<10	<10
	20.68	8/30/2016	<50	<200	28,000	<10,000	24,600	17,900	<5	3,800	110,000	<5	<10	<10
	ethod B Grou Cleanup Leve		NVE	NVE	NVE	NVE	NVE	NVE	8,000	25,600	NVE	NA	NA	NA

Notes:

All results presented in milligrams/kilogram (µg/L).

Bold Bold results indicate that the compound was detected.

a Analyzed by Method SM 4500-S2-D.

b Analyzed by Method SM 5210B.

c Analyzed by Method SM 5310B.

d Anayzed by EPA Method 410.4.

e Anayzed by EPA Method 300.0 unless otherwise indicated.

f Anayzed by Method RSK 175.

Analyzed as Nitrate + Nitrite by EPA 353.2

Model Toxics Control Act (MTCA) Method B Groundwater Cleanup Levels from Cleanup Levels

and Risk Calculations (CLARC) database.

Not analyzed.

(640) Value in parentheses is the result of a reanalyzed sample.

NVE No value established.
NA Not applicable.

Compounds:

ve

BOD Biochemical oxygen demand

TOC Total organic carbon
COD Chemical oxygen demand

Qualifier:

The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

Table 2 Additional Groundwater Analytical Data (µg/L) Interim Remedial Action Report Snohomish Square Cleaners

Avenue D and 13th Street SE, Snohomish, Washington

	Depth to				Me	etals ^a					Detected VO	Cs ^b				Detected VOCs ^c	:	
Sample ID	•	Sample Date	lron filtered	Iron unfiltered	Lead filtered	Lead unfiltered	Manganese filtered	Manganese unfiltered	PCE	TCE	cis-1,2- Dichloro- ethene	trans-1,2- Dichloro- ethene	Vinyl chloride	PCE	TCE	cis-1,2-Dichloro- ethene	trans-1,2- Dichloro- ethene	Vinyl chloride
	6.68	2/9/2016	202	808			1,990	2,080	8.9	<1	<1	<1	<0.2					
MW-1	8.96	5/17/2016	1,070	960					4.7	<1	<1	<1	<0.2					
	11.17	8/30/2016	72.2	263			1,870	1,960	18	<1	<1	<1	<0.2					
_	7.67	2/9/2016	52.8	213			3.41	8.09	<1	<1	<1	<1	<0.2					
MW-2	11.02	5/17/2016	365	12,600 ve J (16,700)	<1	6.07			<1	<1	<1	<1	<0.2					
	13.31	8/29/2016	<50	3,910			6.41	115	<1	<1	<1	<1	<0.2					
_	4.49	2/9/2016	<50	270			2.76	8.74	12	<1	<1	<1	<0.2					
MW-3	8.35	5/17/2016	12,400 ve J (15,700)	16,600 ve J (26,400)					<1	<1	<1	<1	<0.2					
	10.82	8/29/2016	79,300	75,600			9,620	10,000	<5	<5	<5	<5	<0.2 j					
_	4.54	2/12/2016							26	1.1	<1	<1	<0.2					
MW-4	NA	2/29/2016												28	<1	<1	<1	<0.2
-	8.93	5/20/2016							5.6	<1	1.3	<1	<0.2	1.6	<1	<1	<1	<0.2
	10.29	8/30/2016												<1	<1	4.7	<1	0.45
-	9.18	2/11/2016							70	1.4	<1	<1	<0.2					
MW-5	NA 10.00	2/29/2016												50	<1	<1	<1	<0.2
-	10.89	5/19/2016							26	1.2	<1	<1	<0.2	8.6	1.0	<1	<1	<0.2
	12.06	8/30/2016							16	<1	<1	<1	<0.2	9.5	<1	<1	<1	<0.2
-	13.39	2/11/2016							<1	<1	<1	<1	<0.2					
MW-6	NA 14.63	2/29/2016 5/19/2016											<0.2	<1	<1	<1 <1	<1	<0.2
-	16.21	8/30/2016							<1 	<1	<1 	<1		<1 <1	<1 <1	<1	<1	<0.2
	9.82	2/9/2016	194	296			6.49	10.3	4.8	 <1	<1	 <1	<0.2					
MW-7	11.07	5/17/2016	196	9,690					25	<1	<1	<1	<0.2					
10100-7	13.46	8/30/2016	187	42,000			15.4	1,330	16	<1	<1	<1	<0.2					
	9.45	2/9/2016	73.9	231			70.5	99.7	<1	<1	<1	<1	<0.2					
MW-8	11.03	5/17/2016	171	117					<1	<1	<1	<1	<0.2					
	12.89	8/29/2016	72.1	69,200			203	3,640	<1	<1	<1	<1	<0.2					
	6.00	2/9/2016	<50	2,570			1.27	55.1	7.9	<1	<1	<1	<0.2					
MW-9	9.27	5/17/2016	78.1	7,120 ve J (7,990)	<1	2			6.5	<1	<1	<1	<0.2					
	11.78	8/29/2016	<50	<500			4.57	13.5	<1	<1	<1	<1	<0.2					
	4.02	2/12/2016							38	2.7	2.4	<1	<0.2					
	NA	2/29/2016												38	1.8	1.5	<1	<0.2
MW-10	7.56	5/19/2016							7.0	73	5.5	<1	<0.2	10	12	<1	<1	<0.2
	10.08	8/30/2016												99 (97)	170 ve (170)	97	1.1 (<10)	<0.2 (<2)
	5.23	2/12/2016							48	2.5	1.2	<1	<0.2					
MW-11	NA	2/29/2016												57	2.2	1.1	<1	<0.2
IVIVV-II	7.55	5/19/2016							62	2.8	1.0	<1	<0.2	36	2.4	<1	<1	<0.2
	10.28	8/30/2016	-		-				<1	<1	30	<1	0.7	<1	<1	32	<1	1.1
	9.67	2/12/2016							<1	<1	<1	<1	<0.2					
MW-12	NA	2/29/2016												<1	<1	<1	<1	<0.2
1V1 V V - 1 Z	11.09	5/19/2016							1.7	<1	<1	<1	<0.2	1.7	<1	<1	<1	<0.2
	13.34	8/30/2016												3.5	<1	<1	<1	<0.2
	18.09	2/11/2016							3.2	<1	<1	<1	<0.2					
MW-13	NA	2/29/2016												3.3	<1	<1	<1	<0.2
	18.92	5/20/2016							2.6	<1	<1	<1	<0.2	1.5	<1	<1	<1	<0.2
	19.85	8/30/2016												<1	<1	<1	<1	<0.2
	11.29	2/11/2016							<1	<1	<1	<1	<0.2	<1	<1	<1		
MW-14	NA	2/29/2016												<1	<1	<1	<1	<0.2
	11.95	5/19/2016							<1	<1	<1	<1	<0.2	<1	<1	<1	<1	<0.2
	13.34	8/30/2016												<1	<1	<1	<1	<0.2
MW-15	8.42	5/17/2016	78.7	214					140	2.8	1.1	<1	<0.2					
	10.42	8/30/2016	<50	289			22.7	28.0	95	2.3	1.5	<1	<0.2					

Table 2

Additional Groundwater Analytical Data ($\mu g/L$)

Interim Remedial Action Report Snohomish Square Cleaners

Avenue D and 13th Street SE, Snohomish, Washington

	Depth to				М	etals ^a					Detected VO	Cs ^b				Detected VOCs	C	
Sample ID	Water (feet)	Sample Date	Iron filtered	lron unfiltered	Lead filtered	Lead unfiltered	Manganese filtered	Manganese unfiltered	PCE	TCE	cis-1,2- Dichloro- ethene	trans-1,2- Dichloro- ethene	Vinyl chloride	PCE	TCE	cis-1,2-Dichloro- ethene	trans-1,2- Dichloro- ethene	Vinyl chloride
	1.64	2/10/2016							<1	<1	<1	<1	<0.2					
GW-1	NA	2/29/2016												<1	<1	<1	<1	<0.2
GW-1	2.46	5/18/2016							<1	<1	<1	<1	<0.2	<1	<1	<1	<1	<0.2
	2.71	8/30/2016							-					<1	<1	<1	<1	<0.2
	3.13	2/10/2016							1.6	<1	<1	<1	<0.2					
GW-3	NA	2/29/2016												<1	<1	<1	<1	<0.2
OW-5	3.15	5/18/2016							2.0	<1	<1	<1	<0.2	1.6	<1	<1	<1	<0.2
	3.34	8/30/2016												2.4	<1	<1	<1	<0.2
	2.78	2/10/2016	<50	188			1.42	133	4.8	<1	<1	<1	<0.2					
GW-4	3.40	5/17/2016	91.7	3,250	<1	<1			9.6	<1	<1	<1	<0.2					
	3.39	8/29/2016	62.8	<500			44.1	332	11	<1	<1	<1	<0.2					
	4.60	2/10/2016							2.5	<1	<1	<1	<0.2					
GW-5	NA	2/29/2016												2.5	<1	<1	<1	<0.2
GW-5	5.04	5/18/2016							3.1	<1	<1	<1	<0.2	1.8	<1	<1	<1	<0.2
	5.42	8/30/2016												2.9	<1	<1	<1	<0.2
	3.92	2/10/2016							6.4	<1	<1	<1	<0.2					-
GW-6	NA	2/29/2016												6.1	<1	<1	<1	<0.2
GW-6	4.08	5/18/2016							6.6	<1	<1	<1	<0.2	5.1	<1	<1	<1	<0.2
	4.21	8/30/2016							7.3	<1	<1	<1	<0.2	7	<1	<1	<1	<0.2
	2.67	2/11/2016							1.2	<1	<1	<1	<0.2					-
GW-7	NA	2/29/2016												<1	<1	<1	<1	<0.2
GW-7	3.99	5/20/2016							2.0	<1	<1	<1	<0.2	1.1	<1	<1	<1	<0.2
	4.56	8/30/2016												1.1	<1	<1	<1	<0.2
	2.39	2/11/2016							22	<1	<1	<1	<0.2					
GW-8	NA	2/29/2016												21	<1	<1	<1	<0.2
GW-8	3.04	5/20/2016							25	<1	<1	<1	<0.2	21	<1	<1	<1	<0.2
	3.57	8/30/2016												20	<1	<1	<1	<0.2
	2.66	2/11/2016							<1	<1	1.7	<1	<0.2					
GW-9	NA	2/29/2016												<1	<1	1.3	<1	<0.2
Gw-9	2.84	5/20/2016							<1	<1	1.7	<1	<0.2	<1	<1	1.4	<1	<0.2
	4.30	8/30/2016												<1	<1	1.1	<1	<0.2
	21.39	2/11/2016							19	1.2	<1	<1	<0.2					
GW-10	NA	2/29/2016												27	1.2	<1	<1	<0.2
GVV-10	23.21	5/20/2016							8.5	1.3	<1	<1	<0.2	5.8	1.1	<1	<1	<0.2
ļ l	23.86	8/30/2016							19	1.3	2.7	<1	<0.2	18	1.1	<1	<1	<0.2
İ	18.52	2/9/2016	91.2	85.8			2.09	2.7	8.4	<1	<1	<1	<0.2					
GW-11	19.92	5/17/2016	127	95	<1	<1			25	<1	<1	<1	<0.2					
ļ l	20.68	8/30/2016	90.4	1,210			5.27	29.4	19	<1	<1	<1	<0.2					
MTCA Method	d A Groundw Level ^d	vater Cleanup	11,;	200 ^e		15	2,2	240°	5	5	16 ^e	160°	0.2	5	5	16 ^e	160°	0.2

Notes:

All results presented in milligrams/kilogram (µg/L).

Bold Bold results indicate that the compound was detected.

Shaded cells indicate that the compound was detected at a concentration greater than the cleanup level.

- Anayzed by EPA Method 200.8.
- Analyzed by EPA Method 8260; sampled 2/09/16-2/11/16 and 5/18/16.
- c Analyzed by EPA Method 8260; sampled with passive diffusion bag (PDB).
- d Model Toxics Control Act (MTCA) Method A used, Table 720-1, WAC 173-340-900; unless otherwise noted.
- e MTCA Method B Groundwater Cleanup Levels from Cleanup Levels and Risk Calculations (CLARC) database.

 Not analyzed.
- (640) Value in parentheses is the result of a reanalyzed sample.

Compounds:

VOCs Volatile organic compounds
TCE Trichloroethylene
PCE Tetrachloroethene

Qualifiers:

- The analyte concentration is reported below the lowest calibration standard. The value is reported as an estimate.
- The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

ENVIRONMENTAL PARTNERS INC

Table 3

Field Parameters

Interim Remedial Action Report Snohomish Square Cleaners

Avenue D and 13th Street SE, Snohomish, Washington

Sample ID	Sample Date	Depth to Water	рН	Conductivit y	DO (mg/L)	Tempuratur e	ORP
•		(feet)	_	(ms/cm ²)	(mg/L)	(°C)	(mv)
	2/9/2016	6.68	6.20	0.420	2.24	12.90	190.1
MW-1	5/17/2016	8.96	6.04	0.347	1.20	14.87	114.6
	8/30/2016	11.17	5.82	0.381	1.01	18.14	257.6
	2/9/2016	7.67	5.54	0.139	9.51	12.66	326.7
MW-2	5/17/2016	11.02	5.20	0.124	7.82	13.37	263.1
	8/30/2016	13.31	5.07	0.151	2.89	15.67	258.6
	2/9/2016	4.49	5.82	0.187	6.88	10.50	305.4
MW-3	5/17/2016	8.35	5.92	0.461	0.48	14.14	6.5
	8/30/2016	10.82	5.37	0.684	1.50	17.89	46.8
B 40 4 4	2/12/2016	4.54	5.85	0.129	7.15	12.80	183.3
MW-4	5/20/2016	8.93	5.66	0.397	0.49	13.79	28.8
	8/30/2016	10.29	 				202.4
MW-5	2/11/2016	9.18	5.85	0.361	0.31	12.56	303.1
IVIVV-3	5/19/2016	10.89	5.68	0.280	1.41	12.86	198.9
	8/30/2016	12.06	5.74	0.328 0.424	0.87	16.29 14.58	145.2
MW-6	2/11/2016	13.39	5.81 5.57		0.40 0.51		237.1
IVIVV-O	5/19/2016 8/30/2016	14.63 16.21		0.366	0.51	14.25	167.4
	2/9/2016	9.82	6.37	0.987	5.65	12.49	325.6
MW-7	5/17/2016	11.07	5.57	0.725	2.2	14.96	206.3
1V1 V V - /	8/30/2016	13.46	5.54	0.725	3.09	18.41	272.8
	2/9/2016	9.45	6.02	0.974	1.69	13.55	284.7
MW-8	5/17/2016	11.03	5.65	0.185	0.44	14.30	213.2
IVIVV-O	8/30/2016	12.89	5.87	0.209	0.44	18.00	158.8
	2/9/2016	6.00	5.87	0.250	7.03	12.88	326.5
MW-9	5/17/2016	9.27	5.46	0.108	6.77	15.22	243.0
1V1 V V - 3	8/30/2016	11.78	5.34	0.097	3.90	19.05	136.0
	2/12/2016	4.02	5.88	0.108	7.79	11.56	340.2
MW-10	5/19/2016	7.56	6.08	0.123	1.76	13.31	23.8
10100-10	8/30/2016	10.08	0.00	0.230	1.70	13.31	23.0
	2/12/2016	5.23	5.89	0.133	6.40	13.62	337.7
MW-11	5/19/2016	7.55	5.71	0.133	0.40	14.02	27.7
10100-11	8/30/2016	10.28	6.09	0.663	0.34	17.63	-1.9
	2/12/2016	9.67	5.47	0.329	4.90	12.53	265.9
MW-12	5/19/2016	11.09	5.30	0.260	4.35	14.07	157.2
10100-12	8/30/2016	13.34		0.200		14.07	
	2/11/2016	18.09	5.69	0.290	1.25	13.48	364.4
MW-13	5/20/2016	18.92	5.44	0.270	2.92	15.24	150.6
10100	8/30/2016	19.85		0.270		13.24	130.0
	2/11/2016	11.29	6.00	0.117	4.40	12.82	303.4
MW-14	5/19/2016	11.95	5.62	0.088	5.97	13.31	194.9
	8/30/2016	13.34					
	5/17/2016	8.42	5.74	0.143	3.56	14.71	188.2
MW-15	8/30/2016	10.42	5.56	0.185	0.95	17.13	274.4
	2/10/2016	1.64	6.10	0.144	6.79	10.26	295.3
GW-1	5/18/2016	2.46	5.83	0.155	5.41	15.41	156.8
·	8/30/2016	2.71					
	2/10/2016	3.13	6.68	0.169	7.62	9.22	298.5
GW-3	5/18/2016	3.15	6.30	0.178	5.75	16.65	169.5
-	8/30/2016	3.34					
	2/10/2016	2.78	6.39	0.110	1.03	9.26	283.7
GW-4	5/17/2016	3.40	5.74	0.169	1.46	14.08	237.9
-	8/30/2016	3.39	5.76	0.243	0.76	18.58	227.9
	2/10/2016	4.60	6.36	0.363	1.62	10.89	281.0
GW-5	5/18/2016	5.04	6.06	0.283	1.41	13.49	151.3
-	8/30/2016	5.42					
	2/10/2016	3.92	6.36	0.168	2.63	10.17	298.0
GW-6	5/18/2016	4.08	6.09	0.151	1.30	15.91	164.6
-	8/30/2016	4.21	6.06	0.219	0.61	20.23	166.9
	2/11/2016	2.67	6.20	0.185	8.92	9.41	283.9
GW-7	5/20/2016	3.99	5.62	0.171	7.95	15.42	196.3
	8/30/2016	4.56					
	2/11/2016	2.39	6.01	0.213	3.05	9.71	318.3
GW-8	5/20/2016	3.04	5.65	0.200	1.13	15.51	198.7
-	8/30/2016	3.57		1			
	2/11/2016	2.66	6.38	0.247	0.29	9.38	216.0
GW-9	5/20/2016	2.84	6.11	0.230	0.33	16.89	33.0
	8/30/2016	4.30					
	2/11/2016	21.39	5.89	0.248	3.11	12.71	347.7
GW-10	5/20/2016	23.21	6.19	0.341	0.53	13.69	-20.2
	8/30/2016	23.86	6.15	0.440	0.69	15.97	-13.4
	2/9/2016	18.52	5.83	0.214	2.79	14.87	319.4
GW-11	5/17/2016	19.92	5.56	0.227	2.13	14.01	255.3
	8/30/2016	20.68	5.34	0.260	2.13	15.76	282.5

Notes:

ms/cm²

mg/L °C

Microsiemens per square centimeter

Milligrams per liter Degrees Celsius Millivolts mv Not analyzed

Compounds:

DO ORP

Dissolved oxygen Oxidation-reduction potential

Table 4 Substrate Injection Amounts Interim Remedial Action Report Snohomish Square Cleaners

Avenue D and 13th Street SE, Snohomish, Washington

Well	3/29/2016	3/30/2016	3/31/2016	4/5/2016	4/6/2016	4/7/2016	4/8/2016	4/12/2016	4/13/2016	Total
IJ-1			245		155					400 *
IJ-2				400						400 *
IJ-3				175	225					400 *
IJ-4				400						400 *
IJ-5			400							400
IJ-6			400							400
IJ-7			400							400
IJ-8					400					400
IJ-9		35	30				120	90	100	375
IJ-10							25	85	90	200 *
IJ-11		375								375 *
IJ-12	40	335								375
MW-3						140	100			240 *
MW-4							230	150		380
GW-10				165	235					400
MW-11							375			375
EIW-E						1,080				1,080
EIW-W					650	430				1,080
							То	tal Injected	d Amount:	8,080

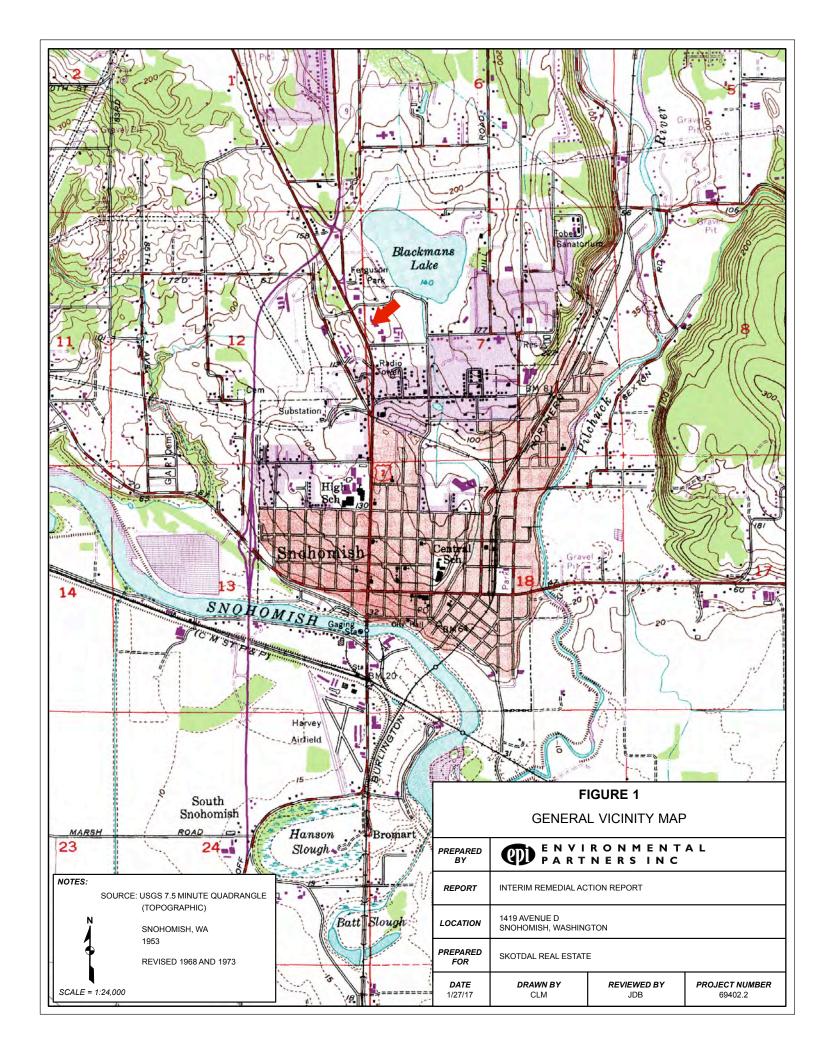
Notes:

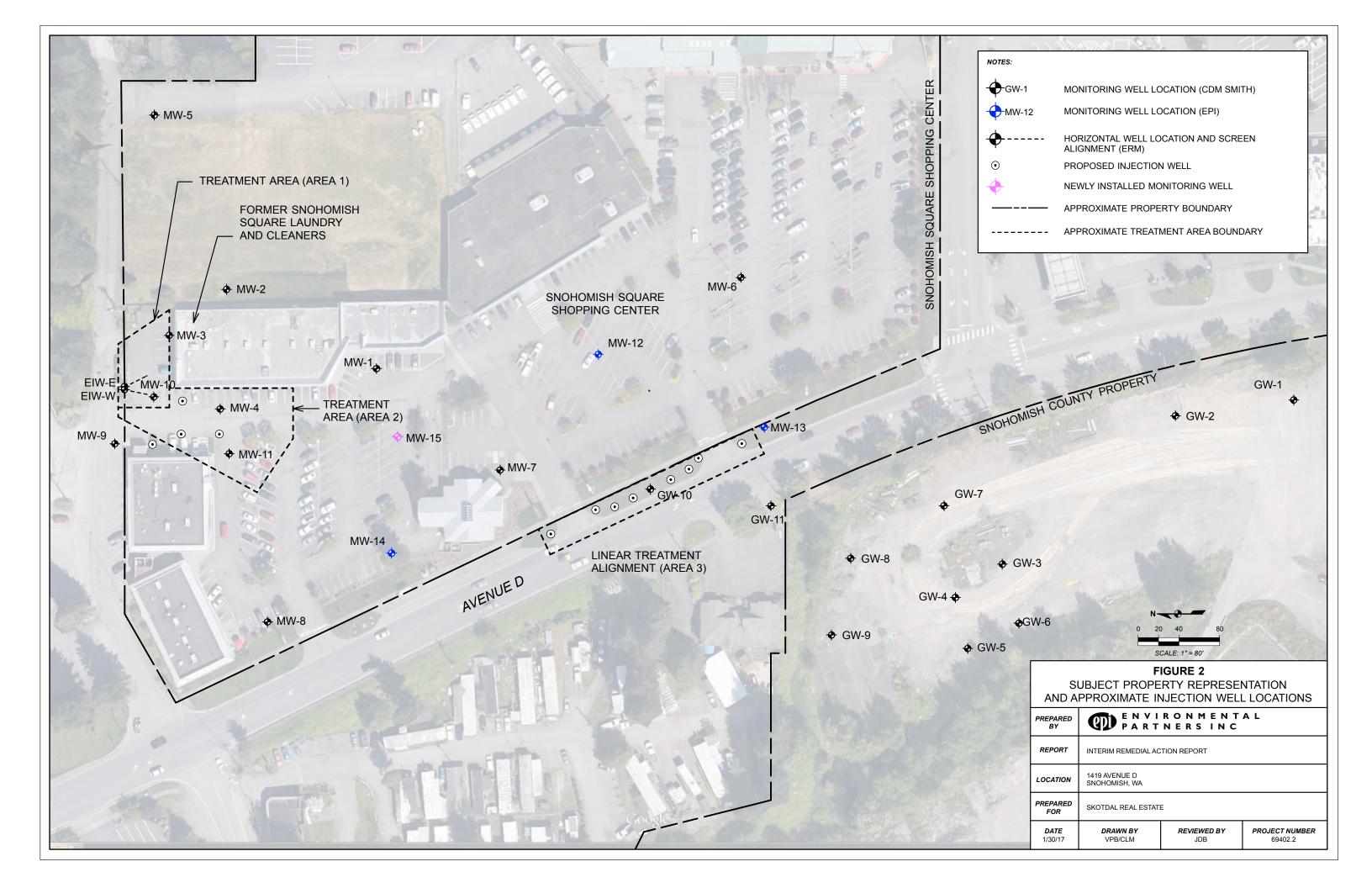
Injection amounts are in gallons.

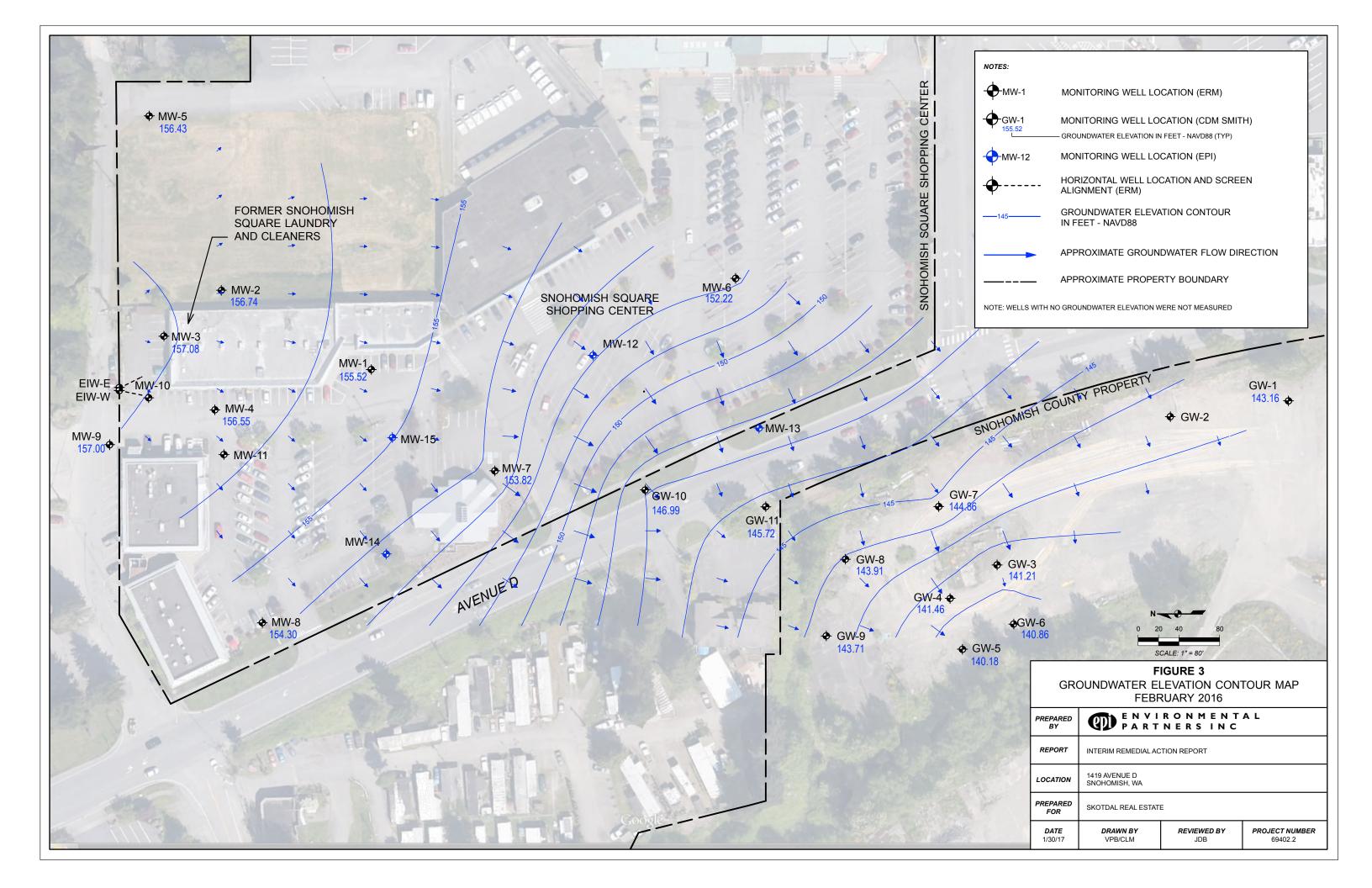
Method: Pressurized injection using injection pump.

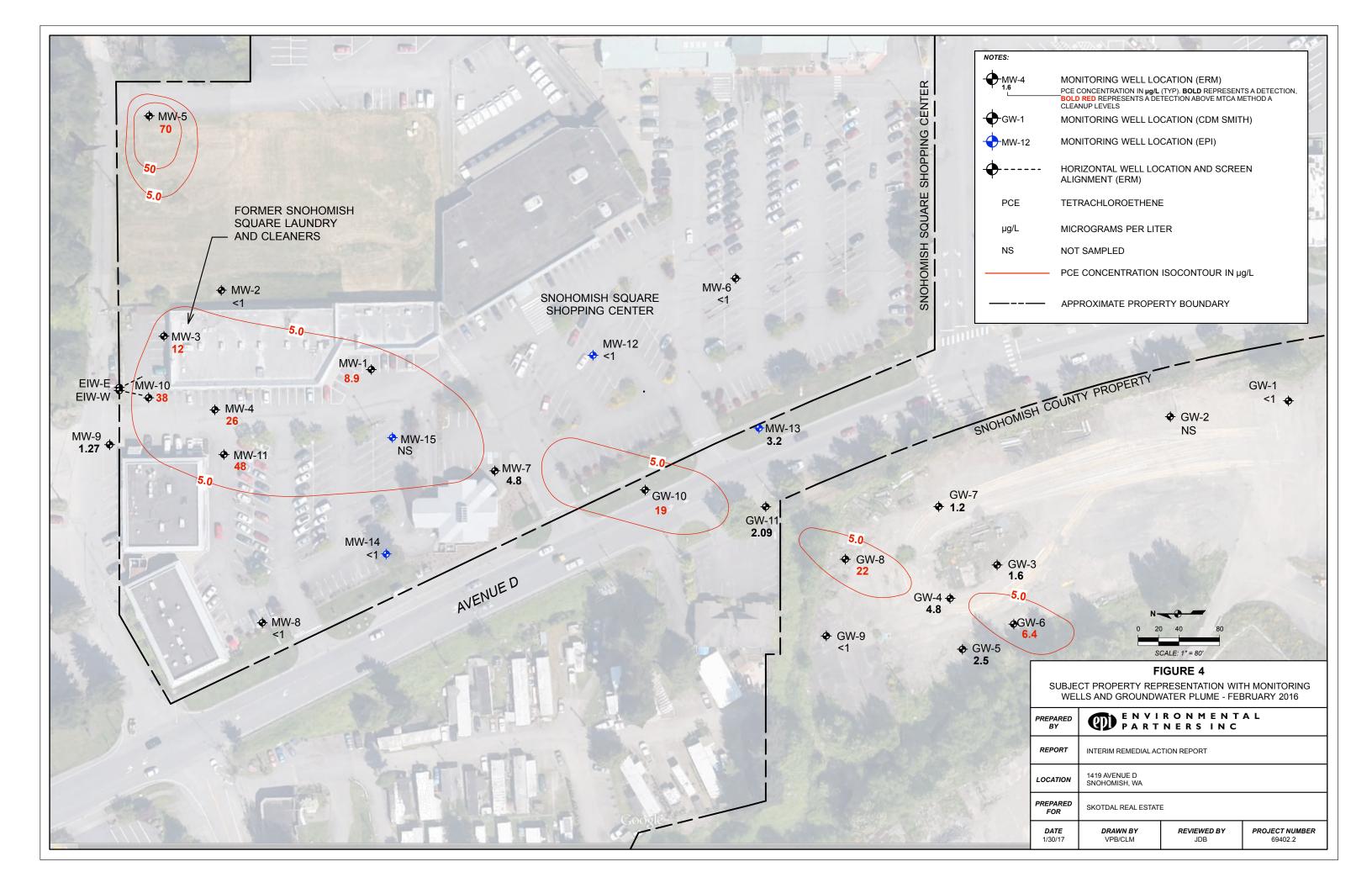
- Part of injection was gravity fed.
- -- No injection at this well.

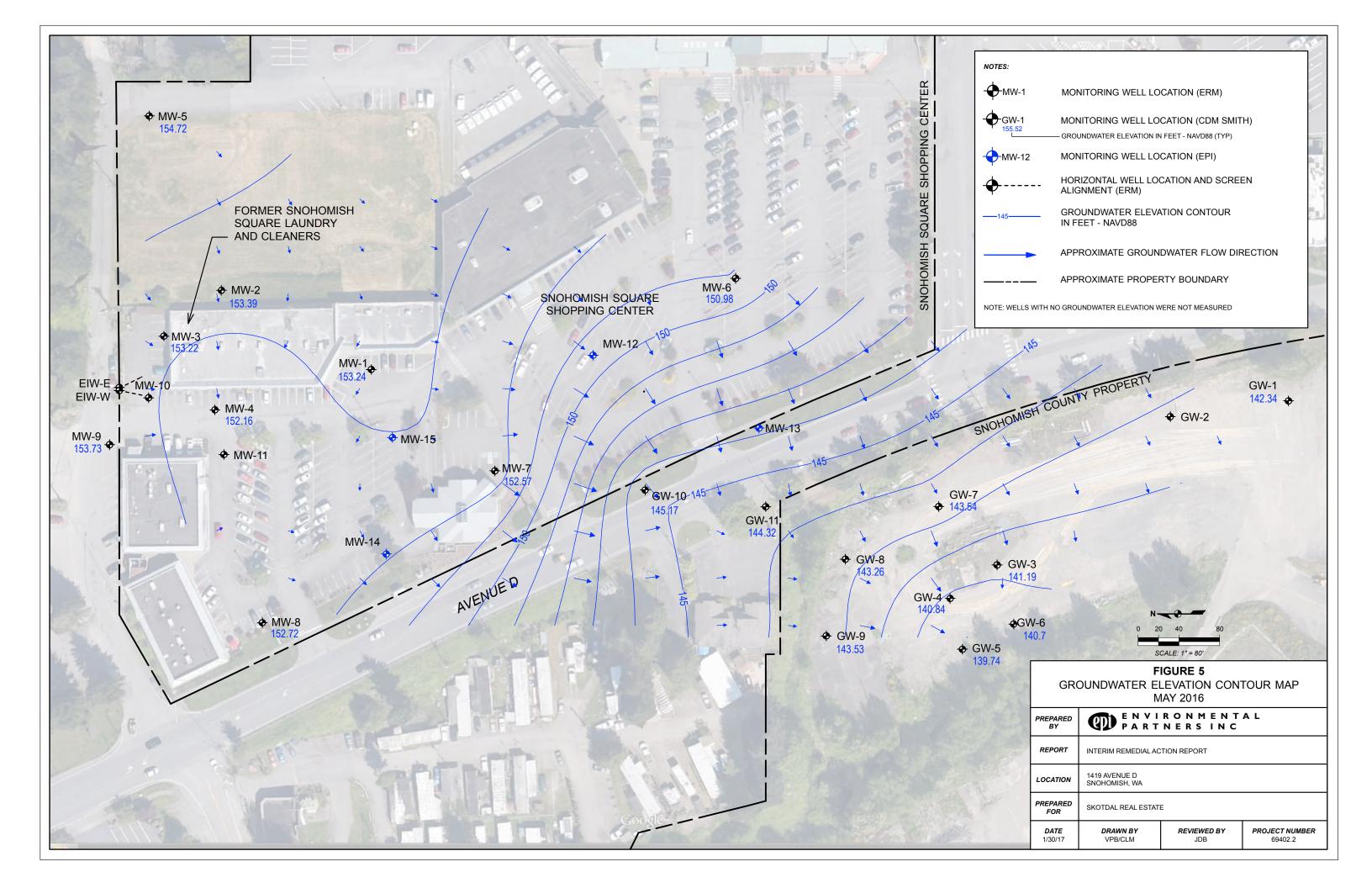


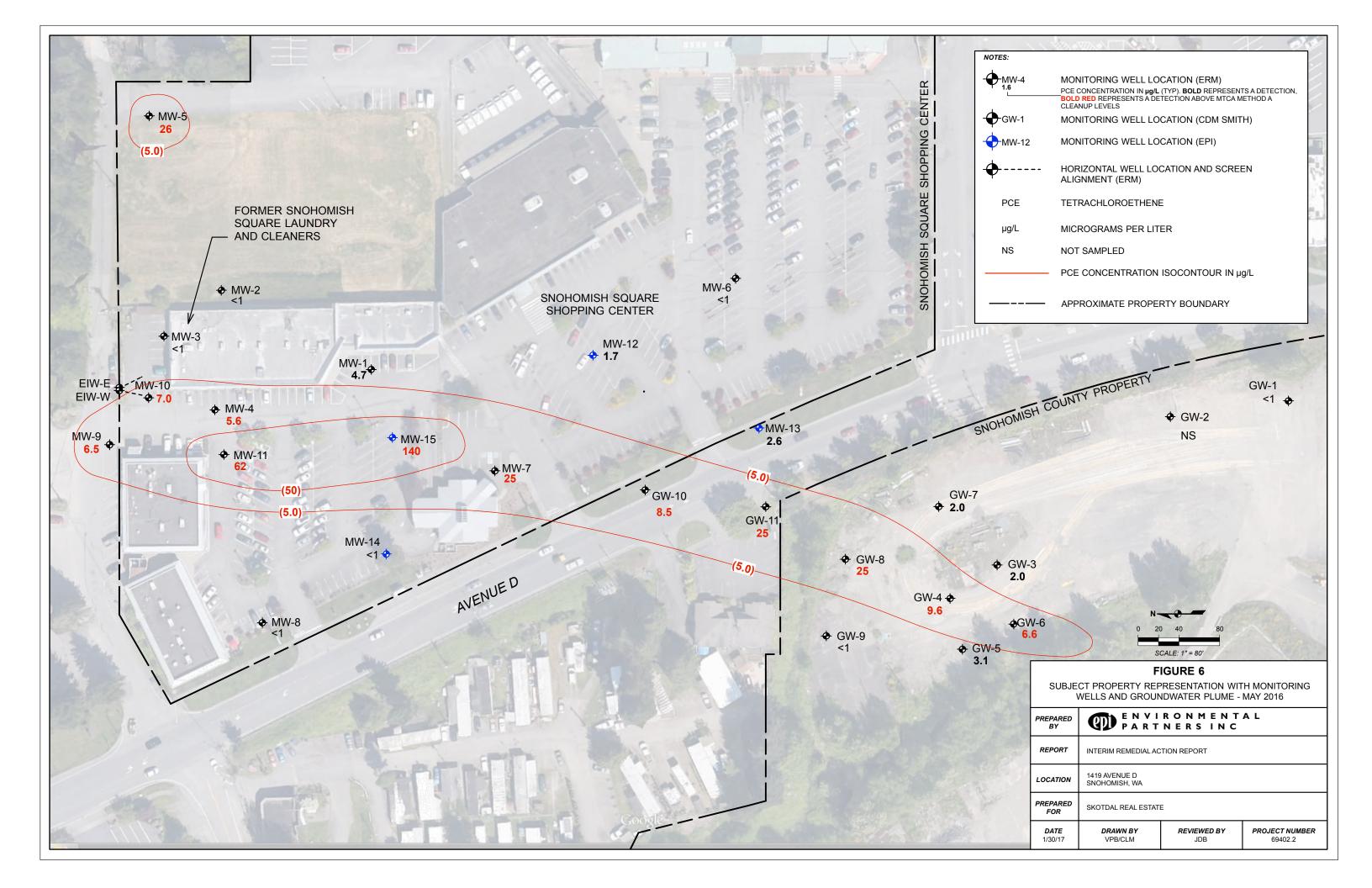


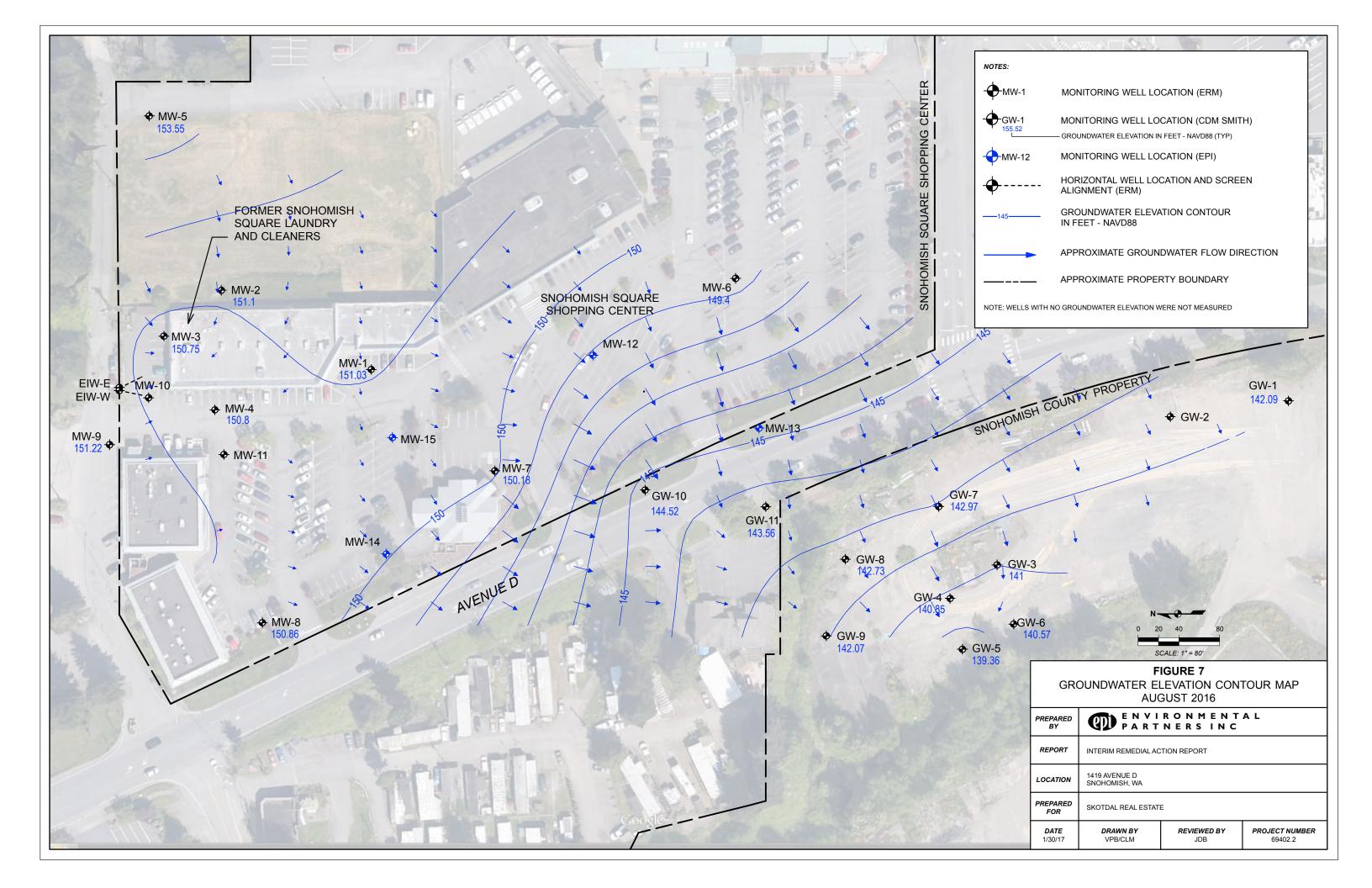


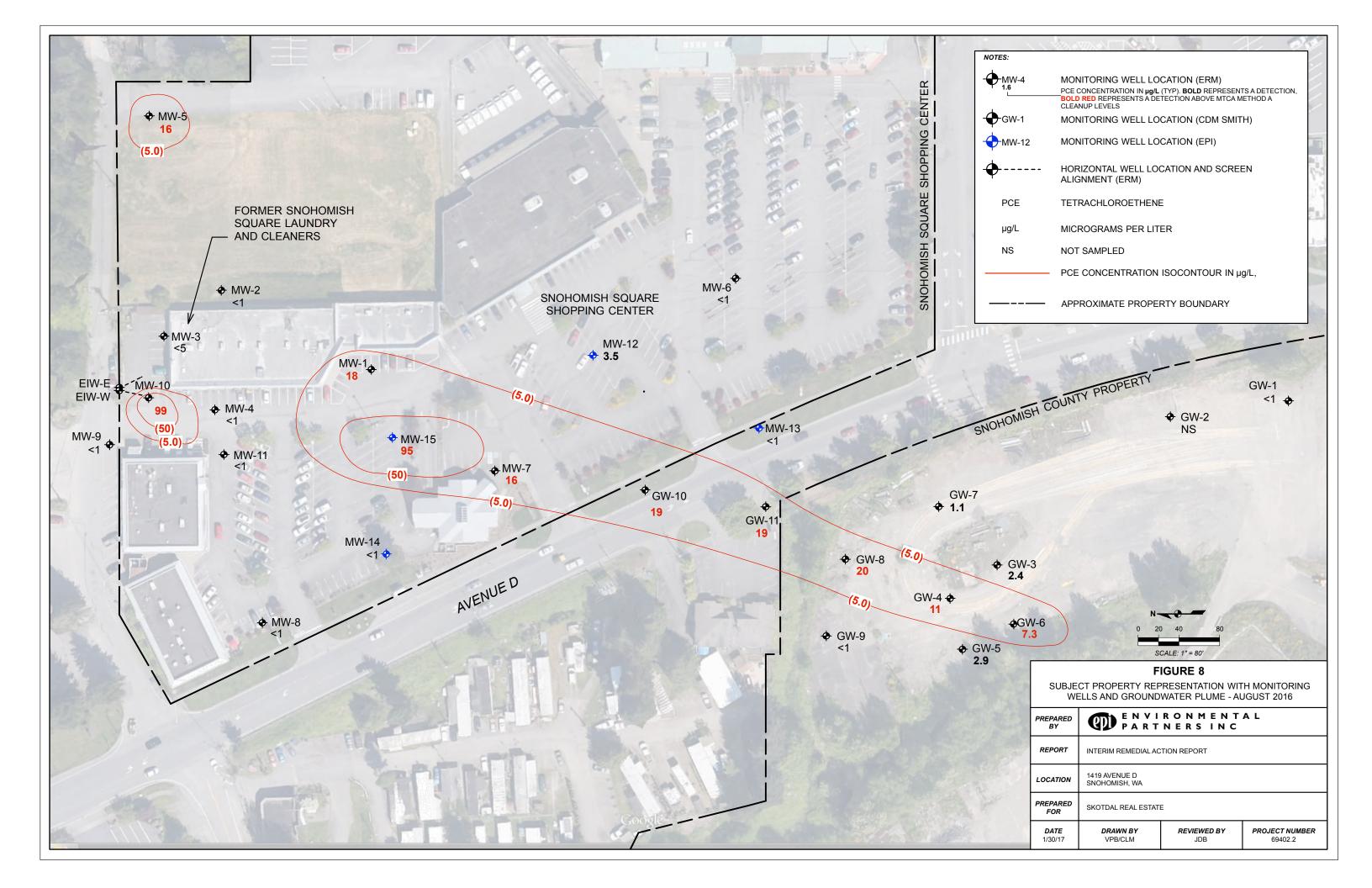


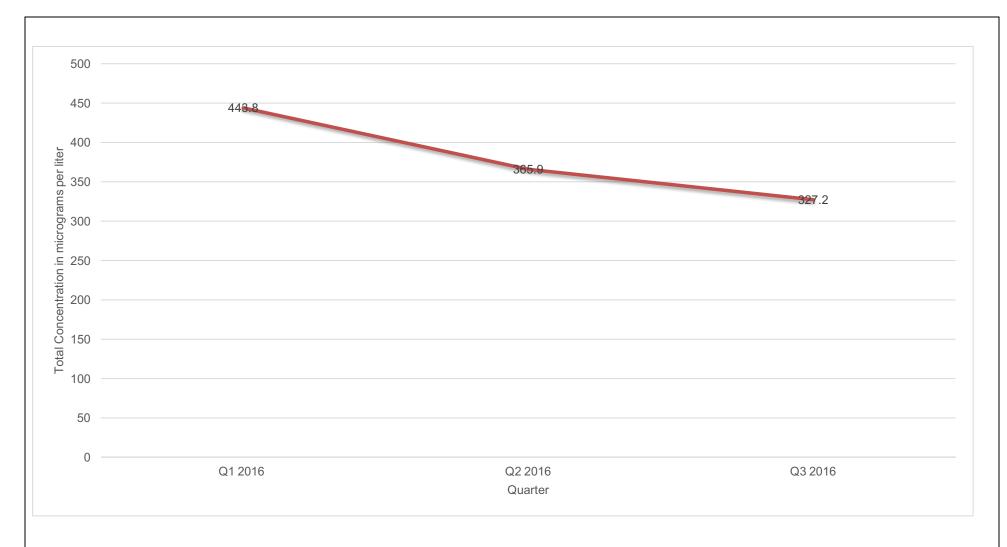












NOTE:

PCE TETRACHLOROETHENE

PCE	PCE CONCENTRATIONS VERSUS TIME 2016										
PREPARED BY	ENVIRONMENTAL PARTNERS INC										
REPORT		IAL ACTION REPOF									
LOCATION	1419 AVENUE D SNOHOMISH, WA	ASHINGTON									
PREPARED FOR	SKOTDAL REAL ESTATE										
DATE	CREATED BY	REVIEWED BY	PROJECT NUMBER								

69402.2

1/30/17

CSW

FIGURE 9

Attachment A Analytical Results



Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Feb 25 2016 Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Dear MICHAEL ERDAHL:

Enclosed please find the analytical data for your 602160 project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW-2	Water	16-A001818	DEM, MIN, NUT
GW-11	Water	16-A001819	DEM, MIN, NUT
MW-7	Water	16-A001820	DEM, MIN, NUT
MW-8	Water	16-A001821	DEM, MIN, NUT
MW-1	Water	16-A001822	DEM, MIN, NUT
MW-9	Water	16-A001823	DEM, MIN, NUT
MW-3	Water	16-A001824	DEM, MIN, NUT
GW-4	Water	16-A001825	DEM, MIN, NUT

Your samples were received on Wednesday, February 10, 2016. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,

Aaron W. Young Laboratory Manager

Project #: 602160 PO Number: D-847

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand MIN=Minerals

Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664

www.amtestlab.com

Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Project Name: 602160 Project #: 602160 PO Number: D-847

All results reported on an as received basis.

Date Received: 02/10/16 Date Reported: 2/25/16

16-A001818

AMTEST Identification Number Client Identification

MW-2 Sampling Date 02/09/16, 13:34

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	4.2	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	1.56	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	2.26	mg/l		0.1	EPA 300.0	TN	02/11/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	17.2	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	17.2	mg/l		0.025	EPA 300.0	Calculated	

Friedman & Bruya, Inc. Project Name: 602160 AmTest ID: 16-A001819

AMTEST Identification Number Client Identification Sampling Date 16-A001819 GW-11 02/09/16, 12:41

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.74	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	20.5	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	15.7	mg/l		0.1	EPA 300.0	TN	02/11/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	0.971	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	0.971	mg/l		0.025	EPA 300.0	Calculated	

Friedman & Bruya, Inc. Project Name: 602160 AmTest ID: 16-A001820

AMTEST Identification Number Client Identification Sampling Date 16-A001820 MW-7 02/09/16, 11:51

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	2.6	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	13.	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	191.	mg/l		0.05	EPA 300.0	TN	02/16/16
Sulfate	15.7	mg/l		0.1	EPA 300.0	TN	02/11/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	4.40	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	4.40	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001821 MW-8 02/09/16, 10:58

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.57	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	2.62	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	24.4	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	1.15	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	1.15	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification

16-A001822 MW-1

Sampling Date 02/09/16, 10:17

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	3.9	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	16.	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	24.3	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	7.45	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	10.5	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	10.5	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001823 MW-9 02/09/16, 09:17

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	< 0.5	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	4.36	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	8.23	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	1.05	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	1.05	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001824 MW-3 02/09/16, 08:29

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.52	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	22.3	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	11.9	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	2.18	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	2.18	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001825 GW-4 02/10/16, 10:00

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	< 0.5	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	2.50	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	6.96	mg/l		0.1	EPA 300.0	TN	02/11/16

Nutrients

- Tatilolito							
PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	0.323	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	0.323	mg/l		0.025	EPA 300.0	Calculated	

Aaron W. Young Laboratory Manager Am Test Inc. 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



QC Summary for sample numbers: 16-A001818 to 16-A001825

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
16-A001793	BOD	mg/l	920	840	9.1
16-A001819	Chloride	mg/l	20.5	20.6	0.49
16-A001787	Nitrate	mg/l	< 0.025	< 0.025	
16-A001819	Nitrate	mg/l	0.971	1.02	4.9
16-A001787	Nitrite	mg/l	< 0.005	< 0.005	
16-A001819	Nitrite	mg/l	< 0.005	< 0.005	
16-A001819	Sulfate	mg/l	15.7	16.0	1.9
16-A001833	Sulfate	mg/l	17.0	16.3	4.2

MATRIX SPIKES

,						
SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
16-A001389	Total Organic Carbon	mg/l	< 0.5	46.	50.	92.00 %
16-A001974	Total Organic Carbon	mg/l	1.7	47.	50.	90.60 %
16-A001983	Total Organic Carbon	mg/l	3.4	45.	50.	83.20 %
16-A002121	Chemical Oxygen Demand	mg/l	< 10	52.	50.	104.00 %
16-A002226	Chemical Oxygen Demand	mg/l	< 10	52.	50.	104.00 %
16-A001787	Nitrate	mg/l	< 0.025	1.95	2.00	97.50 %
16-A001819	Nitrate	mg/l	0.971	2.94	2.00	98.45 %
16-A001787	Nitrite	mg/l	< 0.005	2.08	2.00	104.00 %
16-A001819	Nitrite	mg/l	< 0.005	1.88	2.00	94.00 %
16-A001819	Sulfate	mg/l	15.7	17.6	2.00	95.00 %
16-A001833	Sulfate	mg/l	17.0	29.0	12.0	100.00 %

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Organic Carbon	mg/l	50.	45.	90.0 %
Total Organic Carbon	mg/l	50.	43.	86.0 %
Chemical Oxygen Demand	mg/l	100	100	100. %
Chemical Oxygen Demand	mg/l	100	110	110. %
Chloride	mg/l	2.00	1.96	98.0 %
Chloride	mg/l	2.00	2.13	106. %
Nitrate	mg/l	2.00	2.05	102. %
Nitrite	mg/l	2.00	2.03	102. %
Sulfate	mg/l	2.00	2.06	103. %

QC Summary for sample numbers: 16-A001818 to 16-A001825...

BLANKS

ANALYTE	UNITS	RESULT
Total Organic Carbon	mg/l	< 0.5
Total Organic Carbon	mg/l	< 0.5
Chemical Oxygen Demand	mg/l	< 10
Chemical Oxygen Demand	mg/l	< 10
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Nitrate	mg/l	< 0.025
Nitrite	mg/l	< 0.005
Sulfate	mg/l	< 0.1

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl	SUBCONTRACTERA mt. st	
Company Friedman and Bruya, Inc.	PROJECT NAME/NO.	PO#
Address 3012 16th Ave W	602160	D-847
City, State, ZIP_Seattle, WA 98119	REMARKS Please lab fine Please Email Results	Her trate/Ntrite
Phone # (206) 285-8282 Fax # (206) 283-5044		

Page # of	.12
TURNAROUND TIME	<u> </u>
Standard (2 Weeks) □ RUSH	
Rush charges authorized by:	
SAMPLE DISPOSAL □ Dispose after 30 days	
☐ Return samples ☐ Will call with instructions	

									ANAI	YSES	SREG	QUES'	TED	
Sample ID	Lab ID	Date Sampled	Tim e Sampled	M atrix	# of jars	Total Organic Carbon	COD	ВОБ	Chloride	Sulfate	Sulfide	Nitrate ⊁	Nitrite 🗲	
MW-Z	1818	2/9/16	1334	W	5	X	×	~	. >	X		X	~	
GW-11	10		1241	Ŷ.	5	×	×	*	X	X		X	X	
MW-7	20		1151		5	*	×	×	X	\times		\nearrow	×	
MW-8	U		1058		5	~	\prec	X	\searrow	/		×	×	
MW-I	12		1017		5	×	×	×	X	\times		X	\times	,
MW-9	23		0917		5	×	×	X	×	×		×	X	
MW-3	24		0829		5	\times	\rightarrow	×	\times	×		\times	×	
GW-4	25	2/10/16	1000		5	X	×	×	X	×		\times	×	
								d c						
		,												

3012 16th Avenue West Seattle, WA 98119-2029

Friedman & Bruya, Inc.

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNAT Relinquished by:	URE	PRINT NAME Michael Erdahl	COMPANY Friedman and Bruya	DATE 2/10/16	1600
Received by: Relinquished by:	W)	Mackenine Johnson To 65	Amtest	2/1916	1600
Received by:					



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

February 26, 2016

Mike Erdahl Friedman & Bruya, Incorporated 3012 16th Ave. W. Seattle, WA 98119

RE: 602160

Dear Mike:

Enclosed are the results of the samples submitted to our laboratory on February 12, 2016. For your reference, these analyses have been assigned our service request number P1600714.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 9:34 am, Feb 26, 2010

Sue Anderson Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsqlobal.com

Client:

Friedman & Bruya, Incorporated

Project:

602160

Service Request No:

P1600714

CASE NARRATIVE

The samples were received intact under chain of custody on February 12, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gas (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation, however it is not part of the AlHA-LAP accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsqlobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L15-398
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-001
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 15-6
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 5-5
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

		D	LITTLE SCIVIL	Mari Rei Okt
Client:	Friedman & Bruya, Inc	orporated		Service Request: P1600714
Project ID:	602160			
Date Received:	2/12/2016			
Time Received:	09:30			
				Ŋ.
				[00]
				•
				173
		Date	Time	Y
Client Sample ID	Lab Code Matri	x Collected	Collected	RS
MW-2	P1600714-001 Wate		13:34	X
GW-11	P1600714-002 Wate	2/9/2016	1241	
MW-7	P16007 14-003 Water	r 2/9/2016	11:51	X
MW-8	P1600714-004 Web		10.34 · S	
MW-I	P1600714-005 Water	r 2/9/2016	10:17	X
MW-9 :- :- : : : : : : : : : : : : : : : :				
MW-3	P16007 14-007 Wate	r 2/9/2016	08:29	X
TRIP BLANK	PIGOTA OF WAS	2/9/2016		
GW-4	P1600714-009 Wate	r 2/10/2016	10:00	x

ي مو مرو

SUBCONTR	ACTEA	MDIE	CHAIN	OF C	TICTODY
SUBCUNTR	AUTSA	MPLE	CHAIN	Or C	USIUDY

															<u>, 00</u>	114		
	, e r:	SU	JBCONTR					AIN	OF	CUS	TOI	DY		71	¢ OO	?	. 1	1
Send Report To Michae	el Erdahl			SUB	CON	TRAC	TER	ALS	5					Г	Pa	ge#_	ROUND	of TIME *
Company Friedm	an and Br	uva. Inc.		1		T NAM	E/NO.				PC)#	٧٩.	X	tanda	rd (2 '	Weeks)	
	6th Ave W			e* .	4	6021	60			Į į)- B	51					uthorize	
			···········	REM	ARF	KS .				<u> </u>							E DISPO	
City, State, ZIP <u>Seattle</u> . Phone # (206) 285-8282		*	5044	·-]	Please	Email	Resu	lts					O F	leturn	samp	: 30 days les 1 instruct	1
				<u></u>					· · ·	ANAT	VCF	S REG	TIES'		122 002		1	10225
				<u> </u>			g		•	AIVAI	-1 OE	F		עפו				
Sample ID	Lab ID	Date Sampled	Time Sampled	Mat	rix	# of jars	Dioxins/Furans	ЕРН	VPH	Nitrate	Sulfate	Alkalinity	TOC-9060M	C0.	.]	Notes
MW-2	•	2/9/16	1334	wat	er	Z	- 1							×				V71
GWII	2	1	1241		-	L		1						X				
MW-7	3		1151			2.								X				
MW-8	Ч		1058			٦								×				
MW-1	1		1017			2								Y				
MW-9	b		0917			٤			1					×				
Mn-3	7		0629			2						<u> </u>		×			<u></u>	
Trip Blank	8		1350			ŧ				46				×				
'6w-4	4	41-14	1000	11		2				5.5				*				
			•															
· ·			<u> </u>		,,				1									
				<u>↓</u>			•										ļ	
	٠,	• •		<u>ل</u>											`			
Friedman & Bruya, Inc. 3012 16th Avenue West	Polinqui	SIGNA	TURE	=	Mi	chael E	PRIN rdahl	T NA	ME		+	Fried	COM nan a				DATE	TIME //30
Seattle, WA 98119-2029	Received l		7			-, -				•	\dashv					7	11//4	1130
Ph. (206) 285-8282	Relinquis	ned by:											+					
Fax (206) 283-5044	Received t	oy:			2	112/1	l.	097	30	Z° 46	,\							

ALS Environmental Sample Acceptance Check Form

Client: Project:		Bruya, Incorporated		Work o	rder:	P1600714			
- ,	s) received on	: 2/12/16	-	Date opened: 2/12/16		by:	KKEL	PE	
				•		_		• •	_
				ody seals is strictly meant to ind				ndication	of
compliance	or nonconformity	/. Thermal preservation an	d pH will only be evaluated eith	ner at the request of the client an	d/or as rec	quired by the metho		No	<u>N/A</u>
1	Wara sample	antainers properly	marked with client sampl	a ID9			<u>Yes</u> ⊠		
	-	containers properly containers arrive in go	•	e ID:			X		
	-	_					X		
3		of-custody papers use		0			_		
	-		or tags agree with custody	papers?			X		
5	-	volume received adeq	· · · · · ·				X		
6	-	within specified holding					X		
7		•	preservation) of cooler at	t receipt adhered to?			X		
	Cooler Ter	nperature: 2° C Bla	ank Temperature: ° C		Gel F	Packs			
8	Were custod	y seals on outside of o	cooler/Box/Container?					X	
		Location of seal(s)	?			_Sealing Lid?			X
	Were signatu	re and date included?							X
	Were seals in	tact?							X
9	Do contain	ers have appropriate r	preservation, according to	o method/SOP or Client s	pecified	information?	X		
		• • • •	submitted samples are pl	· ·	•				X
			ence/absence of air bubbl	•			X		
				ne sample pH and <u>if neces</u>	sarv alte	e it?		X	
10	Tubes:	Are the tubes car	-	ie sampie pri una <u>ir neces</u>	<u>July</u> unic				×
		-	-	•0					×
11	Badges:		properly capped and intac						☒
		Are dual bed bac	lges separated and individ	dually capped and intact?					<u> </u>
P1600714	I- 001.01	40mL VOA NP	7		A	MC 02/16/20	16		
P1600714	I-001.02	40mL VOA NP			A				
P1600714	I-002.01	40mL VOA NP	7		A	MC 02/16/20	16		
P1600714	1-002.02	40mL VOA NP			A				
P1600714		40mL VOA NP	7		A	MC 02/16/20	16		
P1600714		40mL VOA NP			<u>A</u>	1.40.0044.00			
P1600714		40mL VOA NP	7		<u>A</u>	MC 02/16/20	116		
P1600714		40mL VOA NP			<u>A</u>	N4C 02/16/20	116		
P1600714		40mL VOA NP	7		<u>A</u>	MC 02/16/20	10		
P1600714		40mL VOA NP	7		A A	MC 02/16/20	116		
P1600714 P1600714		40mL VOA NP 40mL VOA NP	 		A A	WIC 02/10/20			
P1600714		40mL VOA NP	7		A	MC 02/16/20	116		
P1600714		40mL VOA NP	 		A	1.110 02 10/20			
P1600714		40mL VOA NP	1 1		Ā	MC 02/16/20	16		
		<u> </u>	TD 1			· · · · · · · · · · · · · · · · · · ·			
Explain	any discrepan	cies: (include lab sample	E ID numbers):		***				
	····								
									_

ALS Environmental Sample Acceptance Check Form

Client: Friedman & Bruya, Incorporated	Work order:	P1600714		
Project: 602160				
Sample(s) received on: 2/12/16	Date opened: 2/12/16	by:	KKELPE	

D1 (00714 000 01			-			NG 02/16/2016
P1600714-009.01 P1600714-009.02	40mL VOA NP		7		A A	MC 02/16/2016
11000714-009.02	40mL VOA NP				Α	
						
			ĺ			
	·				-	
		<u> </u>		· · · · ·		
			<u> </u>	,·		
			<u> </u>			
	<u> </u>					
	<u> </u>		L	<u> </u>		L

Explain any discrepancies: (include lab sample ID numbers):

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS Page 1 of 1

Client: Friedman & 1

Friedman & Bruya, Incorporated

Client Project ID: 602160 ALS Project ID: P1600714

Carbon Dioxide

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst: Matrix: Mike Conejo

Water

Test Notes:

Date(s) Collected: 2/9 - 2/10/16 Date Received: 2/12/16 Date Analyzed: 2/16/16

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result µg/L	MRL μg/L	Data Qualifier
MW-2	P1600714-001	0.10	13,000	1,000	
GW-11	P1600714-002	0.10	130,000	1,000	
MW-7	P1600714-003	0.10	86,000	1,000	
MW-8	P1600714-004	0.10	91,000	1,000	
MW-I	P1600714-005	0.10	120,000	1,000	
MW-9	P1600714-006	0.10	76,000	1,000	
MW-3	P1600714-007	0.10	79,000	1,000	
TRIP BLANK	P1600714-008	0.10	1,100	1,000	
GW-4	P1600714-009	0.10	29,000	1,000	
Method Control Sample	P160216-MB	0.10	ND	1,000	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client: Friedman & Bruya, Incorporated

Client Sample ID: Duplicate Lab Control Sample ALS Project ID: P1600714

Client Project ID: 602160 ALS Sample ID: P160216-DLCS

Test Code:

RSK 175

Instrument ID: HP5890A/GC10/TCD

Analyst: Matrix:

Mike Conejo

Water

Date Collected: NA

Date Received: NA Date Analyzed: 2/16/16

Volume(s) Analyzed: NA ml(s)

Test Notes:

		Spike Amount	Res	sultı			ALS			
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		ug/L	ug/L	ug/L	LCS	DLCS	Limits		Limit	Qualifier
124-38-9	Carbon Dioxide	18,300	16,400	17,500	90	96	62-139	6	24	

^{1 =} The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

February 26, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 602160

Dear Mr. Bernthal:

Included are the results from the testing of material submitted on February 10, 2016 from the 69402, F&BI 602160 project. There are 44 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: Joe Sherrod EPI0226R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 10, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 602160 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
602160 -01	MW-2
602160 -02	GW-11
602160 -03	MW-7
602160 -04	MW-8
602160 -05	MW-1
602160 -06	MW-9
602160 -07	MW-3
602160 -08	Trip Blank
602160 -09	GW-4

The samples, excluding the trip blank, were sent to Amtest for TOC, chloride, sulfate, nitrate, nitrite, BOD, and COD analyses. In addition, all of the samples were sent to ALS-Simi for carbon dioxide analysis. The results from Amtest are included. The results from ALS-Simi will be forwarded upon receipt.

The dissolved metals were filtered at Friedman and Bruya on February 12, 2016 at 11:35. The data were flagged accordingly.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-2 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-01 f Date Analyzed: 02/23/16 Data File: 602160-01.043 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron52.8Manganese3.41

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: GW-11 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-02 f Date Analyzed: 02/23/16 Data File: 602160-02.046 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron91.2Manganese2.09

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-7 Client: **Environmental Partners** Date Received: Project: 02/10/16 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-03 f Date Analyzed: 02/23/16 Data File: 602160-03.047 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 194 Manganese 6.49

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-8 Client: **Environmental Partners** Date Received: Project: 02/10/16 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-04 f Date Analyzed: 02/23/16 Data File: 602160-04.048 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

 $\begin{array}{cc} & & Concentration \\ Analyte: & & ug/L \ (ppb) \end{array}$

Iron73.9Manganese70.5

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-1 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-05 f Date Analyzed: 02/23/16 Data File: 602160-05.050 Matrix: ICPMS1

Matrix: Water Instrument: ICPM Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 202 Manganese 1,990

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-9 Client: **Environmental Partners** Date Received: Project: 02/10/16 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-06 f Date Analyzed: 02/23/16 Data File: 602160-06.051 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <50 Manganese 1.27

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-3 Client: **Environmental Partners** Date Received: Project: 02/10/16 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-07 f Date Analyzed: 02/23/16 Data File: 602160-07.052 Matrix: Instrument: Water ICPMS1 Units: ug/L (ppb) Operator: SP

 $\begin{array}{cc} & & Concentration \\ Analyte: & ug/L \ (ppb) \end{array}$

Iron<50</th>Manganese2.76

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: GW-4 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/23/16 602160-09 f Date Analyzed: 02/23/16 Data File: 602160-09.053 Matrix: Instrument: ICPMS1 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <50 Manganese 1.42

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 602160
Date Extracted: 02/23/16 Lab ID: I6-108 mb f

Date Analyzed: 02/23/16 Data File: I6-108 mb.021
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <50 Manganese <1

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-2 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-01 Date Analyzed: 02/12/16 Data File: 602160-01.061

Matrix: Water Instrument: ICPMS1
Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron213Manganese8.09

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: GW-11 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-02 Date Analyzed: 02/12/16 Data File: 602160-02.062 Matrix: Instrument: ICPMS1 Water

Matrix: Water Instrument: ICPI
Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron85.8Manganese2.70

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-7 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-03 Date Analyzed: 02/12/16 Data File: 602160-03.063 Matrix: ICPMS1

Matrix: Water Instrument: ICPM Units: ug/L (ppb) Operator: SP

Concentration
Analyte: ug/L (ppb)

Iron 296 Manganese 10.3

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-8 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-04 Date Analyzed: 02/12/16 Data File: 602160-04.064

Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: SP

Concentration
Analyte: ug/L (ppb)

Iron231Manganese99.7

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-1 Client: Environmental Partners Date Received: 02/10/16 Project: 69402, F&BI 602160 Date Extracted: 02/12/16 Lab ID: 602160-05

Date Analyzed: 02/12/16 Data File: 602160-05.065
Matrix: Water Instrument: ICPMS1
Units: ug/L (ppb) Operator: SP

Units: ug/L (ppb) Operator:

Concentration

Analyte: Concentration ug/L (ppb)

Iron 808 Manganese 2,080

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-9 Client: **Environmental Partners** Date Received: Project: 69402, F&BI 602160 02/10/16 Lab ID: Date Extracted: 02/12/16 602160-06 Date Analyzed: 02/12/16 Data File: 602160-06.066

Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron2,570Manganese55.1

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-3 Client: **Environmental Partners** Date Received: Project: 02/10/16 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-07 Date Analyzed: 02/12/16 Data File: 602160-07.067 Matrix: Water Instrument: ICPMS1

Matrix: Water Instrument: ICPM Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron270Manganese8.74

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: GW-4 Client: **Environmental Partners** Date Received: 02/10/16 Project: 69402, F&BI 602160 Lab ID: Date Extracted: 02/12/16 602160-09 Date Analyzed: 02/12/16 Data File: 602160-09.057 Matrix: Instrument: ICPMS1

Matrix: Water Instrument: ICPM Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 188 Manganese 133

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 602160

02/12/16 Lab ID: Date Extracted: I6-83 mb Date Analyzed: 02/12/16 Data File: I6-83 mb.027 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: SP

Concentration

Analyte: ug/L (ppb)

Iron <50 Manganese <1

ENVIRONMENTAL CHEMISTS

	Client:	Environmental Partners 69402, F&BI 602160
02/11/16	Lab ID:	602160-01
02/11/16	Data File:	021111.D
Water	Instrument:	GCMS4
ug/L (ppb)	Operator:	JS
	02/11/16 Water	02/10/16 Project: 02/11/16 Lab ID: 02/11/16 Data File: Water Instrument:

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	98	60	133

4-Bromofluorobenzene	98	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	02/10/16	Client: Project:	Environmental Partners 69402, F&BI 602160
Date Extracted: Date Analyzed:	02/11/16	Lab ID:	602160-02
	02/11/16	Data File:	021112.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

99	60	
Concentration ug/L (ppb)		
< 0.2		
<1		
<1		
<5		
<1		
<1		
<1		
<1		
<1		
<1		
8.4		
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-7	Client:	Environmental Partners
Date Received:	02/10/16	Project:	69402, F&BI 602160
Date Extracted:	02/11/16	Lab ID:	602160-03
Date Analyzed:	02/11/16	Data File:	021113.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

4-Bromofluorobenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	4.8		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-8	Client:	Environmental Partners
Date Received:	02/10/16	Project:	69402, F&BI 602160
Date Extracted:	02/11/16	Lab ID:	602160-04
Date Analyzed:	02/11/16	Data File:	021114.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	101	60	133

4-Bromofluorobenzene	101	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-1 02/10/16 02/11/16 02/11/16 Water	Client: Project: Lab ID: Data File: Instrument:	Environmental Partners 69402, F&BI 602160 602160-05 021115.D GCMS4
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	100	60	133

4-Bromofluorobenzene	100	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	8.9		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	MW-9 02/10/16 02/11/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602160 602160-06
Date Analyzed:	02/11/16	Data File:	021116.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	100	60	133

100	60	
Concentration ug/L (ppb)		
< 0.2		
<1		
<1		
<5		
<1		
<1		
<1		
<1		
<1		
<1		
7.9		
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	02/10/16	Client: Project:	Environmental Partners 69402, F&BI 602160
Date Extracted: Date Analyzed:	02/11/16	Lab ID:	602160-07
	02/11/16	Data File:	021117.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	99	60	133

4-Bromofluorobenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	12		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Trip Blank	Client:	Environmental Partners
Date Received:	02/10/16	Project:	69402, F&BI 602160
Date Extracted:	02/11/16	Lab ID:	602160-08
Date Analyzed:	02/11/16	Data File:	021110.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	105	63	127
4-Bromofluorobenzene	102	60	133

4-Bromofluorobenzene	102	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-4 02/10/16 02/11/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602160 602160-09
Date Analyzed:	02/11/16	Data File:	021118.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	100	60	133

4-Bromofluorobenzene	100	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	4.8	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 602160
Date Extracted:	02/11/16	Lab ID:	06-0244 mb
Date Analyzed:	02/11/16	Data File:	021105.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	100	60	133

4-Drollionuorobenzene	100	U
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-2 Client: Environmental Partners Date Received: 02/10/16 Project: 69402, F&BI 602160

 Date Extracted:
 02/11/16
 Lab ID:
 602160-01

 Date Analyzed:
 02/11/16
 Data File:
 004F0401.D

 Matrix
 Water
 Instrument:
 CC8

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: GW-11 Client: Environmental Partners
Date Received: 02/10/16 Project: 69402, F&BI 602160
Date Extracted: 02/11/16 Lab ID: 602160-02

Date Analyzed: 02/11/16 Data File: 006F0601.D Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-7 Client: Environmental Partners

Date Received: 02/10/16 Project: 69402, F&BI 602160

Date Fettmental: 02/11/16 Leb ID: 602160 02

Date Extracted: 02/11/16 Lab ID: 602160-03
Date Analyzed: 02/11/16 Data File: 007F0701.D
Matrix: Water Instrument: GC8

Matrix: Water Instrument: GC Units: ug/L (ppb) Operator: JS

Concentration Compounds: ug/L (ppb)

Methane <5

 $\begin{array}{c} \text{Ethane} & <\!10 \\ \text{Ethene} & <\!10 \end{array}$

ENVIRONMENTAL CHEMISTS

Operator:

JS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-8 Client: Environmental Partners Date Received: 02/10/16 Project: 69402, F&BI 602160

 Date Extracted:
 02/11/16
 Lab ID:
 602160-04

 Date Analyzed:
 02/11/16
 Data File:
 008F0801.D

 Matrix:
 Water
 Instrument:
 GC8

Concentration

ug/L (ppb)

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

Units:

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-1 Client: Environmental Partners Date Received: 02/10/16 Project: 69402, F&BI 602160

 Date Extracted:
 02/11/16
 Lab ID:
 602160-05

 Date Analyzed:
 02/11/16
 Data File:
 009F0901.D

 Matrix
 Water
 Instrument:
 CC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration Compounds: ug/L (ppb)

Methane 31

Ethane <10 Ethene <10

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-9 Client: Environmental Partners Date Received: 02/10/16 Project: 69402, F&BI 602160

 Date Extracted:
 02/11/16
 Lab ID:
 602160-06

 Date Analyzed:
 02/11/16
 Data File:
 010F1001.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

 $\begin{array}{ccccc} \text{Client Sample ID:} & \text{MW-3} & \text{Client:} & \text{Environmental Partners} \\ \text{Date Received:} & 02/10/16 & \text{Project:} & 69402, F\&BI 602160 \\ \end{array}$

 Date Extracted:
 02/11/16
 Lab ID:
 602160-07

 Date Analyzed:
 02/11/16
 Data File:
 011F1101.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC: Units: ug/L (ppb) Operator: JS

Concentration ug/L (ppb)

Compounds: ug/L (ppb)
Methane <5

Ethane <10 Ethene <10

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: Trip Blank Client: Environmental Partners
Date Received: 02/10/16 Project: 69402, F&BI 602160
Date Extracted: 02/11/16 Lab ID: 602160-08

Date Analyzed: 02/11/16 Data File: 005F0501.D Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Operator:

JS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: GW-4 Client: Environmental Partners
Date Received: 02/10/16 Project: 69402, F&BI 602160
Date Extracted: 02/11/16 Lab ID: 602160-09

Date Analyzed: 02/11/16 Data File: 012F1201.D
Matrix: Water Instrument: GC8

Concentration

ug/L (ppb)

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

Units:

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 602160

Date Extracted: 02/11/16 Lab ID: 06-0242 mb2
Date Analyzed: 02/11/16 Data File: 003F0301.D
Matrix: Water Instrument: GC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Date of Report: 02/26/16 Date Received: 02/10/16

Project: 69402, F&BI 602160

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 602160-01 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	52.8	97	101	70-130	4
Manganese	ug/L (ppb)	20	3.41	103	104	70-130	1

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	107	85-115
Manganese	ug/L (ppb)	20	107	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 02/26/16 Date Received: 02/10/16

Project: 69402, F&BI 602160

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 602160-09 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	188	138 b	152 b	70-130	10 b
Manganese	ug/L (ppb)	20	133	199 b	267 b	70-130	29 b

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	107	85-115
Manganese	ug/L (ppb)	20	109	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 02/26/16 Date Received: 02/10/16 Project: 69402, F&BI 602160

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 602160-01 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Vinyl chloride	ug/L (ppb)	50	< 0.2	95	36-166
Chloroethane	ug/L (ppb)	50	<1	123	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	108	60-136
Methylene chloride	ug/L (ppb)	50	<5	117	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	106	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	102	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	104	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	107	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	106	60-146
Trichloroethene	ug/L (ppb)	50	<1	99	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	91	10-226

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Vinyl chloride	ug/L (ppb)	50	92	94	50-154	2
Chloroethane	ug/L (ppb)	50	122	119	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	107	106	67-136	1
Methylene chloride	ug/L (ppb)	50	109	108	39-148	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	104	102	68-128	2
1,1-Dichloroethane	ug/L (ppb)	50	102	102	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	103	102	80-123	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	105	107	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	105	104	83-130	1
Trichloroethene	ug/L (ppb)	50	99	100	80-120	1
Tetrachloroethen e	ug/L (ppb)	50	92	92	76-121	0

ENVIRONMENTAL CHEMISTS

Date of Report: 02/26/16 Date Received: 02/10/16 Project: 69402, F&BI 602160

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED GASSES USING METHOD RSK 175

Laboratory Code: 602162-01 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Methane	ug/L (ppb)	140	110	24 hr
Ethane	ug/L (ppb)	<10	<10	nm
Ethene	ug/L (ppb)	<10	<10	nm

-			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methane	ug/L (ppb)	59	85	80	50-150	6
Ethane	ug/L (ppb)	110	77	73	50-150	5
Ethene	ug/L (ppb)	102	108	98	50-150	10

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- \boldsymbol{J} The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Feb 25 2016 Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Dear MICHAEL ERDAHL:

Enclosed please find the analytical data for your 602160 project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW-2	Water	16-A001818	DEM, MIN, NUT
GW-11	Water	16-A001819	DEM, MIN, NUT
MW-7	Water	16-A001820	DEM, MIN, NUT
MW-8	Water	16-A001821	DEM, MIN, NUT
MW-1	Water	16-A001822	DEM, MIN, NUT
MW-9	Water	16-A001823	DEM, MIN, NUT
MW-3	Water	16-A001824	DEM, MIN, NUT
GW-4	Water	16-A001825	DEM, MIN, NUT

Your samples were received on Wednesday, February 10, 2016. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,

Aaron W. Young Laboratory Manager

Project #: 602160 PO Number: D-847

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand MIN=Minerals

Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664

www.amtestlab.com



Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Project Name: 602160 Project #: 602160 PO Number: D-847

All results reported on an as received basis.

Date Received: 02/10/16 Date Reported: 2/25/16

AMTEST Identification Number Client Identification

Sampling Date

16-A001818 MW-2

02/09/16, 13:34

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	4.2	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE			
Chloride	1.56	mg/l		0.05	EPA 300.0	TN	02/11/16			
Sulfate	2.26	mg/l		0.1	EPA 300.0	TN	02/11/16			

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	17.2	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	17.2	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001819 **GW-11** 02/09/16, 12:41

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.74	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	20.5	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	15.7	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE			
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16			
Nitrate	0.971	mg/l		0.025	EPA 300.0	TN	02/11/16			
Nitrate+Nitrite	0.971	mg/l		0.025	EPA 300.0	Calculated				

AMTEST Identification Number Client Identification Sampling Date

16-A001820 MW-7 02/09/16, 11:51

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	2.6	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	13.	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	191.	mg/l		0.05	EPA 300.0	TN	02/16/16
Sulfate	15.7	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE			
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16			
Nitrate	4.40	mg/l		0.025	EPA 300.0	TN	02/11/16			
Nitrate+Nitrite	4.40	mg/l		0.025	EPA 300.0	Calculated				

AMTEST Identification Number Client Identification Sampling Date

16-A001821 MW-8 02/09/16, 10:58

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.57	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	2.62	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	24.4	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	1.15	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	1.15	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001822 MW-1 02/09/16, 10:17

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	3.9	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	16.	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	24.3	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	7.45	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	10.5	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	10.5	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001823 MW-9 02/09/16, 09:17

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	< 0.5	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	4.36	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	8.23	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	1.05	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	1.05	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001824 MW-3 02/09/16, 08:29

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	0.52	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	22.3	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	11.9	mg/l		0.1	EPA 300.0	TN	02/11/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	2.18	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	2.18	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A001825 GW-4 02/10/16, 10:00

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	02/11/16
Total Organic Carbon	< 0.5	mg/l		0.5	SM 5310B	TN	02/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	TN	02/24/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	2.50	mg/l		0.05	EPA 300.0	TN	02/11/16
Sulfate	6.96	mg/l		0.1	EPA 300.0	TN	02/11/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	TN	02/11/16
Nitrate	0.323	mg/l		0.025	EPA 300.0	TN	02/11/16
Nitrate+Nitrite	0.323	mg/l		0.025	EPA 300.0	Calculated	

Aaron W. Young Laboratory Manager Am Test Inc. 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



QC Summary for sample numbers: 16-A001818 to 16-A001825

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
16-A001793	BOD	mg/l	920	840	9.1
16-A001819	Chloride	mg/l	20.5	20.6	0.49
16-A001787	Nitrate	mg/l	< 0.025	< 0.025	
16-A001819	Nitrate	mg/l	0.971	1.02	4.9
16-A001787	Nitrite	mg/l	< 0.005	< 0.005	
16-A001819	Nitrite	mg/l	< 0.005	< 0.005	
16-A001819	Sulfate	mg/l	15.7	16.0	1.9
16-A001833	Sulfate	mg/l	17.0	16.3	4.2

MATRIX SPIKES

,						
SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
16-A001389	Total Organic Carbon	mg/l	< 0.5	46.	50.	92.00 %
16-A001974	Total Organic Carbon	mg/l	1.7	47.	50.	90.60 %
16-A001983	Total Organic Carbon	mg/l	3.4	45.	50.	83.20 %
16-A002121	Chemical Oxygen Demand	mg/l	< 10	52.	50.	104.00 %
16-A002226	Chemical Oxygen Demand	mg/l	< 10	52.	50.	104.00 %
16-A001787	Nitrate	mg/l	< 0.025	1.95	2.00	97.50 %
16-A001819	Nitrate	mg/l	0.971	2.94	2.00	98.45 %
16-A001787	Nitrite	mg/l	< 0.005	2.08	2.00	104.00 %
16-A001819	Nitrite	mg/l	< 0.005	1.88	2.00	94.00 %
16-A001819	Sulfate	mg/l	15.7	17.6	2.00	95.00 %
16-A001833	Sulfate	mg/l	17.0	29.0	12.0	100.00 %

STANDARD REFERENCE MATERIALS

OTATION TO THE ENGLISH WATER				
ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Organic Carbon	mg/l	50.	45.	90.0 %
Total Organic Carbon	mg/l	50.	43.	86.0 %
Chemical Oxygen Demand	mg/l	100	100	100. %
Chemical Oxygen Demand	mg/l	100	110	110. %
Chloride	mg/l	2.00	1.96	98.0 %
Chloride	mg/l	2.00	2.13	106. %
Nitrate	mg/l	2.00	2.05	102. %
Nitrite	mg/l	2.00	2.03	102. %
Sulfate	mg/l	2.00	2.06	103. %

QC Summary for sample numbers: 16-A001818 to 16-A001825...

BLANKS

ANALYTE	UNITS	RESULT
Total Organic Carbon	mg/l	< 0.5
Total Organic Carbon	mg/l	< 0.5
Chemical Oxygen Demand	mg/l	< 10
Chemical Oxygen Demand	mg/l	< 10
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Nitrate	mg/l	< 0.025
Nitrite	mg/l	< 0.005
Sulfate	mg/l	< 0.1

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

	DODCONIM
Send Report To Michael Erdahl	
Company Friedman and Bruya, Inc.	PROJECT NA
Address 3012 16th Ave W	602
City, State, ZIP Seattle, WA 98119	REMARKS
Phone # (206) 285-8282 Fax # (206) 283-5044	Pleas

SUBCONTRACTER A	
PROJECT NAME/NO.	PO# ****
602160	D-847
REMARKS Please Lab Fi	ter rate/Nitrite

Page # of	P.12
TURNAROUND TIME	
Standard (2 Weeks) □ RUSH	
Rush charges authorized by:	
SAMPLE DISPOSAL	
☐ Dispose after 30 days	
□ Return samples	
☐ Will call with instructions	

TIME

1600

DATE

		***							ANAI	LYSES	SREG	UES'	ΓED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Total Organic Carbon	СОБ	ВОБ	Chloride	Sulfate	Sulfide	Nitrate 🛠	Nitrite *		
MW-Z	1818	2/9/16	1334	W	5	×	×	×	. >	X		×	\times		
GW-11	19		1241	1	5	\times	~	*	X	\times		X	X		
MW-7	20		1151		5	~	×	×	X	X		×	×		
MW-8	U		1058		5	~	\prec	×	\searrow	/		×	X		
MW-I	12		1017		5	×	×	×	X	X		X	\times		•
MW-9	23		0917		5	×	×	X	×	1/		×	×		
MW-3	24	(0829		5	~	~	· ×	×	×		×	×		
6W-4	25	2/10/16	1000		5	X	×	×	X	×		×	X		
						-									
														-	
		·												avada	95000000000000000000000000000000000000

Friedman & Bruya, Inc.	SIGNATURE	PRINT NAME	COMPANY
3012 16th Avenue West	Relinquished by:	Michael Erdahl	Friedman and Bruya
Seattle, WA 98119-2029	Received by:	Mackenzie Johnson	Amtest
DI (000) 005 0000			Martin and a second second

Ph. (206) 285-8282

Fax (206) 283-5044

Relinquished by: Received by:



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

February 26, 2016

Mike Erdahl Friedman & Bruya, Incorporated 3012 16th Ave. W. Seattle, WA 98119

RE: 602160

Dear Mike:

Enclosed are the results of the samples submitted to our laboratory on February 12, 2016. For your reference, these analyses have been assigned our service request number P1600714.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 9:34 am, Feb 26, 2010

Sue Anderson Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsqlobal.com

Client:

Friedman & Bruya, Incorporated

Project:

602160

Service Request No:

P1600714

CASE NARRATIVE

The samples were received intact under chain of custody on February 12, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gas (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation, however it is not part of the AlHA-LAP accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsqlobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L15-398
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-001
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 15-6
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 5-5
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

		D	LITTLE SCIVIL	Mari Rei Okt
Client:	Friedman & Bruya, Inc	orporated		Service Request: P1600714
Project ID:	602160			
Date Received:	2/12/2016			
Time Received:	09:30			
				Ŋ.
				[00]
				•
				173
		Date	Time	Y
Client Sample ID	Lab Code Matri	x Collected	Collected	RS
MW-2	P1600714-001 Wate		13:34	X
GW-11	P1600714-002 Wate	2/9/2016	1241	
MW-7	P16007 14-003 Water	r 2/9/2016	11:51	X
MW-8	P1600714-004 Web		10.34 · S	
MW-I	P1600714-005 Water	r 2/9/2016	10:17	X
MW-9		Property of		
MW-3	P16007 14-007 Wate	r 2/9/2016	08:29	X
TRIP BLANK	PIGOTA OF WAS	292016		
GW-4	P16007 14-009 Wate	r 2/10/2016	10:00	x

ي مو مرو

SUBCONTR	ACT CA	MDIE	CHAIN	OF (VICTORY
SUBCUNTR	AUI SA	MPLE	CHAIN	UP (USTUDY

																114		
								SAMPLE CHAIN OF CUSTODY							1			
Send Report To Michae	el Erdahl			SUBCONTRACTER ALS									Page # of TURNAROUND TIME *					
Company Friedman and Bruya, Inc.			1		T NAM	E/NO.				PC)#	٧٩.	X	tanda	rd (2 '	Weeks)		
Address3012 16th Ave W			602160 D-851										uthorize					
			REM	ARF	(S				<u> </u>				SAMPLE DISPOSAL					
City, State, ZIP Seattle, WA 98119 Phone # (206) 285-8282 Fax # (206) 283-5044			Please Email Results					☐ Dispose after 30 days ☐ Return samples ☐ Will call with instructions				Ï						
				<u></u>					· · ·	ANAT	VCF	S REG	TIES'		122 002		1	1016
							g		•	AIVAI	-1 OE	F		LED				
Sample ID	Lab ID	Date Sampled	Time Sampled	Mat	rix	# of jars	Dioxins/Furans	ЕРН	VPH	Nitrate	Sulfate	Alkalinity	TOC-9060M	Co.	.]	Notes
MW-2	•	2/9/16	1334	wat	er	Z	- 1							×				
GWII	2	1	1241		-	L		1						X				
MW-7	3		1151			2.								×				· ·
MW-8	Ч		1058			٦								×				
MW-1	1		1017			2								Y				
MW-9	b		0917			٤			1					×				
Mn-3	7		0629			2						<u> </u>		×			<u></u>	
Trip Blank	8		1350			ŧ				46				×				
'6w-4	4	41-14	1000	11		2				5.5				*				
			•															
· ·			<u> </u>		,,				1									
				<u>↓</u>			•										ļ	
	٠,	• •		<u>ل</u>											`			
Friedman & Bruya, Inc. 3012 16th Avenue West	Polinqui	SIGNA	TURE	=	Mi	chael E	PRIN rdahl	T NA	ME		+	Fried	COM nan a				DATE	TIME //30
Seattle, WA 98119-2029	Received l		7			-, -				•	\dashv					7	11//4	1130
Ph. (206) 285-8282	Relinquis	ned by:						<u> </u>			\dashv					+		
Fax (206) 283-5044	Received t	oy:			2	112/1	l.	097	30	Z° 46	,\							

ALS Environmental Sample Acceptance Check Form

Client: Project:		Bruya, Incorporated	•	· 	Work order:	P1600714			
- ,	s) received on	: 2/12/16		Date opened	l: 2/12/16	by:	KKEL	PE	
				•		_		•	_
			. The use of this form for c					ndication	of
compliance	or nonconformity	. Thermal preservation and	pH will only be evaluated	either at the request of t	he client and/or as re	equired by the methor		No	<u>N/A</u>
1	Wara sample	anntainana nuonoulu	marked with client sam	mlo ID2			<u>Yes</u> ⊠		
	-	ontainers arrive in go		ipie iD:			X		
		_					X		
3		of-custody papers used					☒		
	-		r tags agree with custo	dy papers?					
5	-	volume received adeq					X		
6	-	within specified holdir					X		
7	Was proper to	emperature (thermal	preservation) of cooler	at receipt adhered	to?		X		
	Cooler Ten	nperature: 2° C Bla	nk Temperature: ° C		Gel	Packs			
8	Were custody	y seals on outside of c	ooler/Box/Container?					X	
		Location of seal(s)?				Sealing Lid?			X
	Were signatur	re and date included?							X
	Were seals in								X
9	Do contain	ers have appropriate p	reservation, according	g to method/SOP o	r Client specified	l information?	X		
•		••••	submitted samples are	•					X
			ence/absence of air bul	• •			\mathbf{x}		
	· · · · · · · · · · · · · · · · · · ·				d if managame alt	a= i+?		×	
		-	that the analyst check	t the sample pri and	u <u>ii iiecessary</u> ari	ci it:			X
10	Tubes:	Are the tubes cap	-	_					
11	Badges:		roperly capped and int						X
		Are dual bed bad	ges separated and indi	vidually capped and	d intact?				X
P1600714	I-001.01	40mL VOA NP		7	A	MC 02/16/20	116	_	
P1600714		40mL VOA NP			Α				
P1600714	-002.01	40mL VOA NP		7	A	MC 02/16/20	16		
P1600714	1-002.02	40mL VOA NP			Α			_	
P1600714		40mL VOA NP		7	Α	MC 02/16/20)16		
P1600714		40mL VOA NP			A	1.40.004.00			
P1600714		40mL VOA NP	ļ ļ	7	A	MC 02/16/20)16		
P1600714		40mL VOA NP		•	A	NG 02/16/20	114		
P1600714		40mL VOA NP		7	A A	MC 02/16/20	716		
P1600714 P1600714		40mL VOA NP 40mL VOA NP	 	7	A	MC 02/16/20	116		
P1600714		40mL VOA NP	<u> </u>	<u></u>	A	1416 02/10/20			
P1600714		40mL VOA NP	 	,	A	MC 02/16/20	016		
P1600714		40mL VOA NP	<u> </u>		A				
P1600714		40mL VOA NP			A	MC 02/16/20)16		
Evala:-	ony dicarana	viac: (include lab samela	ID numbers):						
Explain	i airy uiscrepant	cies: (include lab sample	1D numbers).		-				
					·				
	_							•	

ALS Environmental Sample Acceptance Check Form

Client: Friedman & Bruya, Incorporated	Work order:	P1600714		
Project: 602160				
Sample(s) received on: 2/12/16	Date opened: 2/12/16	by:	KKELPE	

D1 (00714 000 01			-			NG 02/16/2016
P1600714-009.01 P1600714-009.02	40mL VOA NP		7		A A	MC 02/16/2016
11000714-009.02	40mL VOA NP				Α	
	-					
						
	<u> </u>					
			ĺ			
	·					
		<u> </u>		· · · · ·		
			<u> </u>	,·		
			<u> </u>			
	<u> </u>					
	<u> </u>					
	<u> </u>		L	<u> </u>		L

Explain any discrepancies: (include lab sample ID numbers):

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS Page 1 of 1

Client: Friedman & 1

Friedman & Bruya, Incorporated

Client Project ID: 602160 ALS Project ID: P1600714

Carbon Dioxide

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst: Matrix: Mike Conejo

Water

Test Notes:

Date(s) Collected: 2/9 - 2/10/16 Date Received: 2/12/16 Date Analyzed: 2/16/16

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result µg/L	MRL μg/L	Data Qualifier
MW-2	P1600714-001	0.10	13,000	1,000	
GW-11	P1600714-002	0.10	130,000	1,000	
MW-7	P1600714-003	0.10	86,000	1,000	
MW-8	P1600714-004	0.10	91,000	1,000	
MW-I	P1600714-005	0.10	120,000	1,000	
MW-9	P1600714-006	0.10	76,000	1,000	
MW-3	P1600714-007	0.10	79,000	1,000	
TRIP BLANK	P1600714-008	0.10	1,100	1,000	
GW-4	P1600714-009	0.10	29,000	1,000	
Method Control Sample	P160216-MB	0.10	ND	1,000	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client: Friedman & Bruya, Incorporated

Client Sample ID: Duplicate Lab Control Sample ALS Project ID: P1600714

Client Project ID: 602160 ALS Sample ID: P160216-DLCS

Test Code:

RSK 175

Instrument ID: HP5890A/GC10/TCD

Analyst: Matrix:

Mike Conejo

Water

Date Collected: NA

Date Received: NA Date Analyzed: 2/16/16

Volume(s) Analyzed: NA ml(s)

Test Notes:

		Spike Amount	Res	sultı			ALS			
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		ug/L	ug/L	ug/L	LCS	DLCS	Limits		Limit	Qualifier
124-38-9	Carbon Dioxide	18,300	16,400	17,500	90	96	62-139	6	24	

^{1 =} The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

602160	SAMPLE CHAIN OF CUSTODY ME	02-10-16 US/A
Send Report To Josh Be-nthal Company EPI Address 1180 NW Maple St	PROJECT NAME/NO. PO#	Page # of TURNAROUND TIME Standard (2 Weeks) RUSH Rush charges authorized by
City, State, ZIP Issaguih, WA Phone # 123-395-0510 Fax #	REMARKS Bill to SKotdal Realestate	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions
	ANALYSES REQUES	TED .

						ANALYSES REQUESTED						 	\neg							
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	cVQCs	T0C	Dissolve Nethon, Ethon, Ether	Corbon diptibe	Chloride me	Nitrate on		Notes	
MW-Z "	01 1/1	21916	1334	Water	16							X	X	X	X	X	X	Nitra meds	te and a	Alteres
GW-11	02	219116	1241	water	16							X	X	X	1 A		1 _V			
MW-7	03	2/4/16	1151	water	16							X	X	X	K	X	X			
MW-8	04	219116	lo58	water	16							X	X	X	K	X	X			
MW-I	05	219116	617	Water	16							X	X	X	K	X	X			
MW-9	06	2/4/16	0917	water	16							X	X	X	X	X	X			
	07	2/4/16	0829	water	16							X	X	X	X	X	1		/	
Trio Blank	08 3	214/16	1350	Water	2							X		X	X					
MW-3 Trip Blank	1 A-	2/10/16	1000	Water	16							χ	X	Ŕ	X	X	X	NI tr	to be lo	11th to fellow
											I									

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

Received by:		Samples red	ceived at 4	
Relinquished by:				
Received by:	Wattanatur	FBIN	2/10/10	1445
Relinquished by:	de 18 henre	EPI	2/19/6	1445
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME

FORMS\COC\COC.DOC

602160	SAMPLE CHAIN OF CUSTODY ME	02-10-16 U5/AIG
Send Report To Josh Bernthal Company EPI Address 1180 NW Maple St	PROJECT NAME/NO.	Page # of TURNAROUND TIME Of TURNAROUND TIME Of TURNAROUND TIME Of RUSHAND TIME RUSH Charges authorized by
City, State, ZIP Issqual WA Phone # 485-395-avlo Fax #	REMARKS Bill to 8Kotdal Real Esta	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions
		REQUESTED

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS TOTAL MANGARK	Dissolve & Mangara	09)	200		Notes
MW-2	OI P	219116	1334	water	16						X	X	X	X		
6W-11	02		1241								Ϊχ	X	X	X		
Μω-7	03		451								X	X	X	X		
MW-8	04		lo 5 8								X	X	X	X		
MW-1	05		(017								$ \chi $	X	X	K		
MW-8	06		0917								X	X	X	X		
MW-3	07 V	1	0829	V	V						X	X	X	X		
<u>μ</u> ω-3 Gω-4	09 P	2/10/16	1000	Water	16						X	X	X	X		
														•		

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE TIME
Relinquished by:	The Sherry	EPI	2/6/16 144<
Received by:	With tayon	FBtu	2/10/10/1445
Relinquished by:			
Received by:		Samples rec	eived at°C

FORMS\COC\COC.DOC

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

February 18, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 602221

Dear Mr. Bernthal:

Included are the results from the testing of material submitted on February 12, 2016 from the 69402, F&BI 602221 project. There are 21 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: Joe Sherrod EPI0218R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 12, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 602221 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
602221 -01	GW-5
602221 -02	GW-6
602221 -03	GW-3
602221 -04	GW-1
602221 -05	MW-5
602221 -06	MW-6
602221 -07	MW-14
602221 -08	GW-10
602221 -09	GW-7
602221 -10	GW-9
602221 -11	MW-13
602221 -12	GW-8
602221 -13	MW-4
602221 -14	MW-11
602221 -15	MW-10
602221 -16	MW-12

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-5	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-01
Date Analyzed:	02/15/16	Data File:	021509.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	2.5		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-6 02/12/16 02/15/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602221 602221-02
Date Analyzed:	02/15/16	Data File:	021510.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	103	76	126

4-Bromofluorobenzene	103	76	
	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	6.4		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-3 02/12/16 02/15/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602221 602221-03
Date Analyzed:	02/15/16	Data File:	021511.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	1.6		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-1	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-04
Date Analyzed:	02/15/16	Data File:	021512.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	MW-5 02/12/16 02/15/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602221 602221-05
Date Analyzed:	02/15/16	Data File:	021513.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.4		
Tetrachloroethene	70		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-6 02/12/16	Client: Project:	Environmental Partners 69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-06
Date Analyzed:	02/15/16	Data File:	021514.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	100	76	126

4-Bromofluorobenzene	100	76
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-14	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-07
Date Analyzed:	02/15/16	Data File:	021515.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

102	76	
Concentration		
ug/L (ppb)		
< 0.2		
<1		
<1		
<5		
<1		
<1		
<1		
<1		
<1		
<1		
<1		
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	02/12/16	Client: Project:	Environmental Partners 69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-08
Date Analyzed:	02/15/16	Data File:	021516.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	101	76	126

4-Bromofluorobenzene	101	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.2		
Tetrachloroethene	19		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-7 02/12/16 02/15/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602221 602221-09
Date Analyzed:	02/15/16	Data File:	021517.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	101	76	126

4-Bromofluorobenzene	101	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	1.2		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-9	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-10
Date Analyzed:	02/15/16	Data File:	021518.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	101	76	126

4-Bromofluorobenzene	101	76	
Compounds:	Concentration ug/L (ppb)		
•			
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	1.7		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-13	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-11
Date Analyzed:	02/15/16	Data File:	021519.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	3.2		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-8	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-12
Date Analyzed:	02/15/16	Data File:	021520.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

102	76	
Concentration		
ug/L (ppb)		
< 0.2		
<1		
<1		
<5		
<1		
<1		
<1		
<1		
<1		
<1		
22		
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	MW-4 02/12/16 02/15/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 602221 602221-13
Date Analyzed:	02/15/16	Data File:	021521.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.1		
Tetrachloroethene	26		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-11 02/12/16	Client: Project:	Environmental Partners 69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-14
Date Analyzed:	02/15/16	Data File:	021522.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	100	76	126

4-Bromofluorobenzene	100	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	<0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	1.2		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	2.5		
Tetrachloroethene	48		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-10	Client:	Environmental Partners
Date Received:	02/12/16	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-15
Date Analyzed:	02/15/16	Data File:	021523.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	103	76	126

4-Bromofluorobenzene	103	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	2.4		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	2.7		
Tetrachloroethene	38		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-12 02/12/16	Client: Project:	Environmental Partners 69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	602221-16
Date Analyzed:	02/15/16	Data File:	021524.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

4-Bromofluorobenzene	102	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 602221
Date Extracted:	02/15/16	Lab ID:	06-0249 mb
Date Analyzed:	02/15/16	Data File:	021508.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	101	76	126

Bromofluorobenzene 101	
Concentration ug/L (ppb)	
< 0.2	
<1	
<1	
<5	
<1	
<1	
<1	
<1	
<1	
<1	
<1	
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Date of Report: 02/18/16 Date Received: 02/12/16 Project: 69402, F&BI 602221

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 602221-01 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Vinyl chloride	ug/L (ppb)	50	< 0.2	114	111	61-139	3
Chloroethane	ug/L (ppb)	50	<1	110	109	55-149	1
1,1-Dichloroethene	ug/L (ppb)	50	<1	108	106	71-123	2
Methylene chloride	ug/L (ppb)	50	<5	113	110	61-126	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	104	103	72-122	1
1,1-Dichloroethane	ug/L (ppb)	50	<1	105	102	79-113	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	106	103	63-126	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	94	92	70-119	2
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	117	114	75-121	3
Trichloroethene	ug/L (ppb)	50	<1	109	105	75-109	4
Tetrachloroethene	ug/L (ppb)	50	2.5	97	96	72-113	1

ENVIRONMENTAL CHEMISTS

Date of Report: 02/18/16 Date Received: 02/12/16 Project: 69402, F&BI 602221

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

	Percent								
	Reporting	Spike	Recovery	Acceptance					
Analyte	Units	Level	LCS	Criteria					
Vinyl chloride	ug/L (ppb)	50	109	70-119					
Chloroethane	ug/L (ppb)	50	105	66-149					
1,1-Dichloroethene	ug/L (ppb)	50	103	75-119					
Methylene chloride	ug/L (ppb)	50	107	63-132					
trans-1,2-Dichloroethene	ug/L (ppb)	50	100	76-118					
1,1-Dichloroethane	ug/L (ppb)	50	101	80-116					
cis-1,2-Dichloroethene	ug/L (ppb)	50	101	80-112					
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	89	79-109					
1,1,1-Trichloroethane	ug/L (ppb)	50	112	80-116					
Trichloroethene	ug/L (ppb)	50	102	77-108					
Tetrachloroethene	ug/L (ppb)	50	94	78-109					

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ${\it ca}$ The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

602221 SA	MPLE CHAIN OF CUSTODY	ME 2/12/16 /4
Send Report To Josh Berthal Company EPI Address 1180 NW Maple 87 Suite 360	PROJECT NAME/NO.	Page #
City, State, ZIP Issayuh, WA Phone #425-395-00lo Fax #	REMARKS Bill to SKotdal Real Est	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions

	T					ANALYSES REQUESTED												
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	NOCi					Notes	
6w-5	OIA-F	2/10/16	1728	water	4							X						
Gw-6	02	2/10/16	1159	water	4							X						
Gw-3	03	2/10/16	1134	water	4							X						
Gw-1	04	2/10/16	1049	water	4							X						
Mw-5	05	2/11/16	1215	water	4							X						
MW-G	06	2/11/16	1046	water	4							X						
MW-14	07	2/11/16	0954	water	4							X						·
GW-10	08	2/11/16	0712	water	4							Χ						
6w-7		2/11/16		water	4							X						
Gw-9	10	2/11/16	0843	water	4		-					X		***		ved	at <u>2</u>	°C

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Joe Shend	EPI	2/12/16	12:15
Received by:	VIN H	FBF	2/2/16	15:20
Relinquished by:			7 1	
Received by:				

FORMS\COC\COC.DOC

602291				SAMPLE (CHAIN O	F C	cus	то	DΥ		M	Ē,	æ/	12/11	5	V 4
Send Report To Josh Company EPT Address 1180 NW			Su le Ble	PROJEC	ERS (sign CT NAME 6 2			J	a	8		PO#			TURN tandard USH	JAROUND TIME (2 Weeks) es authorized by
City, State, ZIP Issagul, WA Phone # Fax #			REMAR B.(1		5k	(ot	kl	Re	al B	7-le	•			dispose Leturn s	PLE DISPOSAL after 30 days amples with instructions	
										ANAL	YSES	REQU	EST	ED	-	Τ
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	PH-Diesel	H-Gasoline	EX by 8021B	Cs by8260	OCs by 8270	HFS	3	:			Notes

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	cVocs			Not	es
MW-13		2/4/16		water	4							X				
Gw-8	12	2/11/16	1327	water	4							χ				
MW-4	13	2/12/16	OPOP	water	4							X				"
MW-11	14	2/12/16	0841	Water	4							X				
MW-10				water	4							X				
MW-12	16	2/12/16	0947	water	4							X			-	
															ad at 2	°C

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE PRINT NAME COMPANY DATE TIME
Relinquished by:

Received by:

Received by:

Received by:

Received by:

FORMS\COC\COC.DOC

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

March 31, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 603016

Dear Mr. Bernthal:

Included are the results from the testing of material submitted on March 1, 2016 from the 69402, F&BI 603016 project. There are 20 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures EPI0331R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 1, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 603016 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Partners
603016-01	MW-10
603016-02	MW-4
603016-03	MW-11
603016-04	MW-14
603016-05	MW-12
603016-06	MW-6
603016-07	MW-13
603016-08	GW-10
603016-09	MW-5
603016-10	GW-8
603016-11	GW-9
603016-12	GW-7
603016-13	GW-3
603016-14	GW-1
603016-15	GW-6
603016-16	GW-5
603016-17	IJ-8:15
603016-18	IJ-10:20

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-10 03/01/16	Client: Project:	Environmental Partners 69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-01
Date Analyzed:	03/03/16	Data File:	030238.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	98	60	133

4-bromonuorobenzene	96	00
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	1.5	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	1.8	
Tetrachloroethene	38	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-4	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-02
Date Analyzed:	03/03/16	Data File:	030239.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

4-Bromoffuorobenzene	99	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	28	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-11 03/30/16	Client: Project:	Environmental Partners 69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-03
Date Analyzed:	03/03/16	Data File:	030240.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

4 Di dillolludi obclizelle	33	00	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	1.1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	2.2		
Tetrachloroethene	57		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-14	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-04
Date Analyzed:	03/03/16	Data File:	030241.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

4-Bromoffuorobenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-12	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-05
Date Analyzed:	03/03/16	Data File:	030242.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

4-Bromofluorobenzene	100	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-6	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-06
Date Analyzed:	03/03/16	Data File:	030243.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

4 Di omondo obchizene	100	00
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-13	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-07
Date Analyzed:	03/03/16	Data File:	030244.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

4-Bromofluorobenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	3.3		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-10	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-08
Date Analyzed:	03/03/16	Data File:	030245.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

4-Bromofluorobenzene	100	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.2		
Tetrachloroethene	27		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-5	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-09
Date Analyzed:	03/03/16	Data File:	030246.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Concentration ug/L (ppb)	
Vinyl chloride <0.2	
Chloroethane <1	
1,1-Dichloroethene <1	
Methylene chloride <5	
trans-1,2-Dichloroethene <1	
1,1-Dichloroethane <1	
cis-1,2-Dichloroethene <1	
1,2-Dichloroethane (EDC) <1	
1,1,1-Trichloroethane <1	
Trichloroethene <1	
Tetrachloroethene 50	

ENVIRONMENTAL CHEMISTS

GW-8	Client:	Environmental Partners 69402, F&BI 603016
	3	603016-10
03/03/16	Data File:	030247.D
Water	Instrument:	GCMS4
ug/L (ppb)	Operator:	JS
	03/01/16 03/02/16 03/03/16 Water	03/01/16 Project: 03/02/16 Lab ID: 03/03/16 Data File: Water Instrument:

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

4-Bromoffuorobenzene	99	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	21	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-9 03/01/16 03/02/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 603016 603016-11
Date Analyzed:	03/03/16	Data File:	030248.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

4-Di ollioli do obelizelle	101	00
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	1.3	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	GW-7 03/01/16	Client: Project:	Environmental Partners 69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-12
Date Analyzed:	03/03/16	Data File:	030249.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	GW-3 03/01/16	Client: Project:	Environmental Partners 69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-13
Date Analyzed:	03/03/16	Data File:	030250.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

ENVIRONMENTAL CHEMISTS

Client Sample ID:		Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-14
Date Analyzed:	03/03/16	Data File:	030251.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluor obenzene	99	60	133

4-Bromofluor obenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichlor oethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	GW-6 03/30/16	Client: Project:	Environmental Partners 69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-15
Date Analyzed:	03/03/16	Data File:	030252.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

4-Bromofluorobenzene	100	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	6.1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-5	Client:	Environmental Partners
Date Received:	03/01/16	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	603016-16
Date Analyzed:	03/03/16	Data File:	030253.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

4-Bromofluorobenzene	99	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	2.5		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 603016
Date Extracted:	03/02/16	Lab ID:	06-0380 mb
Date Analyzed:	03/02/16	Data File:	030213.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	115	63	127
4-Bromofluorobenzene	100	60	133

Concentration ug/L (ppb)
< 0.2
<1
<1
<5
<1
<1
<1
<1
<1
<1
<1

ENVIRONMENTAL CHEMISTS

Date of Report: 03/31/16 Date Received: 03/01/16 Project: 69402, F&BI 603016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 603017-05 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Vinyl chloride	ug/L (ppb)	50	< 0.2	105	36-166
Chloroethane	ug/L (ppb)	50	<1	123	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	111	60-136
Methylene chloride	ug/L (ppb)	50	<5	113	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	109	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	108	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	109	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	111	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	109	60-146
Trichloroethene	ug/L (ppb)	50	<1	105	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	84	10-226

Laboratory Code: Laboratory Control Sample

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Vinyl chloride	ug/L (ppb)	50	106	107	50-154	1
Chloroethane	ug/L (ppb)	50	133	126	58-146	5
1,1-Dichloroethene	ug/L (ppb)	50	113	112	67-136	1
Methylene chloride	ug/L (ppb)	50	116	113	39-148	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	111	109	68-128	2
1,1-Dichloroethane	ug/L (ppb)	50	109	108	79-121	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	110	107	80-123	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	113	111	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	112	110	83-130	2
Trichloroethene	ug/L (ppb)	50	108	106	80-120	2
Tetrachloroethene	ug/L (ppb)	50	86	84	76-121	2

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ${\it ca}$ The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

603016 SA	MPLE CHAIN OF CUSTODY	ME O	3/01/16 VSI/
Send Report To Josh Bernthal Company EPI Address 1180 nw mapk 57 six 310	PROJECT NAME/NO. 6940 2	PO#	Page #ofof
City, State, ZIP <u>Issaguah</u> , us4 Phone # <u>425-395-uslo</u> Fax #	REMARKS B:11 to SKotdal Real	6state	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions
	ANAL	YSES REQUEST	ED

										AN/	LYS	SES I	EQU	EST	ED			<u> </u>		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	cVbCs						Rep	Notes with water or TB 3/3	s 1//6
MW-10	0 A	2/29/16	0725	water	4							X						14,	ld per I	B
MW-4	62	2/29/6	0736	water	4							X						1	3/14/1	4
MW-11	03	2/29/16	0748	water	4							X								
MW-14	171	2/29/16	0817	water	4							X								
MW-12	05	2129116	0834	water	4							X								
Mw-6	06	2129/16	0849	water	4							X							·	
MW-13	9	2129/16	0856	water	4							X								
E1U-10	OK	212416	07081	water	4							X								
Mw - 5	09	2129116	ت ⁽¹ 7ن	ion4er	4						\neg	X								
Gw-8		212914		water	ч							X		┪	Sar	:ples	rec	iveg	at _3_	_•c

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE /	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	(FOT	Paul	TIME
Received by:	Je Sherod	CFI	5/1/16	0/00
Relinquished by	(auce) farterson	Feaco	3/1/16	8:58
	·		, , ,	
Received by: Mlassam	Nhan Phan	FEBI	3/4/6	11:00

603016	SAMPLE CHAIN OF CUSTODY $M\epsilon$	03/01/16 USI
Send Report To JoSh Bern Hall Company EPT Address [180 new maple St. Suite	PROJECT NAME/NO. PO#	Page # 2 of 2 / TURNAROUND TIME Standard (2 Weeks) RUSH Rush charges authorized by
Phone # 425-395-00le Fax #	REMARKS Bill to Skotdal Real Estate	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions
	ANALYSES REQU	JESTED

·										ANA	LYS	E	EQUE	STE	D		Τ	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	cUCC5 1,8%						Notes
Gw-9	113	212916	A50	water	4							X					14	dd Report
6w-7	12	212916	1000	water	4							X						1
6w-3	13	2129116	100	water	4							X		7	1		\top	
6w-1	14	2129/16	1044	water	4							X		十	\top			
6w-6	15	2/29/16	1102	water	4							X		\top				
6w-6 Gw-5	16	2129116	1115	water	4							X						
IJ-8:15		2129/16		Soul	4							X		1		1		Hold per JB 3/11/6
FJ-10:20	18/	2129/16	0900	50.1	4					Ī		X						* *
·																		3 ·c
						İ				Ì		l		Sai	mple	s recei	vea a	

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

			
SIGNATURE	PRINT NAME	COMPANY	DATE TIME
Relinquished by:	Joe Sherrad	EPI	2746 5700
Received by:	Cameo Patterson	Seacx	3/1/10 8:38
Received by:		•	
ma lang land	Whan Phan	Fe BI	3/1/16 11:00



Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Jun 2 2016 Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Dear MICHAEL ERDAHL:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
GW-4	Water	16-A008943	DEM, MIN, NUT, CONV
GW-11	Water	16-A008944	DEM, MIN, NUT, CONV
MW-2	Water	16-A008945	DEM, MIN, NUT, CONV
MW-9	Water	16-A008946	DEM, MIN, NUT, CONV

Your samples were received on Wednesday, May 18, 2016. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,

Aaron W. Young Laboratory Manager

Project #: 605314 PO Number: D-983

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand MIN=Minerals

Am Test Inc.

13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 www.amtestlab.com



Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Project #: 605314 PO Number: D-983

All results reported on an as received basis.

Date Received: 05/18/16 Date Reported: 6/2/16

AMTEST Identification Number Client Identification

Sampling Date

16-A008943 GW-4

05/17/16, 09:17

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	MJ	05/18/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	05/18/16
Total Organic Carbon	0.79	mg/l		0.5	SM 5310B	JR	05/23/16
Chemical Oxygen Demand	18.	mg/l		10	EPA 410.4	MJ	05/23/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	11.3	mg/l		0.05	EPA 300.0	JR	05/19/16
Sulfate	13.8	mg/l		0.1	EPA 300.0	JR	05/19/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	JR	05/19/16
Nitrate	1.23	mg/l		0.025	EPA 300.0	JR	05/19/16
Nitrate+Nitrite	1.23	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date 16-A008944 GW-11 05/17/16, 10:36

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	MJ	05/18/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	05/18/16
Total Organic Carbon	0.79	mg/l		0.5	SM 5310B	JR	05/23/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	MJ	05/23/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	30.8	mg/l		0.05	EPA 300.0	JR	05/19/16
Sulfate	19.5	mg/l		0.1	EPA 300.0	JR	05/19/16

Nutrients

· · · · · · · · · · · · · · · · · · ·							
PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	JR	05/19/16
Nitrate	2.67	mg/l		0.025	EPA 300.0	JR	05/19/16
Nitrate+Nitrite	2.67	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification

16-A008945 MW-2

Sampling Date 05/17/16, 12:08

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.08	mg/l		0.05	SM 4500-S2-D	MJ	05/18/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	05/18/16
Total Organic Carbon	0.70	mg/l		0.5	SM 5310B	JR	05/23/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	MJ	05/23/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	4.50	mg/l		0.05	EPA 300.0	JR	05/19/16
Sulfate	9.41	mg/l		0.1	EPA 300.0	JR	05/19/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	JR	05/19/16
Nitrate	10.2	mg/l		0.025	EPA 300.0	JR	05/19/16
Nitrate+Nitrite	10.2	mg/l		0.025	EPA 300.0	Calculated	

AMTEST Identification Number Client Identification Sampling Date

16-A008946 MW-9 05/17/16, 13:06

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	MJ	05/18/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	05/18/16
Total Organic Carbon	< 0.5	mg/l		0.5	SM 5310B	JR	05/23/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	MJ	05/23/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	17.0	mg/l		0.05	EPA 300.0	JR	05/19/16
Sulfate	43.1	mg/l		0.1	EPA 300.0	JR	05/19/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	JR	05/19/16
Nitrate	< 0.025	mg/l		0.025	EPA 300.0	JR	05/19/16
Nitrate+Nitrite	< 0.025	mg/l		0.025	EPA 300.0	Calculated	

Aaron W. Young Laboratory Manager Am Test Inc. 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



QC Summary for sample numbers: 16-A008943 to 16-A008946

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
16-A008641	BOD	mg/l	< 2	< 2	
16-A009164	Nitrate	mg/l	1.89	1.92	1.6
16-A009164	Nitrite	mg/l	0.010	0.017	52.

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
16-A008751	Total Organic Carbon	mg/l	2.7	43.	38.	106.05 %
16-A009167	Total Organic Carbon	mg/l	1.6	42.	38.	106.32 %
16-A009177	Total Organic Carbon	mg/l	3.3	41.	38.	99.21 %
16-A008943	Chemical Oxygen Demand	mg/l	18.	69.	50.	102.00 %
16-A009385	Chemical Oxygen Demand	mg/l	13.	64.	50.	102.00 %
16-A009164	Nitrate	mg/l	1.89	4.08	2.00	109.50 %
16-A009164	Nitrite	mg/l	0.010	1.92	2.00	95.50 %

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
BOD	mg/l	200	170	85.0 %
Total Organic Carbon	mg/l	75.	87.	116. %
Total Organic Carbon	mg/l	75.	83.	111. %
Total Organic Carbon	mg/l	75.	83.	111. %
Chemical Oxygen Demand	mg/l	100	110	110. %
Chemical Oxygen Demand	mg/l	100	100	100. %
Chloride	mg/l	2.00	2.12	106. %
Nitrate	mg/l	2.00	2.10	105. %
Nitrate	mg/l	2.00	2.14	107. %
Nitrite	mg/l	2.00	2.10	105. %
Nitrite	mg/l	2.00	2.12	106. %
Total Sulfide	mg/l	0.39	0.40	103. %
Total Sulfide	mg/l	0.39	0.38	97.4 %
Sulfate	mg/l	2.00	2.09	104. %
Sulfate	mg/l	2.00	2.15	108. %

BLANKS

ANALYTE	UNITS	RESULT
BOD	mg/l	< 2
Total Organic Carbon	mg/l	< 0.5
Total Organic Carbon	mg/l	< 0.5
Total Organic Carbon	mg/l	< 0.5

QC Summary for sample numbers: 16-A008943 to 16-A008946...

BLANKS continued....

ANALYTE	UNITS	RESULT
Chemical Oxygen Demand	mg/l	< 10
Chemical Oxygen Demand	mg/l	< 10
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Nitrate	mg/l	< 0.025
Nitrate	mg/l	< 0.025
Nitrite	mg/l	< 0.005
Nitrite	mg/l	< 0.005
Total Sulfide	mg/l	< 0.05
Total Sulfide	mg/l	< 0.05
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl				SUBCONTRACTER A _+ -s+								Page # of CTURNAROUND TIME							
Company Friedman and Bruya, Inc.				PROJECT NAME/NO. PO#)#		Standard (2 Weeks)							
Address 3012 16th Ave W				605314 D-98						83		Rush charges authorized by:			-				
City, State, ZIP Seattle, WA 98119				REMARKS								SAMPLE DISPOSAL Dispose after 30 days			=				
Phone # (206) 285-8282 Fax # (206) 283-5044			Please Email Results								☐ Return samples ☐ Will call with instructions								
				ANALYSES REQU						UES.	ESTED								
Sample ID	Lab ID	Date Sampled	Time Sampled	Mat	my i	# of jars	Dioxins/Furans	EPH	VPH	Nitrites Nitrate	Sulfate Sulfate	Rod Alkalinity	TOC-9060M	(O)	77)"S	Chloride		Notes	
8943 GW-4		5/17/16	0917	wat	er	4				メ	×	×	X	X	*	×		•	
44 GW-11			1036			4				メ	ধ	メ	쏫	弋	X	义			
45 MW-2		. /	1208	1/		4				と と	又	义	보	×	Q	×			
410 MW-9		+	1304.	1		4				X	٧	۶.	X	X	X	×			
				<u> </u>															
				ļ												-			
					_													·	
	·	<u> </u>																	
·					\dashv														
																			-
										-									
									•						\				
Friedman & Bruya, Inc. 3012 16th Avenue West	SIGNATURE Relinquished by:										MPANY DATE TIME and Bruya 5/18/16 6650 AM								
Seattle, WA 98119-2029 Received by:															,	6650			
Ph. (206) 285-8282 Relinquished by:				\dashv	17,4	VI CON	· K	Alx		0.	8					101	18/10	103	<u> </u>
Fax (206) 283-5044	Received b	у:				· · · · · · · · · · · · · · · · · · ·		-			_				· · · · · · · · · · · · · · · · · · ·	-	· · · ·		
	1 .			- 1							- 1					1		1	



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

June 3, 2016

Mike Erdahl Friedman & Bruya, Incorporated 3012 16th Ave. W. Seattle, WA 98119

RE: 605343

Dear Mike:

Enclosed are the results of the samples submitted to our laboratory on May 20, 2016. For your reference, these analyses have been assigned our service request number P1602603.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 12:48 pm, Jun 03, 2016

Sue Anderson Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161

F: +1 805 526 7270 www.alsglobal.com

Client:

Friedman & Bruya, Incorporated

Project:

605343

Service Request No:

P1602603

CASE NARRATIVE

The samples were received intact under chain of custody on May 20, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gas (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation, however it is not part of the AIHA-LAP accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270

www.alsglobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alha	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L15-398
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-003
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 15-6
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 5-5
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Project ID:	Friedman & Bruya, I 605343	ncorporated		Service Request: P1602603					
Date Received: Time Received:	5/20/2016 09:50								
				- CO3					
Client Sample ID	Lab Code Ma	Date trix Collected	Time Collected	RSK 175					
MW-I	· · · · · · · · · · · · · · · · · · ·	ater 5/18/2016	06:40	x x					
MW-7 MW-8	- P1602603-004 W	ater 5/18/2016	08:02	X					
MW-3	P1602603-005 W	ater 5/18/2016	09:46	X					

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

P1692693

Send Report To Mich	ael Erdahl			SU	BCO	NTRAC	TER	ALS	- Si	V	alles				P	age#	ROUND	_of
Company Friedman and Bruya, Inc. Address 3012 16th Ave W				PR	CATC!	YI IAMI	MEANC 534).			PO - 90)#		10	Stands RUSH	ard (2	Weeks)	
City, State, ZIP Seattl	e. WA 981	19		RE	MAR	KS				<u> </u>	·	 -			S	AMP	LE DISP	OSAL
Phone #(206) 285-828	2_Fax#	(206) 283	5044	L		Please	Email	Resu	ılta					.0	Return	sam	r 30 dayı ples h instruc	
										ANA	LYSE	SREC	UES	TED	-			
Sample ID	Lab ID	Date Sampled	Time Sampled	Ma	atrix	# of jars	Dioxins/Furans	EPH	ТЪН			,	TOC-9060M	T				Notes
MW-1	1	5/18/16	0640	WA	er	Z								×	 	 	 	
MW-15	1 2		6720	1		Z											 	-
MW-7	3		UBOZ			2								y	1	 	 	
MW-8	4		0841			2										<u> </u>	-	
MW-3	5		0946		,	2								Y		<u> </u>	<u> </u>	
				-									•	 		· -	-	
																<u>·</u>	-	
		ŀ						- 1						<u> </u>	-			
	·				_		-								-		<u> </u>	
•										 				 :	-			
					一			-+					\dashv			<u> </u>		
					7	- 			_					<u> </u>	<u> </u>			
					7		1					- 1						
riedman & Bruya, Inc. 013 16th Avenue West	Rolinguich	SIGNAT	TURE	1	Mic	hael E	PRIN	T NA	MR			riedn	COM	PAN		•	DATE	TIME
eatile, WA 98119-2029	Received by				4	7_	20/16	1	518		-	10	- /	mo' Da	uya	15	19/16	0950
h. (206) 285-8282	Relinquishe					- 4	ryle	-4	עני		16	2 GA	<u> </u>		<u>.</u>	+		
ax (206) 283-5044	Received by	 			ļ													

ALS Environmental Sample Acceptance Check Form

Client:	Friedman &	Bruya, Incorporated			Work order:	P1602603			
Project:	605343								
Sample(s) received o	n: <u>5/20/16</u>		Date opened:	5/20/16	by:	KKEL	PE	
<i>Note:</i> This i	form is used for	all samples received by A	LS. The use of this form for cus	stody seals is strictly me	eant to indicate pres	sence/absence and r	ot as an ir	ndication	of
compliance	or nonconformi	ty. Thermal preservation	and pH will only be evaluated ei	ther at the request of th	e client and/or as re	equired by the meth		B1 .	N 1/4
	***		1 1 24 8 .	1 100			<u>Yes</u>	No	<u>N/A</u>
1	_		y marked with client samp	ole ID?					
2	-	containers arrive in					X		-
3		-of-custody papers u					X		
4	-		l/or tags agree with custod	ly papers?			X		
5	-	volume received ad	•				X		
6	-	within specified hole	*				\boxtimes		
7	Was proper	temperature (therma	al preservation) of cooler	at receipt adhered t			X		
	Cooler Te	emperature: 6° C I	Blank Temperature: ° C		Gel	Packs			_
8	Were custoo	dy seals on outside of	f cooler/Box/Container?					X	
		Location of seal(s	s)?			Sealing Lid?			X
	Were signate	ure and date included	!?						X
	Were seals i	ntact?							\boxtimes
9	Do contain	ners have appropriate	preservation, according	to method/SOP or	Client specified	d information?	X		
	Is there a cl	ient indication that th	e submitted samples are p	H preserved?					X
	Were VOA	vials checked for pro	esence/absence of air bubl	bles?			X		
	Does the clie	ent/method/SOP requ	ire that the analyst check	the sample pH and	if necessary alt	er it?		X	
10	Tubes:	-	apped and intact?	• •	-				X
11	Badges:		s properly capped and inta	et?					X
11	Dauges.	_	adges separated and indiv		intact?				×
		Are dual bed b	auges separated and murv	idually capped and	mact.				
P1602603	3-001.01	40mL VOA NP	7		Α	MC 5/27/20	16		
P1602603		40mL VOA NP			Α				
P1602603		40mL VOA NP	7		A	MC 5/27/20	16		
P1602603		40mL VOA NP			A	MC 5 7 7 7 0	16		
P1602603 P1602603		40mL VOA NP	7		A	MC 5/27/20	10		_
P1602603		40mL VOA NP 40mL VOA NP	7		A	MC 5/27/20	16		-
P1602603		40mL VOA NP			A	10000000			
P1602603		40mL VOA NP	7		A	MC 5/27/20	16		
P1602603	3-005.02	40mL VOA NP			Α				
 					-	 			
				L			_		
Explair	n any discrepai	ncies: (include lab samp	ole ID numbers):						
-									

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS Page 1 of 1

Client: Friedman & Bruya, Incorporated

Client Project ID: 605343 ALS Project ID: P1602603

Carbon Dioxide

Date(s) Collected: 5/18/16

Date Received: 5/20/16

Date Analyzed: 5/27/16

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst:

Mike Conejo

Matrix: Water Test Notes:

		Injection			
Client Sample ID	ALS Sample ID	Volume	Result	MRL	Data
		ml(s)	μ g /L	μg/L	Qualifier
MW-1	P1602603-001	0.10	110,000	1,000	
MW-15	P1602603-002	0.10	67,000	1,000	
MW-7	P1602603-003	0.10	75,000	1,000	
MW-8	P1602603-004	0.10	130,000	1,000	
MW-3	P1602603-005	0.10	100,000	1,000	
Method Control Sample	P160527-MB	0.10	ND	1,000	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client: Friedman & Bruya, Incorporated

Client Sample ID: Duplicate Lab Control Sample ALS Project ID: P1602603

Client Project ID: 605343 ALS Sample ID: P160527-DLCS

Test Code: **RSK 175**

Date Collected: NA Instrument ID: HP5890A/GC10/TCD Date Received: NA Date Analyzed: 5/27/16 Analyst: Mike Conejo Volume(s) Analyzed: Matrix: Water NA ml(s)

Test Notes:

		Spike Amount	Res	sultı			ALS			
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		ug/L	ug/L	ug/L	LCS	DLCS	Limits		Limit	Qualifier
124-38-9	Carbon Dioxide	22,900	17,700	21,200	77	93	62-139	19	24	

^{1 =} The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

May 27, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 605406

Dear Mr. Bernthal:

Included are the results from the testing of material submitted on May 20, 2016 from the 69402, F&BI 605406 project. There are 38 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures EPI0527R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 20, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 605406 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
605406-01	GW-1:Bag
605406-02	GW-1
605406-03	GW-5:Bag
605406-04	GW-5
605406-05	GW-6:Bag
605406-06	GW-6
605406-07	GW-3:Bag
605406-08	GW-3
605406-09	MW-10:Bag
605406-10	MW-10
605406-11	GW-9:Bag
605406-12	GW-9
605406-13	MW-4:Bag
605406-14	MW-4
605406-15	GW-10:Bag
605406-16	GW-10
605406-17	MW-13:Bag
605406-18	MW-13
605406-19	GW-7:Bag
605406-20	GW-7
605406-21	GW-8:Bag
605406-22	GW-8
605406-23	MW-11:Bag
605406-24	MW-11
605406-25	MW-12:Bag
605406-26	MW-12
605406-27	MW-6:Bag
605406-28	MW-6
605406-29	MW-14:Bag
605406-30	MW-14
605406-31	MW-5:Bag
605406-32	MW-5

Methylene chloride was detected in an $8260 \mathrm{C}$ method blank. The data were flagged as due to laboratory contamination.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-01
Date Analyzed:	05/23/16	Data File:	052309.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

102	00
Concentration ug/L (ppb)	
< 0.2	
<1	
<1	
<5	
<1	
<1	
<1	
<1	
<1	
<1	
<1	
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-1 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-02 Date Analyzed: 05/23/16 Data File: 052310.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	103	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-5:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-03 Date Analyzed: 05/23/16 Data File: 052311.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.8

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-5 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-04 Date Analyzed: 05/23/16 Data File: 052312.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	104	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 3.1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-6:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-05 Date Analyzed: 05/23/16 Data File: 052313.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

	Lower	∪pper
% Recovery:	Limit:	Limit:
100	57	121
103	63	127
103	60	133
	100 103	% Recovery: Limit: 100 57 103 63

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 5.1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-6 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-06 Date Analyzed: 05/23/16 Data File: 052314.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

romofluorobenzene Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 6.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-3:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-07 Date Analyzed: 05/23/16 Data File: 052315.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-3 Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-08 Date Analyzed: 05/23/16 Data File: 052316.D Instrument: Matrix: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	103	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 2.0

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-10:Bag Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-09 Date Analyzed: 05/23/16 Data File: 052317.D Instrument: Matrix: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	104	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 12 Tetrachloroethene 10

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-10 05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-10
Date Analyzed:	05/23/16	Data File:	052318.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	104	60	133

4-Di omonuoi obenzene	104	U
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	5.5	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	73	
Tetrachloroethene	7.0	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-9:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-11 Date Analyzed: 05/23/16 Data File: 052319.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene 1.4 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	GW-9 05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-12
Date Analyzed:	05/23/16	Data File:	052320.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

4-Di ollioliuoi obelizelle	103	
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	1.7	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-4:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-13 Date Analyzed: 05/23/16 Data File: 052328.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzen e	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

MW-4 Client Sample ID: Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-14 Date Analyzed: 05/23/16 Data File: 052329.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	107	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene 1.3 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 5.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-10:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-15 Date Analyzed: 05/23/16 Data File: 052330.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

	Lower	∪pper
% Recovery:	Limit:	Limit:
101	57	121
103	63	127
105	60	133
	101 103	% Recovery: Limit: 101 57 103 63

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 1.1 Tetrachlor oethene 5.8

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-10 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-16 Date Analyzed: 05/23/16 Data File: 052331.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 1.3 Tetrachloroethene 8.5

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-13:Bag Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-17 Date Analyzed: 05/23/16 Data File: 052332.D Instrument: Matrix: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.5

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-13 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-18 Date Analyzed: 05/23/16 Data File: 052333.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

	Lower	∪pper
% Recovery:	Limit:	Limit:
101	57	121
103	63	127
106	60	133
	101 103	% Recovery: Limit: 101 57 103 63

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 2.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-7:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-19 Date Analyzed: 05/23/16 Data File: 052334.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

	Lower	∪pper
% Recovery:	Limit:	Limit:
98	57	121
104	63	127
106	60	133
	98 104	% Recovery: Limit: 98 57 104 63

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethen e <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-7 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-20 Date Analyzed: 05/23/16 Data File: 052335.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 2.0

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-8: Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-21 Date Analyzed: 05/23/16 Data File: 052336.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 21

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: GW-8 Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-22 Date Analyzed: 05/23/16 Data File: 052337.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 25

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-11:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-23 Date Analyzed: 05/23/16 Data File: 052338.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	107	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 2.4 Tetrachloroethene 36

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-11 05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-24
Date Analyzed:	05/23/16	Data File:	052339.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

4-Di omonuoi obenzene	103	
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	1.0	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	2.8	
Tetrachloroethene	62	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-12:Bag Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-25 Date Analyzed: 05/23/16 Data File: 052340.D Matrix: Instrument: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	107	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.7

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

MW-12 Client Sample ID: Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-26 Date Analyzed: 05/23/16 Data File: 052341.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene 1.7

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-27
Date Analyzed:	05/23/16	Data File:	052342.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

1 Bromonaurobenzene	100
Compounds:	Concentration ug/L (ppb)
Vinyl chloride	< 0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-6	Client:	Environmental Partners
Date Received:	05/20/16	Project:	69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-28
Date Analyzed:	05/23/16	Data File:	052343.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

4-Bromofluorobenzene	105	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichlor oethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-14:Bag 05/20/16	Client: Project:	Environmental Partners 69402, F&BI 605406
Date Extracted:	05/23/16	Lab ID:	605406-29
Date Analyzed:	05/23/16	Data File:	052344.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

4-Bromofluorobenzene	105	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

MW-14 Client Sample ID: Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-30 Date Analyzed: 05/24/16 Data File: 052345.D Instrument: Matrix: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-5:Bag Client: **Environmental Partners** Date Received: 05/20/16 Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 605406-31 Date Analyzed: 05/24/16 Data File: 052346.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 1.0 Tetrachloroethene 8.6

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

MW-5 Client Sample ID: Client: **Environmental Partners** Date Received: Project: 05/20/16 69402, F&BI 605406 Lab ID: Date Extracted: 05/23/16 605406-32 Date Analyzed: 05/24/16 Data File: 052347.D Instrument: Matrix: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene 1.2 Tetrachloroethene 26

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank Client: **Environmental Partners** Date Received: Project: Not Applicable 69402, F&BI 605406 05/23/16 Lab ID: 06-1022 mb Date Extracted: Date Analyzed: 05/23/16 Data File: 052307.D Matrix: Instrument: Water GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	105	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride < 5 trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank Client: **Environmental Partners** Date Received: Not Applicable Project: 69402, F&BI 605406 05/23/16 Lab ID: Date Extracted: 06-1025 mb Date Analyzed: 05/23/16 Data File: 052327.D Matrix: Water Instrument: GCMS4 Units: ug/L (ppb) Operator: JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	105	63	127
4-Bromofluorobenzene	106	60	133

Concentration Compounds: ug/L (ppb) Vinyl chloride < 0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride 6.2 lc trans-1,2-Dichloroethene <1 1.1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1

ENVIRONMENTAL CHEMISTS

Date of Report: 05/27/16 Date Received: 05/20/16 Project: 69402, F&BI 605406

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 605394-01 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Vinyl chloride	ug/L (ppb)	50	< 0.2	112	36-166
Chloroethane	ug/L (ppb)	50	<1	124	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	100	60-136
Methylene chloride	ug/L (ppb)	50	<5	109	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	102	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	104	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	98	60-146
Trichloroethene	ug/L (ppb)	50	<1	101	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	96	10-226

Laboratory Code: Laboratory Control Sample

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Vinyl chloride	ug/L (ppb)	50	94	108	50-154	14
Chloroethane	ug/L (ppb)	50	111	118	58-146	6
1,1-Dichloroethene	ug/L (ppb)	50	98	97	67-136	1
Methylene chloride	ug/L (ppb)	50	106	104	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	103	97	68-128	6
1,1-Dichloroethane	ug/L (ppb)	50	102	98	79-121	4
cis-1,2-Dichloroethene	ug/L (ppb)	50	104	101	80-123	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	94	90	73-132	4
1,1,1-Trichloroethane	ug/L (ppb)	50	100	97	83-130	3
Trichloroethene	ug/L (ppb)	50	101	97	80-120	4
Tetrachloroethene	ug/L (ppb)	50	96	92	76-121	4

ENVIRONMENTAL CHEMISTS

Date of Report: 05/27/16 Date Received: 05/20/16 Project: 69402, F&BI 605406

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 605406-32 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recov ery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Vinyl chloride	ug/L (ppb)	50	< 0.2	112	36-166
Chloroethane	ug/L (ppb)	50	<1	124	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	99	60-136
Methylene chloride	ug/L (ppb)	50	<5	111	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	103	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	105	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	94	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	99	60-146
Trichloroethene	ug/L (ppb)	50	1.2	100	66-135
Tetrachloroethene	ug/L (ppb)	50	26	94 b	10-226

Laboratory Code: Laboratory Control Sample

			Percent	Percent			
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD	
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)	
Vinyl chloride	ug/L (ppb)	50	111	111	50-154	0	
Chloroethane	ug/L (ppb)	50	123	120	58-146	2	
1,1-Dichloroethene	ug/L (ppb)	50	101	100	67-136	1	
Methylene chloride	ug/L (ppb)	50	103	100	39-148	3	
trans-1,2-Dichloroethene	ug/L (ppb)	50	103	102	68-128	1	
1,1-Dichloroethane	ug/L (ppb)	50	104	102	79-121	2	
cis-1,2-Dichloroethene	ug/L (ppb)	50	107	106	80-123	1	
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	97	95	73-132	2	
1,1,1-Trichloroethane	ug/L (ppb)	50	101	101	83-130	0	
Trichloroethene	ug/L (ppb)	50	104	103	80-120	1	
Tetrachloroethene	ug/L (ppb)	50	98	98	76-121	0	

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

605406				SAMPLE (CHAIN C	F (CUS	то	DY	. Mē	5/2	116			V6	
Send Report To Jo Sh Company EPI Address 1180 NW	PROJEC	PROJECT NAME/NO. PO#								Page #of TURNAROUND TIME Description of TURNAROUND TIME Rushdard (2 Weeks) RUSH Rush charges authorized by						
City, State, ZIP <u>Issage</u> Phone # <u>425-395-co</u>	REMAI		tda	1	120	.(Es.	fate			🗆 F	Dispose Return s	IPLE DISPOSAL after 30 days amples with instructions			
										ANAI	YSES	REQ	UEST	ED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	rph-Diesel	PH-Gasoline	EX by 8021B	OCs by8260	OCs by 8270	HFS					Notes

	7	-	·					<u> </u>				AN/	ALYS	SES I	REQ	JES1	ED					
Sample ID	Lab ID		Date Sampled	Time Sampled	Sam	ple Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	e VOC s							Notes	;
Gw-1: Bag	01 A	- 10	5/18/16	1046	W	eter	4							X								
Gw-1	oz		5(18116	1104		1	1							1								 -
GW-5: Bag	03			1120																		
6w-5	04			1134																		
GW6: Bag	05			1155																		
Gw-1 Gw-5: Bag Gw-5 Gw-6: Bag Gw-6?	06			1210										1								
6w-3: Bag	67			1240																<u> </u>		
5 Gw S. Bay Gw-3	68		V	1252										T								
6w-3: Bag 55Gw-3: Bag Gw-3 Mw-10: Bag Mw-10	09		51 14116	0640										1						red at	4	°C
Mw-10	10			0658	V		V							V			am	ues l	ecel	HO AL		<u> </u>

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE /	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Joe Sherod	EPT	5/20/16	· · · · · · · · · · · · · · · · · · ·
Received William	Michael Erdehl	F4 Bn	4	4
Relinquished by:				
Received by:				

605406				SAMPLE (STOD	Y U	E5/20	116	_	٧6	э Ц
Send Report To Jos Company EPI	h B	sern tha	.1	1	ERS (sign				P	O#			AROUND TIME (2 Weeks)
Address 1190 NG	ر ر	raple	87.	- 694								USH charge	es authorized by
City, State, ZIP <u>Tssa</u> Phone # <u>425-395-6</u>			18027	REMAR B.iI	KKS To	skotd.	a (Real	Este	he	□ Re	ispose a eturn sa	PLE DISPOSAL after 30 days amples with instructions
						<u> </u>		ANAI	LYSES R	EQUES 1	ΓED		
Sample ID	Lab	Date	Time	Sample Type	# of	Diesel Jasoline	by 8021B	by 8270	FS Cs				Notes

		,		, 						ANA	ALYS	SES F	REQU	EST	ED			l		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	c VOCs							Notes	s
Gw-9: Bag Gw-9	II A-D	5/2/16	0950	Water	4							X								
6w-9	12/		1012		1							1	,							
																			-	
														-		!			***	
			:																	
		·															<u> </u>			
· · · · · · · · · · · · · · · · · · ·					-	\vdash							-	- 9	amp	les r	eceiv	ed at_	4	°C
			-										_							-
		ı	B	1	1				- 1				- 1			- 1		4		

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jue Shemid	EPI	5/20116	1500
Received of	Michael Erclihl	FIRme	4	1
Relinquished by:				
Received by:				

1,05406				SAMPLE (CHAIN C)F C	US	то	DY	M	E	5/20	116	• ٧	la			
Send Report to Jo Sh Company EPT Address 180 NW	PROJEC	PROJECT NAME/NO. PO#										Page # of						
City, State, ZIP <u>Issagurh, LuA</u> 98027 Phone #425-395-oulo Fax #					rks to s	Ket.	dal	1	Pe	اء	Es	tote		c	□ Dis _l □ Ret	pose a urn sa	PLE DISPOSAL after 30 days amples with instructions	
				···						ANA	LYS	ES REC	UEST	ED				
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	PH-Diesel	H-Gasoline	X by 8021B	Cs by8260	OCs by 8270	HFS	<i>DCs</i>					Notes	

			· · · · · ·		T					<u>ANA</u>	LYS	SES I	REQU	JEST	ED			L		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	c(/DCs							Notes	S
MW-4: Bag	13 4	5/20116	0650	Water	4							X								
1w-4	14	į	0704		i							1						_		
GW-10: Bag	15		0730																~	
MW-4: Bag NW-4 GW-10: Bag GW-10	lle		0738																	
MW-13: Bag	17		0755									T								
MW-13	18		0815											_						
GW-7: Bag	19		0850																	
GW-7	20		80P0													-				
MW-13 GW-7: Bag GW-7 GW-8: Bag GW-88	21		0930									\top			Sarn	oles	ecei	ved at	Ч	_°C
GW-81	22/		0941	V								abla								·

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	The Sheme	EPI	5/2016	1500
Relinquished by:	Michael Erelih	FEBRE	4	+
Received by:				

605406				SAMPLE (CHAIN C)F C	UST	ГОD	Y I	ΙE	513	Olly	2	V	6	/()
Send Report To Jo S Company EPI Address 1180 N	w 1	Den Ha Naple	1 87:	PROJECT 694					K	H	F	PO#		□R	tandard USH h charge	AROUND TIME (2 Weeks) es authorized by
City, State, ZIP ISSA Phone # 425-395-	oolo Fa	<i>M</i> 9 x #	<i>8</i> %8	REMAR		Cotd	al	Re	اء	Es	tate			□R	ispose a eturn sa	PLE DISPOSAL after 30 days amples with instructions
		<u></u>		·					AN	ALY:	SES R	EQUE	STED)		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	PH-Diesel	- Şa	X by 8021B	Cs by 8270		∞					Notes

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	eVOC3						Notes
MW-11: Bag	23 ^A -	5/19/16	0725	Water	4							X						
MW-11: Bag MW-11	241		0746		1								_					
MW-12: Bag MW-12	25		0807															
MW-12	26		0ଥା ଥ															-
MW-6: Bag	27		0840															
MW-6	28		0857															
MW-14: Bag	29		0930															
MW-14	30		0944								1							U °C
MW-6: Bag MW-14: Bag MW-14 MW-5: Bay MW-5	31		1008									T		St	mpl	es re	ceive	d at°C
MW-5	32	\bigvee	1023	→	V									***				

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Joe Shemd	EPT	5/2016	1500
Received by Olif	Michael Erolehl	Fibre	4	4.
Relinquished by:				
Received by:				

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

September 22, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 608538

Dear Mr Bernthal:

Included are the results from the testing of material submitted on August 29, 2016 from the 69402, F&BI 608538 project. There are 31 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: Cynthia Moon EPI0922R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 29, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 608538 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
608538-01	GW-4
608538-02	MW-2
608538-03	MW-3
608538-04	MW-9
608538-05	MW-8

The samples were sent to Amtest for TOC, chloride, sulfate, nitrate, nitrite, BOD, and COD analyses. In addition, all of the samples were sent to ALS-Simi for carbon dioxide analysis. The results from Amtest and ALS are included.

Sample MW-3 was diluted due to matrix effect. The reporting limits were raised accordingly.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: GW-4 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 09/09/16 608538-01 Date Analyzed: 09/12/16 Data File: 608538-01.062

Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron62.8Manganese44.1

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-2 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 09/09/16 608538-02 Date Analyzed: 09/12/16 Data File: 608538-02.063 Matrix: Instrument: Water ICPMS2

Units: ug/L (ppb) Operator: SP

 $\begin{array}{cc} & & Concentration \\ Analyte: & & ug/L \ (ppb) \end{array}$

Iron <50 Manganese 6.41

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-3 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 09/09/16 608538-03 x10 Date Analyzed: 09/12/16 Data File: 608538-03 x10.084 Matrix: Instrument: Water ICPMS2 Units: ug/L (ppb) Operator: SP

Concentration

Analyte: ug/L (ppb)

 Iron
 79,300

 Manganese
 9,620

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-9 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 09/09/16 608538-04 Date Analyzed: 09/13/16 Data File: 608538-04.083 Matrix: Instrument: Water ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <50 Manganese 4.57

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-8 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 09/09/16 608538-05 Date Analyzed: 09/12/16 Data File: 608538-05.066

Matrix: Instrument: Water ICPMS2

Units: ug/L (ppb) Operator: SP

Concentration ug/L (ppb) Analyte:

72.1 Iron Manganese 203

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608538

Date Extracted: 09/09/16 Lab ID: I6-594 mb
Date Analyzed: 09/09/16 Data File: I6-594 mb.085
Matrix: Water Instrument: ICPMS2

Units: ug/L (ppb) Operator: SP

Concentration
Analyte: ug/L (ppb)

Iron <50 Manganese <1

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: GW-4 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/31/16 608538-01 x10 Date Analyzed: 09/01/16 Data File: 608538-01 x10.035 Matrix: Water Instrument: ICPMS2

Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <500 Manganese 332

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-2 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/31/16 608538-02 x10 Date Analyzed: 09/01/16 Data File: 608538-02 x10.044 Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Concentration

Analyte: ug/L (ppb)

Iron3,910Manganese115

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-3 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/31/16 608538-03 x10 Date Analyzed: 09/01/16 Data File: 608538-03 x10.046 Matrix: Instrument: Water ICPMS2

Units: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

 Iron
 75,600

 Manganese
 10,000

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-9 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/31/16 608538-04 x10 Date Analyzed: 09/01/16 Data File: 608538-04 x10.047 Matrix: Instrument: Water ICPMS2 Units: ug/L (ppb) Operator: SP

Concentration

Analyte: ug/L (ppb)

Iron <500 Manganese 13.5

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-8 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/31/16 608538-05 x10 Date Analyzed: 09/01/16 Data File: 608538-05 x10.048 Matrix: Water Instrument: ICPMS2

Units: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron69,200Manganese3,640

ENVIRONMENTAL CHEMISTS

Operator:

SP

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608538

Date Extracted: 08/31/16 Lab ID: I6-578 mb
Date Analyzed: 09/01/16 Data File: I6-578 mb.028
Matrix: Water Instrument: ICPMS2

Concentration

Analyte: ug/L (ppb)

ug/L (ppb)

Iron <50 Manganese <1

Units:

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-4	Client:	Environmental Partners
Date Received:	08/29/16	Project:	69402, F&BI 608538
Date Extracted:	08/30/16	Lab ID:	608538-01
Date Analyzed:	08/30/16	Data File:	083019.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	107	60	133

4-Bromofluorobenzene	107	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichlorœthane	<1		
Trichloroethene	<1		
Tetrachloroethene	11		

ENVIRONMENTAL CHEMISTS

Client Sample ID:		Client:	Environmental Partners
Date Received:	08/29/16	Project:	69402, F&BI 608538
Date Extracted:	08/30/16	Lab ID:	608538-02
Date Analyzed:	08/30/16	Data File:	083020.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	95	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	106	60	133

4-Bromofluorobenzene	106	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:		Client:	Environmental Partners
Date Received:	08/29/16	Project:	69402, F&BI 608538
Date Extracted:	08/30/16	Lab ID:	608538-03 1/5
Date Analyzed:	08/30/16	Data File:	083027.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	107	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2 j
Chloroethane	<5
1,1-Dichloroethene	<5
Methylene chloride	<25
trans-1,2-Dichloroethene	<5
1,1-Dichloroethane	<5
cis-1,2-Dichloroethene	<5
1,2-Dichloroethane (EDC)	<5
1,1,1-Trichloroethane	<5
Trichloroethene	<5
Tetrachloroethene	<5

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-9	Client:	Environmental Partners
Date Received:	08/29/16	Project:	69402, F&BI 608538
Date Extracted:	08/30/16	Lab ID:	608538-04
Date Analyzed:	08/30/16	Data File:	083028.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	108	60	133

4-Bromofluorobenzene	108	60	13
	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	MW-8 08/29/16 08/30/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 608538 608538-05
Date Analyzed:	08/30/16	Data File:	083029.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	106	60	133

Compounds: ug/L (ppb) Vinyl chloride <0.2 Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride <5 trans-1,2-Dichloroethene <1 1,1-Dichloroethane <1 1,1-Dichloroethane <1 1,2-Dichloroethane <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1 Tetrachloroethene <1	4-Bromofluorobenzene	106	60	
Chloroethane <1 1,1-Dichloroethene <1 Methylene chloride <5 trans-1,2-Dichloroethene <1 1,1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	Compounds:			
1,1-Dichloroethene <1 Methylene chloride <5 trans-1,2-Dichloroethene <1 1,1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	Vinyl chloride	< 0.2		
Methylene chloride <5 trans-1,2-Dichloroethene <1 1,1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	Chloroethane	<1		
trans-1,2-Dichloroethene <1 1,1-Dichloroethane <1 cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	1,1-Dichloroethene	<1		
1,1-Dichloroethane<1	Methylene chloride	<5		
cis-1,2-Dichloroethene <1 1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	trans-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC) <1 1,1,1-Trichloroethane <1 Trichloroethene <1	1,1-Dichloroethane	<1		
1,1,1-Trichloroethane <1 Trichloroethene <1	cis-1,2-Dichloroethene	<1		
Trichloroethene <1	1,2-Dichloroethane (EDC)	<1		
	1,1,1-Trichloroethane	<1		
Tetrachloroethene <1	Trichloroethene	<1		
	Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 608538
Date Extracted:	08/30/16	Lab ID:	06-1724 mb
Date Analyzed:	08/30/16	Data File:	083015.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	105	60	133

4-Di omonuoi obenzene	105	
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: GW-4 Client: Environmental Partners Date Received: 08/29/16 Project: 69402, F&BI 608538

 Date Extracted:
 08/30/16
 Lab ID:
 608538-01

 Date Analyzed:
 08/30/16
 Data File:
 006F0601.D

 Matrix
 Water
 Instrument:
 CC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-2 Client: Environmental Partners Date Received: 08/29/16 Project: 69402, F&BI 608538

 Date Extracted:
 08/30/16
 Lab ID:
 608538-02

 Date Analyzed:
 08/30/16
 Data File:
 007F0701.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC Units: ug/L (ppb) Operator: JS

Concentration Compounds: ug/L (ppb)

Methane <5

Ethane <10 Ethene <10

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-3 Client: Environmental Partners Date Received: 08/29/16 Project: 69402, F&BI 608538

 Date Extracted:
 08/30/16
 Lab ID:
 608538-03

 Date Analyzed:
 08/30/16
 Data File:
 008F0801.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & 620 \text{ ve} \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-3 Client: **Environmental Partners** Date Received: 08/29/16 Project: 69402, F&BI 608538 Lab ID: Date Extracted: 08/30/16 608538-03 1/10 Date Analyzed: 09/07/16 Data File: 004F0401.D Matrix: Instrument: GC8 Water Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

Methane 640 Ethane <100 Ethene <100

ENVIRONMENTAL CHEMISTS

Operator:

JS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-9 Client: Environmental Partners Date Received: 08/29/16 Project: 69402, F&BI 608538

 Date Extracted:
 08/30/16
 Lab ID:
 608538-04

 Date Analyzed:
 08/30/16
 Data File:
 009F0901.D

 Matrix:
 Water
 Instrument:
 GC8

Concentration

ug/L (ppb)

Compounds: ug/L (ppb)

Methane <5

Ethane <10 Ethene <10

Units:

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-8 Client: Environmental Partners Date Received: 08/29/16 Project: 69402, F&BI 608538

 Date Extracted:
 08/30/16
 Lab ID:
 608538-05

 Date Analyzed:
 08/30/16
 Data File:
 010F1001.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Operator:

JS

Analysis For Dissolved Gasses By RSK 175

ug/L (ppb)

Client Sample ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608538

Date Extracted: 08/30/16 Lab ID: 06-1725 mb
Date Analyzed: 08/30/16 Data File: 005F0501.D
Matrix: Water Instrument: GC8

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

Units:

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/29/16

Project: 69402, F&BI 608538

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 608594-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	5,860	220 b	112 b	70-130	65 b
Manganese	ug/L (ppb)	20	728	123 b	86 b	70-130	35 b

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	102	85-115
Manganese	ug/L (ppb)	20	103	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/29/16

Project: 69402, F&BI 608538

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 608384-61 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	170	126	119	70-130	6
Manganese	ug/L (ppb)	20	9.06	117	110	70-130	6

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	101	85-115
Manganese	ug/L (ppb)	20	101	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/29/16 Project: 69402, F&BI 608538

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 608538-02 (Matrix Spike)

Eaboratory Code. occooo oz (1)	Eastratory Code: Goodoo oz (Matrix Spine)											
				Percent								
	Reporting	Spike	Sample	Recovery	Acceptance							
Analyte	Units	Level	Result	MS	Criteria							
Vinyl chloride	ug/L (ppb)	50	< 0.2	105	36-166							
Chloroethane	ug/L (ppb)	50	<1	125	46-160							
1,1-Dichloroethene	ug/L (ppb)	50	<1	96	60-136							
Methylene chloride	ug/L (ppb)	50	<5	102	67-132							
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	91	72-129							
1,1-Dichloroethane	ug/L (ppb)	50	<1	97	70-128							
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	88	71-127							
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	92	69-133							
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	86	60-146							
Trichloroethene	ug/L (ppb)	50	<1	85	66-135							
Tetrachloroethene	ug/L (ppb)	50	<1	96	10-226							

			Percent	Percent			
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD	
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)	
Vinyl chloride	ug/L (ppb)	50	87	88	50-154	1	
Chloroethane	ug/L (ppb)	50	112	114	58-146	2	
1,1-Dichloroethene	ug/L (ppb)	50	91	91	67-136	0	
Methylene chloride	ug/L (ppb)	50	100	98	39-148	2	
trans-1,2-Dichloroethene	ug/L (ppb)	50	87	86	68-128	1	
1,1-Dichloroethane	ug/L (ppb)	50	93	93	79-121	0	
cis-1,2-Dichloroethene	ug/L (ppb)	50	85	85	80-123	0	
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	90	88	73-132	2	
1,1,1-Trichloroethane	ug/L (ppb)	50	83	83	83-130	0	
Trichloroethene	ug/L (ppb)	50	83	83	80-120	0	
Tetrachloroethene	ug/L (ppb)	50	95	93	76-121	2	

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/29/16 Project: 69402, F&BI 608538

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED GASSES USING METHOD RSK 175

Laboratory Code: 608538-05 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Methane	ug/L (ppb)	<5	<5	nm
Ethane	ug/L (ppb)	<10	<10	nm
Ethene	ug/L (ppb)	<10	<10	nm

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methane	ug/L (ppb)	59	86	86	50-150	0
Ethane	ug/L (ppb)	110	83	84	50-150	1
Ethene	ug/L (ppb)	102	108	108	50-150	0

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

September 8, 2016

Mike Erdahl Friedman & Bruya, Inc. 3012 16th Ave. W. Seattle, WA 98119

RE: 608538

Dear Mike:

Enclosed are the results of the samples submitted to our laboratory on August 31, 2016. For your reference, these analyses have been assigned our service request number P1604225.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Sue Anderson

Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

Client:

Friedman & Bruya, Inc.

Project: 608538

Service Request No: P1604225

CASE NARRATIVE

The samples were received intact under chain of custody on August 31, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gas (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation, however it is not part of the AlHA-LAP, LLC accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner (Materials') whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide capies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be unadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA-LAP, LLC	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-003
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 16-7
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 6-6
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Friedman & Bruya, Inc. Service Request: P1604225 Project ID: 608538 Date Received: 8/31/2016 Time Received: 09:40 RSK 175 - CO2 Date Time Client Sample ID Lab Code Matrix Collected Collected GW-4 P1604225-001 Water 8/29/2016 09:44 MW2= Andrews MW-3 P1604225-003 Water 8/29/2016 11:30 X MARKETER 8/29/2016 MW-8 P1604225-005 x

13:11

Water

u	
٤	
0	

SÚBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michae	l Erdahl			SUBCO	NTRAC	TER	ALS-	Sini	v.II.	~			_	P: TU	age#_ JRNAF	OUND	of	
Company Friedm		uva. Inc.		PROJEC	CT NAM	IE/NO	•	•		PO	PO#			Standard (2 Weeks)				İ
Address3012 16	oth Ave W				6089	5,38			E.	. 261	Rush charges authorized by:							
City, State, ZIP <u>Seattle, WA 98119</u> Phone #(206) 285-8282 Fax #(206) 283-5044			REMARKS Please Email Results					SAMPLE DISPOSAL Dispose after 30 days Return samples Swill call with instructions										
	·	•				Γ	·	·	ANAL	YSES	REG	UES	TED					1
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Dioxins/Furans	ЕРН	VРН	Nitrate	Sulfate ,	Alkalinity	TOC-9060M	(ala grack			1	Notes	
6W-4	١	8/20/16	0144	wto	. 2			,					Y				*****]
MW-2_	2		643		2							·	*					
MW-3	3		1130		2								×	<u> </u>	<u> </u>			
MW-9	4	<u> </u>	1220		2	L		·					17	ļ		*		
MW-8	5	1	131/	1	12	\vdash						•	· «		ļ. <u>"</u>			
				<u> </u>		\vdash	•		- 						 		<u> </u>	1
3				•														
	ļ. 				+			· ·						ļ	 			1
		,		 	 				_						 			1
		7																1
]
Friedman & Bruya, Inc. 3012 16th Avenue West	Jun 1960	SIGNA	TURK	9 N	Aichael I)T' N/	ME					IPAN and B			Jame //4	TIME	
Smittle, WA 98119-2029	Hocorved		1			, 1.	****	· 	• - •	-			····		-+7	, , , ,	750	┦"
IV. (206) 285 8282	Kelingui	hed in	<i>_</i>						<u>.</u>	,						10		1
Fax (206) 283 5044	Haceyved	pà	100000	.	1			{	/3/7	44		9	42	-	- 7	- 9-		1

ALS Environmental Sample Acceptance Check Form Work order: P1604225

	Friedman & E	Bruya, Inc.			_ Work	order:	P1604225			
Project:						_				
Sample(s	s) received on	: <u>8/31/16</u>			Date opened: 8/31/	6	by:	KKEL	PE	
<i>Note:</i> This f	form is used for a	ll samples received by AL	S. The use of this fo	orm for custody s	seals is strictly meant to it	dicate area	race/sharace and n	of as an is	dication	of
		. Thermal preservation an								
					•	•	•	<u>Yes</u>	<u>Ne</u>	NA
	=	containers properly		ent sample II)?			X		
2	Did sample c	ontainers arrive in g	ood condition?					X		
3	Were chain-o	f-custody papers use	ed and filled out	?				X		
4	Did sample co	ontainer labels and/	or tags agree wit	th custody pap	pers?			X		
5	Was sample v	volume received adec	uate for analysi	s?				X		
6	Are samples v	vithin specified holdi	ng times?					X		
7	Was proper to	emperature (thermal	preservation) o	f cooler at rec	cipt adhered to?			X		
	Cooler Ten	nperature: 1° C Bl	ank Temperatur	e: °C						
8	Were custody	seals on outside of o	cooler/Box/Cont	tainer?					X	
		Location of seal(s)	?				Scaling Lid?			X
	Were signatur	e and date included?		<u></u>						X
	Were seals int	tact?								\boxtimes
9	Do containe	ers have appropriate j	oreservation, ac	cording to m	ethod/SOP or Client	specified	information?	X		
	Is there a clie	nt indication that the	submitted samp	les are pH pr	eserved?					\boxtimes
	Were <u>VOA v</u>	rials checked for pres	ence/absence of	air bubbles?				X		
Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?										0
	Tubes:	Are the tubes car								X
	Badges:	Are the badges p	-						0	<u> </u>
••					ly capped and intact:	,				⊠
-		7 11 0 data 0 0 d 0 d 0 d	.gu 30p2 4134 2	De 234, 11002	,,					
P1604225		40mL VOA NP		7		A	MC 9/01/201	6		
P1604225		40mL VOA NP	 			<u> </u>	L			
P1604225		40mL VOA NP	+	7	 	<u>^</u>	MC 9/01/201	<u> </u>		
P1604225 P1604225		40mL VOA NP 40mL VOA NP	+	5		A .	MC 9/01/201	6		
P1604225		40mL VOA NP	† †			Ā	1		_	
P1604225		40mL VOA NP	Ī	7		Α	MC 9/01/201	6		
P1604225	-004.02	40mL VOA NP				Α				
P1604225		40mL VOA NP		7		Α	MC 9/01/201	<u>6</u>		
P1604225	-005.02	40mL VOA NP	 			Λ	_			
			 			_				
		 			 		<u> </u>	******		
Explain	any discrepanc	ies: (include lab sample	: ID numbers):		-					
			•							
					_					
							 _			

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client:

Friedman & Bruya, Inc.

Client Project ID: 608538

ALS Project ID: P1604225

Carbon Dioxide

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst:

Mike Conejo

Matrix:

Water

Date(s) Collected: 8/29/16

Date Received: \$/31/16 Date Analyzed: 9/1/16

Test Notes:

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result pg/L	MRL pg/L	Duta Qualifier
GW-4	P1604225-001	0.10	96,000	1,000	
MW-2	P1604225-002	0.10	72,000	1,000	
MW-3	P1604225-003	0.10	200,000	1,000	
MW-9	P1604225-004	0.10	110,000	1,000	
MW-8	P1604225-005	0.10	110,000	1,000	
Method Control Sample	P160901-MB	0.10	ND	1,000	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client:

Friedman & Bruya, Inc. Client Sample ID: Duplicate Lab Control Sample

Client Project ID: 608538

ALS Project ID: P1604225

ALS Sample ID: P160901-DLCS

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst:

Mike Conejo

Matrix: Test Notes:

Water

Date Collected: NA

Date Received: NA

Date Analyzed: 9/01/16

Volume(s) Analyzed: NA ml(s)

		Spike Amount	Res	Result,			ALS			
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		ug/L	ug/L	ug/L	LCS	DLCS	Limits		Limit	Qualifier
124-38-9	Carbon Dioxide	22 900	18 300	12 900	-	93	62-139		24	

^{1 =} The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.



Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Sep 20 2016 Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Dear MICHAEL ERDAHL:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
GW-4	Water	16-A023502	DEM, MIN, NUT, CONV
MW-2	Water	16-A023503	DEM, MIN, NUT, CONV
MW-3	Water	16-A023504	DEM, MIN, NUT, CONV
MW-9	Water	16-A023505	DEM, MIN, NUT, CONV
MW-8	Water	16-A023506	DEM, MIN, NUT, CONV

Your samples were received on Tuesday, August 30, 2016. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely.

Aaron W. Young Laboratory Manager

Project #: 608538 PO Number: E-259

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand

MIN=Minerals

Am Test Inc.

13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 www.amtestlab.com



Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Project #: 608538 PO Number: E-259

All results reported on an as received basis.

Date Received: 08/30/16 Date Reported: 9/20/16

AMTEST Identification Number

Client Identification GW-4

Sampling Date 08/29/16, 09:44

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

16-A023502

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	67.	mg/l		0.5	SM 5310B	CO	09/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	СО	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	11.4	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	19.6	mg/l		0.1	EPA 300.0	MJ	08/31/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	1.72	mg/l		0.025	EPA 300.0	MJ	08/31/16

16-A023503 MW-2

Sampling Date 08/29/16, 10:43

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	15.	mg/l		0.5	SM 5310B	CO	09/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	4.64	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	13.8	mg/l		0.1	EPA 300.0	MJ	08/31/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	6.38	mg/l		0.025	EPA 300.0	MJ	08/31/16

16-A023504 MW-3

Sampling Date 08/29/16, 11:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	55.	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	300	mg/l	D	2.5	SM 5310B	CO	09/16/16
Chemical Oxygen Demand	1100	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	9.88	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	0.51	mg/l		0.1	EPA 300.0	MJ	08/31/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	< 0.025	mg/l		0.025	EPA 300.0	MJ	08/31/16

16-A023505 MW-9

Sampling Date

08/29/16, 12:20

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	12.	mg/l		0.5	SM 5310B	CO	09/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	3.77	mg/l		0.05	EPA 300.0	MJ	08/30/16
Sulfate	9.57	mg/l		0.1	EPA 300.0	MJ	08/30/16

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	2.00	mg/l		0.025	EPA 300.0	MJ	08/31/16

16-A023506 MW-8

Sampling Date

08/29/16, 13:11

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.06	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	11.	mg/l		0.5	SM 5310B	CO	09/16/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	СО	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	3.76	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	9.57	mg/l		0.1	EPA 300.0	MJ	08/31/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	2.00	mg/l		0.025	EPA 300.0	MJ	08/31/16

D = The reported value is from a dilution.

Aaron W. Young Laboratory Manager Am Test Inc. 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



QC Summary for sample numbers: 16-A023502 to 16-A023506

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
16-A023503	BOD	mg/l	< 2	2.0	
16-A023505	Chloride	mg/l	3.77	3.82	1.3
16-A023506	Chloride	mg/l	3.76	3.82	1.6
16-A023505	Nitrate	mg/l	2.00	1.98	1.0
16-A023506	Nitrate	mg/l	2.00	1.98	1.0
16-A023524	Nitrate	mg/l	0.049	3.40	190
16-A023505	Nitrite	mg/l	< 0.005	< 0.005	
16-A023506	Nitrite	mg/l	< 0.005	< 0.005	
16-A023524	Nitrite	mg/l	< 0.005	< 0.005	
16-A023505	Sulfate	mg/l	9.57	10.4	8.3
16-A023517	Sulfate	mg/l	16.6	16.6	0.00
16-A023506	Sulfate	mg/l	9.57	10.4	8.3

MATRIX SPIKES

INLO					
ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
Chloride	mg/l	3.77	6.13	2.50	94.40 %
Chloride	mg/l	3.76	6.13	2.00	118.50 %
Chloride	mg/l	29.4	224.	200.	97.30 %
Nitrate	mg/l	2.00	3.91	2.00	95.50 %
Nitrate	mg/l	2.00	3.90	2.00	95.00 %
Nitrate	mg/l	3.38	5.24	2.00	93.00 %
Nitrite	mg/l	< 0.005	1.86	2.00	93.00 %
Nitrite	mg/l	< 0.005	1.86	2.00	93.00 %
Total Sulfide	mg/l	< 0.05	0.17	0.20	85.00 %
Total Sulfide	mg/l	< 0.05	0.17	0.20	85.00 %
Total Sulfide	mg/l	< 0.05	0.22	0.20	110.00 %
Total Sulfide	mg/l	< 0.05	0.20	0.20	100.00 %
Sulfate	mg/l	9.57	12.0	2.50	97.20 %
Sulfate	mg/l	16.6	28.4	12.0	98.33 %
Sulfate	mg/l	9.57	12.0	2.00	121.50 %
Sulfate	mg/l	11.5	201.	200.	94.75 %
	Chloride Chloride Chloride Nitrate Nitrate Nitrate Nitrite Total Sulfide Total Sulfide Total Sulfide Sulfate Sulfate Sulfate Sulfate Sulfate	Chloride mg/l Chloride mg/l Chloride mg/l Nitrate mg/l Nitrate mg/l Nitrate mg/l Nitrite mg/l Nitrite mg/l Total Sulfide mg/l Total Sulfide mg/l Total Sulfide mg/l Sulfate mg/l Sulfate mg/l Sulfate mg/l Sulfate mg/l	Chloride mg/l 3.77 Chloride mg/l 3.76 Chloride mg/l 29.4 Nitrate mg/l 2.00 Nitrate mg/l 2.00 Nitrate mg/l 3.38 Nitrite mg/l < 0.005	Chloride mg/l 3.77 6.13 Chloride mg/l 3.76 6.13 Chloride mg/l 29.4 224. Nitrate mg/l 2.00 3.91 Nitrate mg/l 2.00 3.90 Nitrate mg/l 3.38 5.24 Nitrite mg/l < 0.005	Chloride mg/l 3.77 6.13 2.50 Chloride mg/l 3.76 6.13 2.00 Chloride mg/l 29.4 224. 200. Nitrate mg/l 2.00 3.91 2.00 Nitrate mg/l 2.00 3.90 2.00 Nitrite mg/l 3.38 5.24 2.00 Nitrite mg/l < 0.005

QC Summary for sample numbers: 16-A023502 to 16-A023506...

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Total Sulfide	mg/l	0.17	0.17	0.00
Spike	Total Sulfide	mg/l	0.22	0.20	9.5

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
BOD	mg/l	200	200	100. %
Chemical Oxygen Demand	mg/l	100	100	100. %
Chloride	mg/l	2.00	1.94	97.0 %
Chloride	mg/l	2.00	1.94	97.0 %
Chloride	mg/l	2.00	1.96	98.0 %
Nitrate	mg/l	2.00	1.88	94.0 %
Nitrate	mg/l	2.00	1.95	97.5 %
Nitrate	mg/l	2.00	1.95	97.5 %
Nitrate	mg/l	2.00	1.94	97.0 %
Nitrite	mg/l	2.00	1.86	93.0 %
Nitrite	mg/l	2.00	1.92	96.0 %
Nitrite	mg/l	2.00	1.92	96.0 %
Nitrite	mg/l	2.00	1.93	96.5 %
Total Sulfide	mg/l	0.39	0.40	103. %
Total Sulfide	mg/l	0.39	0.42	108. %
Sulfate	mg/l	2.00	2.20	110. %
Sulfate	mg/l	2.00	1.93	96.5 %
Sulfate	mg/l	2.00	2.01	100. %
Sulfate	mg/l	2.00	1.93	96.5 %
Sulfate	mg/l	2.00	1.94	97.0 %

BLANKS

ANALYTE	UNITS	RESULT
BOD	mg/l	< 2
Chemical Oxygen Demand	mg/l	< 10
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Nitrate	mg/l	< 0.025
Nitrate	mg/l	< 0.025
Nitrate	mg/l	< 0.025
Nitrate	mg/l	< 0.025
Nitrite	mg/l	< 0.005
Nitrite	mg/l	< 0.005
Nitrite	mg/l	< 0.005
Nitrite	mg/l	< 0.005
Total Sulfide	mg/l	< 0.05
Total Sulfide	mg/l	< 0.05
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1

QC Summary for sample numbers: 16-A023502 to 16-A023506...

BLANKS continued....

ANALYTE	UNITS	RESULT
Sulfate	mg/l	< 0.1

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michae	l Erdahl			SUBCO	UBCONTRACTER Anlesh									Page # of TURNAROUND TIME						
				PROJE	CT NAM	Œ/NO				P(O# Standard (2 We									
Company Friedm	an and Br	uya, Inc.			(2063 0											uthorized	1			
Address 3012 16	6th Ave W				608538 E					L -	259.		Ku	sn cna	rges a	utnorized	by:			
City, State, ZIP_Seattle.	WA 9811	9		REMAR	REMARKS									Dispose	e after	E DISPOS 30 days	SAL			
Phone #(206) 285-8282	Fax #_	(206) 283-	5044		Please	Email	Resu	lts	-	·····			☐ Return samples ☐ Will call with instructions							
									AŅAI	LYSE	SRE	QUES	TED							
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Dioxins/Furans	Chlorde	VPH	nvtok / 2352 Nitrate 2348	Sulfate	S. K. 4 2571 Alkalinity	70℃ -9060M	COB 2110	ROD Was		1	Votes			
6W-4	235 C.L.	8/29/16	०१५५	water	- 4		メ		X	>	×	×	×	×						
MW-2	03		1043		4		X		×	አ	×	×	×	7						
MW-3	04		1130		4		×		×	አ	٧	>	又	>						
MW-9	05		1270		4		×		×	×	×	×	74	×						
MW-8	06	Ţ	131/	1	4		X		乂	义	X	×	X	Y						
Friedman & Bruya, Inc. 3012 16th Avenue West	SIGNATURE Betinquisting by:			N	Michael H		NT NA I	AME			Fried	COM man a	IPAN and B			DATE 30//6	TIME			
Seattle, WA 98119-2029	Received I	by:	y/20 /		ALANN	A <	5746				A	ATTE S	Ch. agentur.	····		130/16	1: 40 PM			
Ph. (206) 285-8282	Relinquished by:				TLHOW	***	and I supple	7,5				\(I = 2) {			139/10	9.600			
Fax (206) 283-5044	Received	Received by:															FEDEX			

608538				SAMPLE	E CHA	IN	OF (CUS	STC	DY	-	/	Me	5	d	8/0	191	16	,		15/BI
Report To JoSh Ben Hal SAMPLE				ERS (sig	nati	ure)		7								Com Switzenson			ROUND	<u> </u>	
Company EPI	Company EPI PROJEC			ROJECT NAME PO#						[Standard Turnaround RUSH Rush charges authorized by:										
Address 1180 NW Maple 87. City, State, ZIP Issaguah, WA Phone 475-395-oolo Email joshbolepi-wa. com				REMARKS INVOICE TO SKot dal Real Estate								SAMPLE DISPOSAL Dispose after 30 days Archive Samples Other									
					T						Ā	NAI	YSE	S R	EQU	EST	ED				
Sample ID	Lab II	1	Date ampled	Time Sampled	Sample Type	- 1	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	707	COD+ BOD	Total Marie	Dorsolves of pront	Mangarese	No	tes
GW-4	01 A	P81	29/16	0944	Water	.	16								1		1	1			ic
MW-2	02			1043																	
MW-3	03			1130								and the same of th	-								
Mm-9	04			1220								The state of the s	The same of the sa								
MW-8	05		<u> </u>	1311	\ <u>\</u>		V					1			V	V	V	V	′		
									_			-	_						_		
						+							+					-	+		
														Sai	nple	s rec	eive	d at	t l	6 ∘c	
																			N. C.		
Friedman & Bruya, Inc.	Relinquished by		TURE		-	_	PRIN	1	1	Ξ					COM	PAN	Y			DATE	TIME
3012 16 th Avenue West	Received by:	DIMA			J.	1 10		her	w d				t	-P					2	balu	1957
Seattle, WA 98119-2029	2 4000				VING FM					r			10	17/6	1327						
Ph. (206) 285-8282	Received by:				+							\dashv							+	-	

7 .

608538	SAMPLE				E CHAIN OF CUSTODY						MĒ	-	08	120	7/1,	6 V	37 BT 10
Report To Josh B	Ban Hal SAMPLE				PLERS (signature)								7			e# Z	
Company EPI	1 44.0	ECT NAME 40 2									Standard Turnaround RUSH Rush charges authorized by:						
Address Il So NW City, State, ZIP I 55 ac Phone 425-395-colo E	mail jost sa	RKS			7		8	INV SKO Zeal	l		SAMPLE DISPOSAL Dispose after 30 days Archive Samples Other						
										NALY							
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	PAHS 8270D STM	7	50/4/2/4/2/1/02	Methon Other	Corber digita	N ₀	otes
GW-4	01 A -	P 8/29/16	0944	Water	16									1			
MW-2	02		(043														
MW-3	03		1130										11	\prod			
MW-9	oy		1220									\prod	11	11	\prod		
MW-8	05 V	V	134	V	V							J	V	V	V		
															7.		
											7						
												amı	es	recei	ved a	<u></u> 6.c	2
								ALL CALLES									
Friedman & Bruya, Inc.	Relinquished by:	SIGNATURE			PRIN	ΙΤΝ	AMI	E				COM	IPAN	JY		DATE	TIME
3012 16 th Avenue West				Ja	2 5	5/	in	أمهر			EF	I				812416	1535
Seattle, WA 98119-2029	Relinquished by:	Mul_		VINT						FBI					8/9/16	1535	
Ph. (206) 285-8282																, ,	

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

September 22, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 608560

Dear Mr Bernthal:

Included are the results from the testing of material submitted on August 30, 2016 from the 69402, F&BI 608560 project. There are 26 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: Cynthia Moon epi0922r.doc

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 30, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 608560 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
608560-01	GW-11
608560-02	MW-7
608560-03	MW-15
608560-04	MW-1

The samples were sent to Amtest for TOC, chloride, sulfate, nitrate, nitrite, BOD, sulfide and COD analyses. In addition, all of the samples were sent to ALS-Simi for carbon dioxide analysis. The results from Amtest and ALS are included.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: GW-11 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 09/09/16 608560-01 Date Analyzed: 09/12/16 Data File: 608560-01.069 Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron90.4Manganese5.27

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-7 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 09/09/16 608560-02 Date Analyzed: 09/12/16 Data File: 608560-02.070 Matrix: Instrument: ICPMS2 Water Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 187 Manganese 15.4

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-15 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 09/09/16 608560-03 Date Analyzed: 09/12/16 Data File: 608560-03.071 Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron <50 Manganese 22.7

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW-1 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 09/09/16 608560-04 Date Analyzed: 09/12/16 Data File: 608560-04.072

Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 72.2 Manganese 1,870

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608560
Date Extracted: 09/09/16 Lab ID: I6-594 mb

Date Analyzed: 09/09/16 Data File: I6-594 mb.085 Matrix: Water Instrument: ICPMS2

Units: ug/L (ppb) Operator: SP

Concentration
Analyte: ug/L (ppb)

Iron <50 Manganese <1

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: GW-11 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560 Date Extracted: 08/31/16 Lab ID: 608560-01

Date Analyzed:09/01/16Data File:608560-01.049Matrix:WaterInstrument:ICPMS2Units:ug/L (ppb)Operator:SP

Analyte: Concentration ug/L (ppb)

Iron1,210Manganese29.4

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-7 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 08/31/16 608560-02 x10 Date Analyzed: 09/01/16 Data File: 608560-02 x10.054 Matrix: Water Instrument: ICPMS2

Units: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

 Iron
 42,000

 Manganese
 1,330

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-15 Client: **Environmental Partners** Date Received: 08/30/16 Project: 69402, F&BI 608560 Lab ID: Date Extracted: 08/31/16 608560-03 Date Analyzed: 09/01/16 Data File: 608560-03.051 Matrix: Water Instrument: ICPMS2 Units: ug/L (ppb) Operator: SP

Concentration

Analyte: ug/L (ppb)

Iron289Manganese28.0

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW-1 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560 Date Extracted: 08/31/16 Lab ID: 608560-04

Date Analyzed: 09/01/16 Data File: 608560-04.052 Matrix: Water Instrument: ICPMS2

Units: ug/L (ppb) Operator: SP

Analyte: Concentration ug/L (ppb)

Iron 263 Manganese 1,960

ENVIRONMENTAL CHEMISTS

Operator:

SP

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608560

Date Extracted: 08/31/16 Lab ID: I6-578 mb
Date Analyzed: 09/01/16 Data File: I6-578 mb.028
Matrix: Water Instrument: ICPMS2

Concentration

Analyte: ug/L (ppb)

ug/L (ppb)

Iron <50 Manganese <1

Units:

ENVIRONMENTAL CHEMISTS

Client Sample ID:		Client:	Environmental Partners
Date Received:	08/30/16	Project:	69402, F&BI 608560
Date Extracted:	08/30/16	Lab ID:	608560-01
Date Analyzed:	08/30/16	Data File:	083037.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	106	60	133

4-Dromonuorobenzene	100	00
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	19	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-7	Client:	Environmental Partners
Date Received:	08/30/16	Project:	69402, F&BI 608560
Date Extracted:	08/30/16	Lab ID:	608560-02
Date Analyzed:	08/30/16	Data File:	083038.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	105	60	133

4-Bromofluorobenzene	105	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	16		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-15 08/30/16	Client: Project:	Environmental Partners 69402, F&BI 608560
Date Extracted:	08/30/16	Lab ID:	608560-03
Date Analyzed:	08/30/16	Data File:	083039.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	106	60	133

4-Di dilidiludi dbelizelle	100	00
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	1.5	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	2.3	
Tetrachloroethene	94	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-1	Client:	Environmental Partners
Date Received:	08/30/16	Project:	69402, F&BI 608560
Date Extracted:	08/30/16	Lab ID:	608560-04
Date Analyzed:	08/30/16	Data File:	083040.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	106	60	133

4-Bromoffuorobenzene	106	60
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	18	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 608560
Date Extracted:	08/30/16	Lab ID:	06-1724 mb
Date Analyzed:	08/30/16	Data File:	083015.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	105	60	133

4-Bromofluorobenzene	105	60	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: GW-11 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560

 Date Extracted:
 08/30/16
 Lab ID:
 608560-01

 Date Analyzed:
 08/30/16
 Data File:
 012F1201.D

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-7 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560

 Date Extracted:
 08/30/16
 Lab ID:
 608560-02

 Date Analyzed:
 08/30/16
 Data File:
 013F1301.D

 Matrix
 Water
 Instrument:
 CC8

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-15 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560

 Date Extracted:
 08/30/16
 Lab ID:
 608560-03

 Date Analyzed:
 08/30/16
 Data File:
 014F1401.D

 Matrix:
 Water
 Instrument:
 GC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration Compounds: ug/L (ppb)

Methane <5 Ethane <10 Ethene <10

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: MW-1 Client: Environmental Partners Date Received: 08/30/16 Project: 69402, F&BI 608560

 Date Extracted:
 08/30/16
 Lab ID:
 608560-04

 Date Analyzed:
 08/30/16
 Data File:
 015F1501.D

 Matrix:
 Water
 Instrument:
 CC8

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Gasses By RSK 175

Client Sample ID: Method Blank Client: Environmental Partners
Date Received: Not Applicable Project: 69402, F&BI 608560

Date Extracted: 08/30/16 Lab ID: 06-1725 mb
Date Analyzed: 08/30/16 Data File: 005F0501.D
Matrix: Water Instrument: GC8

Matrix: Water Instrument: GC8 Units: ug/L (ppb) Operator: JS

Concentration

Compounds: ug/L (ppb)

 $\begin{array}{ll} \text{Methane} & <5 \\ \text{Ethane} & <10 \\ \text{Ethene} & <10 \end{array}$

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/30/16

Project: 69402, F&BI 608560

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 608594-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	5,860	220 b	112 b	70-130	65 b
Manganese	ug/L (ppb)	20	728	123 b	86 b	70-130	35 b

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	102	85-115
Manganese	ug/L (ppb)	20	103	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/30/16

Project: 69402, F&BI 608560

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 608384-61 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Iron	ug/L (ppb)	100	170	126	119	70-130	6
Manganese	ug/L (ppb)	20	9.06	117	110	70-130	6

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Iron	ug/L (ppb)	100	101	85-115
Manganese	ug/L (ppb)	20	101	85-115

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/30/16 Project: 69402, F&BI 608560

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 608538-02 (Matrix Spike)

		Percent			
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Vinyl chloride	ug/L (ppb)	50	< 0.2	105	36-166
Chloroethane	ug/L (ppb)	50	<1	125	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	96	60-136
Methylene chloride	ug/L (ppb)	50	<5	102	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	91	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	97	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	88	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	92	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	86	60-146
Trichloroethene	ug/L (ppb)	50	<1	85	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	96	10-226

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Vinyl chloride	ug/L (ppb)	50	87	88	50-154	1
Chloroethane	ug/L (ppb)	50	112	114	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	91	91	67-136	0
Methylene chloride	ug/L (ppb)	50	100	98	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	87	86	68-128	1
1,1-Dichloroethane	ug/L (ppb)	50	93	93	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	85	85	80-123	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	90	88	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	83	83	83-130	0
Trichloroethene	ug/L (ppb)	50	83	83	80-120	0
Tetrachloroethene	ug/L (ppb)	50	95	93	76-121	2

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/16 Date Received: 08/30/16 Project: 69402, F&BI 608560

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED GASSES USING METHOD RSK 175

Laboratory Code: 608538-05 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Methane	ug/L (ppb)	<5	<5	nm
Ethane	ug/L (ppb)	<10	<10	nm
Ethene	ug/L (ppb)	<10	<10	nm

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methane	ug/L (ppb)	59	86	86	50-150	0
Ethane	ug/L (ppb)	110	83	84	50-150	1
	o (FF)					

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- ${
 m jl}$ The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

September 8, 2016

Mike Erdahl Friedman & Bruya, Inc. 3012 16th Ave. W. Seattle, WA 98119

RE: 608560

Dear Mike:

Enclosed are the results of the samples submitted to our laboratory on August 31, 2016. For your reference, these analyses have been assigned our service request number P1604226.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Sue Anderson

Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

Client: Project: Friedman & Bruya, Inc.

608560

Service Request No:

P1604226

CASE NARRATIVE

The samples were received intact under chain of custody on August 31, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gases (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation, however it is not part of the AlHA-LAP, LLC accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner (Materials') whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consum, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide capies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unautherized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions cannot the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA-LAP, LLC	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/Envl.abCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/durp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-003
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 16-7
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA01627201 6-6
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsqlobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Friedman & Bruya, Inc. Service Request: P1604226 Project ID: 608560 Date Received: 8/31/2016 Time Received: 09:40 RSK 175 - CO2 Date Time Client Sample ID Lab Code Matrix Collected Collected GW-11 P1604226-001 8/30/2016 05:40 MW-7 THEODE : MW-15 X P16042 26-003 8/30/2016 07:11 Water MW-1

•	
•	•
ì	к.
į	_
Į	•

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michae	l Erdahl			SUBCO	NTRAC	TER	ALS	-5	IMI	Vall	4	_				COUND		•
Company Friedm				PROJEC	CT NAM	AE/NO).	•		P	0# .64		- • I	Standa RUSH_	rd (2 \	Weeks) uthorize		
Address 3012 16 City, State, ZIP Scattle. Phone # (206) 285-8282	WA 9811	.9	5044	REMAR		•		lts	l	,		-	- ∤ □ ¥	Dispose Leturn	after samp	E DISPO 30 days les instruct		
		· · · · · ·				T	*	1	43141	1701	VI 1313/							_
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Dioxine/Furans	ЕРН		Nitrate"		⋖					. " 1	Notes	
GW-11	Q.	2/20/4	0540	unter	2					•			Y				•	
MW-7	(V)		0630		2				į	,			Y					
MW-15	Ø		6711	ΠT	2								¥	,				
MW-1	M	J	0756	1	ν								×			,		
						•						, 10.	•					
								,										
•			***		1		,		- 1					•				
																		
<u> </u>	•			•							1						7/7 //	
		-			1			٠,	\dashv		-		\vdash				ė,	
				 -	1.						-							
		,		 	-	}												
,,,	-			 -	-		•		- 									
Friedman & Bruya, Inc. 3013 16th Avenue West	Return 194	SIONA	TURR	M	ichael k		IT NA	MR		4			PANY and Br			DATE	TIME	
Seattle, WA 98119-2029	Reserved	W .	1	************************			. T ₁								<u>\</u> \&/	<u> </u>	1310	
Ph. (206) 285-8282	Relinquia	hed by					٠	•	-	_					+	100	. Q	
Fax (206) 283-5044	Remired	by.			2		·-	- X	131	11	. 7	74	 ø		17	1 5	<u></u>	_

ALS Environmental Sample Acceptance Check Form Work order: P1604226

Project: 608560		
01.()		-
Sample(s) received on: 8/31/16 by: KKE	LPE	
Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an	indication	~f
compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.		UI .
Yes	No	<u>N/A</u>
1 Were sample containers properly marked with client sample ID?		
2 Did sample containers arrive in good condition?		
Were chain-of-custody papers used and filled out?		
4 Did sample container labels and/or tags agree with custody papers?		
5 Was sample volume received adequate for analysis?		
6 Are samples within specified holding times?		
7 Was proper temperature (thermal preservation) of cooler at receipt adhered to?		
Cooler Temperature: 1° C Blank Temperature: ° C Gel Packs	_	
8 Were custody seals on outside of cooler/Box/Container?	X	
Location of seal(s)? Sealing Lid?		X
Were signature and date included?	_	X
Were seals intact?	_	
9 Do containers have appropriate preservation, according to method/SOP or Client specified information?	_	_
Is there a client indication that the submitted samples are pH preserved?	_	X
Were VOA vials checked for presence/absence of air bubbles?		_
Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	Ø	_
		Ø
·· _	0	
11 Badges: Are the badges properly capped and intact?		
Are dual bed badges separated and individually capped and intact?		X
P1604226-001.01 40mL VOA NP 7 A MC 901/2016		
P1604226-001.02 40mL VOA NP A		
P1604226-002.01 40mL VOA NP 7 A MC 9/01/2016		
P1604226-002.02		
P1604226-003.01		
P1604226-003.02 40mL VOA NP 7 A MC 9/01/2016	-	
P1604226-004.02		
		-
Eurlain any disampanaise: (include leb comple ID numbers):		
Explain any discrepancies: (include lab sample ID numbers):		

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: Friedman & Bruya, Inc.

Client Project ID: 608560 ALS Project ID: P1604226

Carbon Dioxide

Test Code:

RSK 175

Instrument ID:

HP5890A/GC10/TCD

Analyst:

Mike Conejo

Matrix:

Water

Test Notes:

Date(s) Collected: 8/30/16 Date Received: 8/31/16 Date Analyzed: 9/1/16

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result pg/L	MRL pg/L	Duta Qualifier
GW-11	P1604226-001	0.10	110,000	1,900	
MW-7	P1604226-002	0.10	%,000	1,000	
MW-15	P1604226-003	0.10	87,000	1,000	
MW-1	P1604226-004	0.10	120,000	1,000	
Method Control Sample	P160901-MB	0.10	ND	1,000	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client: Friedman & Bruya, Inc. Client Sample ID: Duplicate Lab Control Sample

ALS Project ID: P1604226 Client Project ID: 608560

ALS Sample ID: P160901-DLCS

Test Code: **RSK 175**

Date Collected: NA Instrument ID: HP5890A/GC10/TCD Date Received: NA Analyst: Mike Conejo Date Analyzed: 9/01/16

Matrix: Water Volume(s) Analyzed: NA mi(s)

Test Notes:

		Spike Amount	Re	sult,						
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Deta
		ug/L	ug/L	ug/L	LCS	DLCS	Limits		Limit	Qualifier
124-38-9	Carbon Dioxide	22,900	18,300	18,900	20	23	62-139	4	24	

^{1 =} The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.



Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Sep 20 2016 Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Dear MICHAEL ERDAHL:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
GW-11	Water	16-A023518	DEM, MIN, NUT, CONV
MW-7	Water	16-A023519	DEM, MIN, NUT, CONV
MW-15	Water	16-A023520	DEM, MIN, NUT, CONV
MW-1	Water	16-A023521	DEM, MIN, NUT, CONV

Your samples were received on Tuesday, August 30, 2016. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,

Aaron W. Young Laboratory Manager

Project #: 608560 PO Number: E-265

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand MIN=Minerals

Am Test Inc.

13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 www.amtestlab.com



Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Attention: MICHAEL ERDAHL

Project #: 608560 PO Number: E-265

All results reported on an as received basis.

Date Received: 08/30/16 Date Reported: 9/20/16

AMTEST Identification Number Client Identification

Sampling Date

GW-11 08/30/16, 05:40

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

16-A023518

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	28.	mg/l		0.5	SM 5310B	CO	09/15/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	24.6	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	17.9	mg/l		0.1	EPA 300.0	MJ	08/31/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	3.80	mg/l		0.025	EPA 300.0	MJ	08/31/16

AMTEST Identification Number Client Identification

16-A023519 MW-7

Sampling Date 08/30/16, 06:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	15.	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	2.2	mg/l		0.5	SM 5310B	CO	09/15/16
Chemical Oxygen Demand	34.	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	267.	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	26.1	mg/l		0.1	EPA 300.0	MJ	08/31/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	3.02	mg/l		0.025	EPA 300.0	MJ	08/31/16

AMTEST Identification Number Client Identification Sampling Date

16-A023520 MW-15 08/30/16, 07:11

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	CO	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	20.	mg/l		0.5	SM 5310B	CO	09/15/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	CO	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	12.4	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	11.8	mg/l		0.1	EPA 300.0	MJ	08/31/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	1.28	mg/l		0.025	EPA 300.0	MJ	08/31/16

AMTEST Identification Number Client Identification

16-A023521 MW-1

Sampling Date 08/30/16, 07:56

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	СО	09/15/16

Demand

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
BOD	< 2	mg/l		2	SM 5210B	NG	08/31/16
Total Organic Carbon	86.	mg/l		0.5	SM 5310B	CO	09/15/16
Chemical Oxygen Demand	< 10	mg/l		10	EPA 410.4	СО	09/15/16

Minerals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Chloride	29.4	mg/l		0.05	EPA 300.0	MJ	08/31/16
Sulfate	11.5	mg/l		0.1	EPA 300.0	MJ	08/31/16

Nutrients

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Nitrite	< 0.005	mg/l		0.005	EPA 300.0	MJ	08/31/16
Nitrate	3.38	mg/l		0.025	EPA 300.0	MJ	08/31/16

Aaron W. Young Laboratory Manager Am Test Inc. 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



QC Summary for sample numbers: 16-A023518 to 16-A023521

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
16-A023503	BOD	mg/l	< 2	2.0	
16-A023619	Total Organic Carbon	mg/l	2.2	2.2	0.00
16-A023506	Chloride	mg/l	3.76	3.82	1.6
16-A023506	Nitrate	mg/l	2.00	1.98	1.0
16-A023524	Nitrate	mg/l	0.049	3.40	190
16-A023506	Nitrite	mg/l	< 0.005	< 0.005	
16-A023524	Nitrite	mg/l	< 0.005	< 0.005	
16-A023517	Sulfate	mg/l	16.6	16.6	0.00
16-A023506	Sulfate	mg/l	9.57	10.4	8.3

MATRIX SPIKES

,						
SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
16-A023506	Chloride	mg/l	3.76	6.13	2.00	118.50 %
16-A023521	Chloride	mg/l	29.4	224.	200.	97.30 %
16-A023506	Nitrate	mg/l	2.00	3.90	2.00	95.00 %
16-A023521	Nitrate	mg/l	3.38	5.24	2.00	93.00 %
16-A023506	Nitrite	mg/l	< 0.005	1.86	2.00	93.00 %
16-A024691	Total Sulfide	mg/l	< 0.05	0.17	0.20	85.00 %
16-A024691	Total Sulfide	mg/l	< 0.05	0.17	0.20	85.00 %
16-A024697	Total Sulfide	mg/l	< 0.05	0.22	0.20	110.00 %
16-A024697	Total Sulfide	mg/l	< 0.05	0.20	0.20	100.00 %
16-A023517	Sulfate	mg/l	16.6	28.4	12.0	98.33 %
16-A023506	Sulfate	mg/l	9.57	12.0	2.00	121.50 %
16-A023521	Sulfate	mg/l	11.5	201.	200.	94.75 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Total Sulfide	mg/l	0.17	0.17	0.00
Spike	Total Sulfide	ma/l	0.22	0.20	9.5

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
BOD	mg/l	200	200	100. %
Total Organic Carbon	mg/l	12.	12.	100. %
Chemical Oxygen Demand	mg/l	100	100	100. %
Chloride	mg/l	2.00	1.94	97.0 %
Chloride	mg/l	2.00	1.96	98.0 %
Nitrate	mg/l	2.00	1.95	97.5 %
Nitrate	mg/l	2.00	1.94	97.0 %
Nitrite	mg/l	2.00	1.92	96.0 %
Nitrite	mg/l	2.00	1.93	96.5 %

QC Summary for sample numbers: 16-A023518 to 16-A023521...

STANDARD REFERENCE MATERIALS continued....

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Sulfide	mg/l	0.39	0.40	103. %
Total Sulfide	mg/l	0.39	0.42	108. %
Sulfate	mg/l	2.00	2.01	100. %
Sulfate	mg/l	2.00	1.93	96.5 %
Sulfate	mg/l	2.00	1.94	97.0 %

BLANKS

ANALYTE	UNITS	RESULT
BOD	mg/l	< 2
Total Organic Carbon	mg/l	< 0.5
Chemical Oxygen Demand	mg/l	< 10
Chloride	mg/l	< 0.05
Chloride	mg/l	< 0.05
Nitrate	mg/l	< 0.025
Nitrate	mg/l	< 0.025
Nitrite	mg/l	< 0.005
Nitrite	mg/l	< 0.005
Total Sulfide	mg/l	< 0.05
Total Sulfide	mg/l	< 0.05
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1
Sulfate	mg/l	< 0.1

608560			SAMPLE	E CHAIN	OF (cus	то	DΥ			M	E	<u></u>	28,	/3e	1/10	05 V5	ATY	
Report To Jo Sh B	ecathal		SAMPL	ERS (signo	iture)		-	/	C						1	age #	of IAROUND TI	IME	
Company 1180 NW Maple St. [Address EPI				PROJECT NAME PO#						Standard Turnaround RUSH Rush charges authorized by:									
	City, State, ZIP I ssagnah, IMA 98027 Phone 425-395-colo Email soc joshbo en w. com				REMARKS INVOI										Disp Arcl	ose af nive S	MPLE DISPOSAL after 30 days Samples		
									A]	NAL	YSE	SRI	QU		ED				
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	CVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TUC. COD. BOD	Total Irm+	Dissilved Front	Chbride	Not	es	
Gw-11	0/ A-P	8130/16	0540	Witer	16					Y			X	ı	X	X			
Mw-7	02 1	ì	0630							1			1		1	ĺ			
MW-15	03		0711													П			
Mw-I	oy V	Ų	0756	V	J					J			V	V	V	V			
															-				
												Şaı	npie	s re	ceive	at_	<u>5</u> °c		
.		GNATURE			PRI	NT N	AMI	E				(COM	PAI	VΥ		DATE	TIME	
Friedman & Bruya, Inc.	Relinquished by:	The state of the s		Jue		he!	n	<u> </u>			E	<u>-P</u>	PI				813416	1156	
3012 16th Avenue West		ul		VINU FI				એ				5/30/12	1156						
Seattle, WA 98119-2029	Relinquished by:	, . 			·-·-·								•						
Ph. (206) 285-8282	Received by:																		

608560	SAMPLE CHAIN OF CUSTODY	MG 08/3	0/16 US/ALY
Report To Josh Bern that	SAMPLERS (signature)	1	Page # 2 of 2 TURNAROUND TIME
Company EPI Address 1180 NW Maple 5.	PROJECT NAME 6940 2	PO #	Standard Turnaround RUSH Rush charges authorized by:
City, State, ZIP <u>Tssaguah</u> , WA 98027 Phone 423-395-0010 Email joshba epi-wa. com	REMARKS	INVOICE TO SKOTOLAL Real Estate	SAMPLE DISPOSAL Dispose after 30 days Archive Samples Other
		ANALYSES REQUES	STED
	9 7 8	OC WIN	3 3

									ŀ	NAI	LYSE	SREC	QUI	ESTI	ED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHS 8270D SIM		Nitratinitain	Methon, Ethon, Éthon	Conton dioxide	Notes
Gw-11	OIAP	8/30/16	0540	Water	16								X	X	X		
MW-7	۵		0630											Ī	j		
MW-15	ره		0711														
MW-1	øy	↓	0756	\bigvee	V							\	V	V	V	V	
												Sar	mp	es r	ceiv	ed at	_ <i>5</i> °C

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jue Shemit	EPI	813016	1156
Received Duly	HUIV	FBI	8/30/10	1156
Relinquished by:	·			
Received by:				

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

September 30, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 608582

Dear Mr Bernthal:

Included is the amended report from the testing of material submitted on August 31, 2016 from the 69402, F&BI 608582 project. Per your request, the sample IDs have been amended.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA. INC.

Michael Erdahl Project Manager

Enclosures c: Cynthia Moon epi0907r.doc

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

September 7, 2016

Josh Bernthal, Project Manager Environmental Partners, Inc. 1180 NW Maple St, Suite 310 Issaquah, WA 98027

RE: 69402, F&BI 608582

Dear Mr Bernthal:

Included are the results from the testing of material submitted on August 31, 2016 from the 69402, F&BI 608582 project. There are 25 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: Cynthia Moon EPI0907R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 31, 2016 by Friedman & Bruya, Inc. from the Environmental Partners 69402, F&BI 608582 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	Environmental Partners
608582 -01	GW-10:Bag
608582 -02	GW-10
608582 -03	MW-12:Bag
608582 -04	MW-13:Bag
608582 -05	MW-6:Bag
608582 -06	MW-14:Bag
608582 -07	MW-11:Bag
608582 -08	MW-11
608582 -09	MW-4:Bag
608582 -10	MW-10:Bag
608582 -11	MW-5:Bag
608582 -12	MW-5
608582 -13	GW-6:Bag
608582 -14	GW-6
608582 -15	GW-5:Bag
608582 -16	GW-9:Bag
608582 -17	GW-3:Bag
608582 -18	GW-8:Bag
608582 -19	GW-7:Bag
608582 -20	GW-1:Bag
	5

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-10:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-01
Date Analyzed:	08/31/16	Data File:	083110.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	97	91	108
4-Bromofluorobenzene	94	76	126

4-Bromofluorobenzene	94	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.1		
Tetrachloroethene	18		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	GW-10 08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-02
Date Analyzed:	08/31/16	Data File:	083111.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	100	76	126

4-Bromofluorobenzene	100	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	2.7		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	1.3		
Tetrachloroethene	19		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-12:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-03
Date Analyzed:	08/31/16	Data File:	083112.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	96	91	108
4-Bromofluorobenzene	95	76	126

4-Bromofluorobenzene	95	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	3.5		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-13:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-04
Date Analyzed:	08/31/16	Data File:	083113.D
Matrix:	Water	Instrument: Operator:	GCMS9
Units:	ug/L (ppb)		JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	98	76	126

4-Bromoffuorobenzene	98	76	1
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-05
Date Analyzed: Matrix:	08/31/16 Water	Data File: Instrument:	083114.D GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	105	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	99	76	126

4-bromonuorobenzene	99	70
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichlorœthane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-14:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-06
Date Analyzed:	08/31/16	Data File:	083115.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	101	76	126

4-Di dillolludi obelizelle	101	70
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	<1	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-11:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-07
Date Analyzed:	08/31/16	Data File:	083116.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	96	76	126

4-Bromofluorobenzene	96	76	126
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	1.1		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	32		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-11	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-08
Date Analyzed:	08/31/16	Data File:	083117.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	98	76	126

4-Bromofluorobenzene	98	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	0.70		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	30		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16 08/31/16	Lab ID: Data File:	608582-09 083118.D
Date Analyzed: Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	104	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	98	76	126

4-Dromonuorobenzene	90	70
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	0.45	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	<1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	4.7	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	<1	
Tetrachloroethene	<1	

ENVIRONMENTAL CHEMISTS

Client Sample ID:	MW-10:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-10
Date Analyzed:	08/31/16	Data File:	083119.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	99	76	126

4-Di ollioliuoi obelizelle	99	70
Compounds:	Concentration ug/L (ppb)	
Vinyl chloride	< 0.2	
Chloroethane	<1	
1,1-Dichloroethene	<1	
Methylene chloride	<5	
trans-1,2-Dichloroethene	1.1	
1,1-Dichloroethane	<1	
cis-1,2-Dichloroethene	95	
1,2-Dichloroethane (EDC)	<1	
1,1,1-Trichloroethane	<1	
Trichloroethene	170 ve	
Tetrachloroethene	99	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	MW-10:Bag 08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-10 1/10
Date Analyzed:	09/01/16	Data File:	090107.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	98	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	< 50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	97
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	170
Tetrachloroethene	97

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed:	08/31/16 08/31/16 08/31/16	Client: Project: Lab ID: Data File:	Environmental Partners 69402, F&BI 608582 608582-11 083120.D
Matrix:	Water	Instrument: Operator:	GCMS9
Units:	ug/L (ppb)		JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	96	91	108
4-Bromofluorobenzene	96	76	126

4-Bromofluorobenzene	96	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	9.5		

ENVIRONMENTAL CHEMISTS

Client Sample ID:		Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-12
Date Analyzed:	08/31/16	Data File:	083121.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	99	76	126

4-Bromofluorobenzene	99	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	16		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-6: Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-13
Date Analyzed:	08/31/16	Data File:	083122.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	96	76	126

4-Bromofluorobenzene	96	76	
	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	7.0		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-6 08/31/16 08/31/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 608582 608582-14
Date Analyzed:	08/31/16	Data File:	083123.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	98	76	126

4-Bromofluorobenzene	98	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	7.3		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-15
Date Analyzed:	08/31/16	Data File:	083124.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	97	91	108
4-Bromofluorobenzene	97	76	126

4-Bromofluorobenzene	97	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	2.9		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-16
Date Analyzed:	08/31/16	Data File:	083125.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	100	76	126

100	•
Concentration ug/L (ppb)	
< 0.2	
<1	
<1	
<5	
<1	
<1	
1.1	
<1	
<1	
<1	
<1	
	Concentration ug/L (ppb) <0.2 <1 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted:	GW-3:Bag 08/31/16 08/31/16	Client: Project: Lab ID:	Environmental Partners 69402, F&BI 608582 608582-17
Date Analyzed:	08/31/16	Data File:	083126.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	99	76	126

4-Bromoffuorobenzene	99	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	2.4		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-18
Date Analyzed:	08/31/16	Data File:	083127.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	96	91	108
4-Bromofluorobenzene	96	76	126

4-Bromofluorobenzene	96	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	20		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received:	08/31/16	Client: Project:	Environmental Partners 69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-19
Date Analyzed:	08/31/16	Data File:	083128.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	100	76	126

4-Bromofluorobenzene	100	76	
Compounds	Concentration		
Compounds:	ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	1.1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	GW-1:Bag	Client:	Environmental Partners
Date Received:	08/31/16	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	608582-20
Date Analyzed:	08/31/16	Data File:	083129.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	94	76	126

4-Bromofluorobenzene	94	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	69402, F&BI 608582
Date Extracted:	08/31/16	Lab ID:	06-1796 mb
Date Analyzed:	08/31/16	Data File:	083109.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

		Lower	Opper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	100	76	126

4-Bromofluorobenzene	100	76	
Compounds:	Concentration ug/L (ppb)		
Vinyl chloride	< 0.2		
Chloroethane	<1		
1,1-Dichloroethene	<1		
Methylene chloride	<5		
trans-1,2-Dichloroethene	<1		
1,1-Dichloroethane	<1		
cis-1,2-Dichloroethene	<1		
1,2-Dichloroethane (EDC)	<1		
1,1,1-Trichloroethane	<1		
Trichloroethene	<1		
Tetrachloroethene	<1		

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/16 Date Received: 08/31/16 Project: 69402, F&BI 608582

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 608582-01 (Matrix Spike)

		Percent								
	Reporting	Spike	Sample	Recovery	Acceptance					
Analyte	Units	Level	Result	MS	Criteria					
Vinyl chloride	ug/L (ppb)	50	< 0.2	91	61-139					
Chloroethane	ug/L (ppb)	50	<1	87	55-149					
1,1-Dichloroethene	ug/L (ppb)	50	<1	87	71-123					
Methylene chloride	ug/L (ppb)	50	<5	83	61-126					
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	88	72-122					
1,1-Dichloroethane	ug/L (ppb)	50	<1	86	79-113					
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	87	63-126					
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	89	70-119					
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	95	75-121					
Trichloroethene	ug/L (ppb)	50	1.1	86	75-109					
Tetrachloroethene	ug/L (ppb)	50	18	85 b	72-113					

Laboratory Code: Laboratory Control Sample

		Percent	Percent		
Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Units	Level	LCS	LCSD	Criteria	(Limit 20)
ug/L (ppb)	50	92	97	70-119	5
ug/L (ppb)	50	89	92	66-149	3
ug/L (ppb)	50	89	92	75-119	3
ug/L (ppb)	50	86	91	63-132	6
ug/L (ppb)	50	89	91	76-118	2
ug/L (ppb)	50	86	90	80-116	5
ug/L (ppb)	50	87	89	80-112	2
ug/L (ppb)	50	89	91	79-109	2
ug/L (ppb)	50	94	98	80-116	4
ug/L (ppb)	50	85	86	77-108	1
ug/L (ppb)	50	86	86	78-109	0
	Units ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb)	Units Level ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50 ug/L (ppb) 50	Reporting Units Spike Level Recovery LCS ug/L (ppb) 50 92 ug/L (ppb) 50 89 ug/L (ppb) 50 89 ug/L (ppb) 50 86 ug/L (ppb) 50 89 ug/L (ppb) 50 86 ug/L (ppb) 50 87 ug/L (ppb) 50 89 ug/L (ppb) 50 94 ug/L (ppb) 50 85	Reporting Units Spike Level LCS Recovery LCSD ug/L (ppb) 50 92 97 ug/L (ppb) 50 89 92 ug/L (ppb) 50 89 92 ug/L (ppb) 50 86 91 ug/L (ppb) 50 89 91 ug/L (ppb) 50 86 90 ug/L (ppb) 50 87 89 ug/L (ppb) 50 89 91 ug/L (ppb) 50 85 86	Reporting Units Spike Level Recovery LCS Recovery LCSD Acceptance Criteria ug/L (ppb) 50 92 97 70-119 ug/L (ppb) 50 89 92 66-149 ug/L (ppb) 50 89 92 75-119 ug/L (ppb) 50 86 91 63-132 ug/L (ppb) 50 89 91 76-118 ug/L (ppb) 50 86 90 80-116 ug/L (ppb) 50 87 89 80-112 ug/L (ppb) 50 89 91 79-109 ug/L (ppb) 50 85 86 77-108

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- $jl\ -\ The\ laboratory\ control\ sample(s)\ percent\ recovery\ and/or\ RPD\ were\ out\ of\ control\ limits.\ The\ reported\ concentration\ should\ be\ considered\ an\ estimate.$
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

608582			SAMPLE	E CHAIN	OF (CUS	STO	DY	•	۴	1E	08	P- 3	31-	16		, V3
Report To Josh B	enthal		SAMPL	ERS (signature)						Page					AROUND		
Company EPT			PROJECT 694	CCT NAME 402						PO# Standar				lard 7 1			
Address [180 ww			REMAR	VC					_	TX	WOI	CE	<u> </u>	<u> </u>			PLE DISPO
City, State, ZIP <u>J 5504</u> Phone <u>425 - 345-colo</u> E	vala, WA, 980	ר2ט	- KEMAN	ins								CET			Dispo	se aft	ter 30 days amples
Phone 425 - 395 - colo E	mail jashbæe	pi-wa.com	2							Re	al	Est	are		Other		———
		T							Ā	NA	LYS	ES R	E Q U	ESTE	D		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	₹VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					N
Gw-10: Bay	01 A-D	8/30/16	0900	Water	4												
6W-10	02 T		0912														
MW-12: Bag	03		0925														
MW-12: Bag MW-13: Bag	04		0937														
MW-6: Bag	05		0950														
MW-14: Bag	06		1003														
MW-11: Bag	07		1020														
MW-11	08		1033														
Mw-4: Bag	09		1048											Sar	nples	rec	ived at _
MW-10: Bag	10	V	100	1	V					V							
J	Si	IGNATURE	_		PRI	NT N	IAM	E			Т		COM	IPAN	Y	T	DATE
Friedman & Bruya, Inc.	Relinquished by:			Joe		She					t	[0]					8131/16
3012 16th Avenue West	Received by	200	20	Mi		<u></u>	L	41			Fabra					4	
Seattle, WA 98119-2029	Relinquished by:																
D1 (000) 007 0000	I D . 11										1						

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE
elinquished by:	Joe Shinol	EPI	8131/16
eceived by DUDI	Michael Each	FEBON	1
elinquished by:			
eceived by:			

608582			SAMPLE	E CHAIN	OF (CUS	то	DY			M	!E (08-	31	- 10	6	7 .
Report To Josh B	pern thal	٠	SAMPL	ERS (signa	iture)		21	<u></u>	H	7		-	7	7	age w	of AROUND TI	3 ME
Company C 1 I			JECT NAME PO#						☐ Standard Turnaround ☐ RUSH Rush charges authorized by:								
Address 1180 NW Maple 87. REMAN			KS					 	INI	VOICI	<u> </u>	_ -			PLE DISPOS		
City, State, ZIP Issagua Phone 425-395-2010 E	b, WA 98	3027	-						S	K.	ygiçi Taal	1.1.		🛭 Disp	ose at	fter 30 days amples	
Phone 425-395-0016 E	mail jash bale	pi -wa.co	ห		•				IK4	261	Es	MIC		Oth		amples	
		<u> </u>							T	Т	YSES		JEST!	ED T	1	r	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	C/OCs by 8260C	s by 82	PAHS 8270D SIM				Not	es
MW-5: Bag NW-5 GW-6: Bag GW-6	ILA.D	813016	11:30	Water	4				λ								
MW-5	12 丁	1	1132							П							
Gw-6: Bag	13		1220														
Gw-6	14		1231														
GW-5	15		1245														
GW-9	16		1250														
Gw-3 Gw-8 Gw-7	17		1257														
6w-8	18		1305							1							
GW-7	19		1309										Sal	mnles	rece	ved at 3	, °С
Gw-1	೭೩	V	1320	\bigvee	Y				4	/			Jai	Dies			
Dist. OD 7	SI	GNATURE			PRIN	JT N	AMI	E				COI	MPAI	٧Y		DATE	TIME
Friedman & Bruya, Inc.	Relinquished by:		7	Jue		$\underline{S}_{\underline{\prime}}$					EF	T				8131116	<i>o</i> 630
3012 16th Avenue West	Relinquished by:	Ulr		Michael Erchhl				Fahre				T	+				
Seattle, WA 98119-2029 Ph. (206) 285-8282	Received by:								-								
1 11. (200) 200-0282	received by:																

Attachment B Boring and Well Completion Logs

PARTNERS INC				BORING ID: IJ-1					
SITE ADDRESS 1419 Avenue D. Snohomish, WA					CLIENT: Skotdal		CASING MATERIAL AND SIZE: 6" PVC		
DRILLING CONTRACTOR: Holt Drilling Services DRILLING EQUIPMENT:					PROJECT #:		SCREEN SIZE:		
					69402		0.02		
		MENI:			DATE:			SCREEN INTERVAL:	
	E-85	ND.			3/3/16		15-30 FILTER PACK:		
DRILLING METHOD:					NM	RFACE ELEV. FT	Silica Sand		
ASA OGGED BY: BOREHOLE SIZE:				TOTAL DEPT	······································	FILTER PACK INTERVAL:			
	liles L.G.		6" PVC		31		13-30		
Depth (feet)	nscs	USCS name: C	SCRIPTION olor; Moisture; Density; cy; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction	
0 1 2 3 4 5	SM	SILTY SAND; rec grain; trace grave	ddish brown; damp; loose; fine	50	1/2/07		0		
6 7 8 9			GRAVEL WITH SILT AND edium dense; fine to coarse	- 50	5/9/12		U		
10 11 12 13 14 15	GW-GM	-	SAND WITH SILT AND damp; loose; fine to coarse	50	3/3/07	IJ-1:15 (1345)	0		
16 17 18 19	- 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			40	3/20/27	IJ-1:15 (1345)		17 V	
20 21 22 23 24		Wet		100	15/35/52		0		
252627282930	SP-SM	GRAVEL; brown;	ED SAND WITH SILT AND damp; very dense; fine grains	50	14/30/40		0		
		Wet							
31 32	-	End	d of Borehole	1					

1 of 1

RILLING CONTRACT HOLD TILLING EQUIPMENT CME-85 RILLING METHOD: HSA OGGED BY: C. Mcfadden 1	vices NT:	Interval & % Recovery	CLIENT: Skotdal PROJECT #: 69402 DATE: 3/10/16 GROUND SUI NM TOTAL DEPTI 30 Blows per 6"	RFACE ELEV. FT.	AMSL: (wdd) QId	CASING MATERIAL AND SIZE: 6" PVC SCREEN SIZE: 0.02 SCREEN INTERVAL: 15-30 FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30 Well Construction
RILLING CONTRACT Holt Drilling Service In Inc. RILLING EQUIPMENT C.ME-85 RILLING METHOD: ISA OGGED BY: C. Mcfadden 9 0	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		PROJECT #: 69402 DATE: 3/10/16 GROUND SUI NM TOTAL DEPTI	н:		SCREEN SIZE: 0.02 SCREEN INTERVAL: 15-30 FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30
RILLING EQUIPMEN RILLING EQUIPMEN RILLING METHOD: ISA OGGED BY: C. Mcfadden 10 11 12 11 11 11 11 11 11 11 11 11 11 11	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		69402 DATE: 3/10/16 GROUND SUI NM TOTAL DEPTI 30	н:		0.02 SCREEN INTERVAL: 15-30 FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30
RILLING EQUIPMENT SME-85 RILLING METHOD: ISA OGGED BY: . Mcfadden 0 Gi 1 W Gi 2 -	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		DATE: 3/10/16 GROUND SUI NM TOTAL DEPTI	н:		SCREEN INTERVAL: 15-30 FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30
RILLING METHOD: ISA OGGED BY: .: Mcfadden 0 Gi 1 W Gi 2 -	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		3/10/16 GROUND SUI NM TOTAL DEPTI	н:		15-30 FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30
RILLING METHOD: ISA OGGED BY: C. Mcfadden 1 2 3 7 SW-SM 8 9 10 11 12 12	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		GROUND SUI NM TOTAL DEPT 30	н:		FILTER PACK: Silica Sand FILTER PACK INTERVAL: 13-30
OGGED BY: C. Mcfadden SOS N Pic Gi T SW-SM 8 9 10 11 12 12 12 13 14 15 11 12 14 15 16 17 18 18 18 19 10 10 11 11 12 12 13 14 15 16 17 18 18 18 18 18 18 18 18 18	BOREHOLE SIZE: 6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		NM TOTAL DEPTI	н:		Silica Sand FILTER PACK INTERVAL: 13-30
OGGED BY: C. Mcfadden ((ae))	6" PVC Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE (ELL-GRADED SAND WITH SILT AND		TOTAL DEPT		PID (ppm)	FILTER PACK INTERVAL: 13-30
(sep) Hade Q	Description USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE //ELL-GRADED SAND WITH SILT AND			Sample	PID (ppm)	
0 - Gi 1 - W 2 - O O O 3 - O O O 4 - O O O 5 - O O O 6 - O O O 7 - SW-SM 8 - O O O 9 - O O O 10 - O O 11 - O O 11 - O O 12 - O O 12 - O O 12 - O O 12 - O O 13 - O O 14 - O O 15 - O O 16 - O O 17 - O O 18 - O O O 18 - O O O 18 - O O O 18 - O O O O 18 - O O O O O O 18 - O O O O O O O O O O O O O O O O O O	USCS name; Color; Moisture; Density; asticity; Dilatency; EPI description; Other RASS AND SOIL SURFACE		Blows per 6"	Sample	PID (ppm)	Well Construction
1 - W Gi 2 - O O O O O O O O O O O O O O O O O O	/ELL-GRADED SAND WITH SILT AND					KY// V/XX
7 - SW-SM 9 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1			0	
12		40		IJ-2: 10 (0930)	0	
S/S/S/A S/	/ELL-GRADED GRAVEL WITH SILT AND AND; brown; wet; medium dense; fine to barse gravel with minor sand and few silt	20	1/6/07		0	15
16 - 17 - GW-GM 18 -		50	2/11/ 50 for 5"			
20 - PO de 22 - PO de 24 - PO de	OORLY-GRADED GRAVEL; brown; wet; ense; mosity coarse gravel with trace silt	50	11/41/ 50 for 4"		0	
26 - SA co	OORLY-GRADED GRAVEL WITH SILT AND AND; brown; wet; very dense; mosty fine to parse gravel with minor medium sand and w silt	50	50 for 4"		0	
30 31 32 33	End of Borehole				0	

PARTNERS INC			BORING ID: IJ-3					
SITE ADDRESS				CLIENT:		CASING MATERIAL AND SIZE:		
1419 Avenue D. Snohomish, WA				Skotdal		6" PVC		
DRILLING CONTRACTOR: Holt Drilling Services				PROJECT #:			SCREEN SIZE:	
				69402			0.02	
RILLING EQUIP	MENT:			DATE:			SCREEN INTERVAL:	
CME-85				3/2/16		15-30		
RILLING METH	OD:			GROUND SU	RFACE ELEV. FT	AMSL:	FILTER PACK:	
-ISA			NM			Silica Sand		
OGGED BY:				TOTAL DEPT	H:	FILTER PACK INTERVAL:		
. Miles L.G.	6.	' PVC		31			13-30	
Depth (feet)	USCS name; Colo Plasticity; Dilatency;	ription r; Moisture; Density; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction	
0 1 2 3 4 SW-SM 5 1		ND WITH SILT AND oist; loose; fine to coarse	30	2/3/05		0		
6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -		ND WITH GRAVEL; ım dense; fine to coarse	- 30	9/7/11				
0 -			40	9/6/12		0		
5 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		RAVEL WITH SILT AND ;; medium dense; fine to	100	3/1/29	IJ-3: 15 (1530)	0	17 v	
20 - 21 - 22 - 33 - GW-GM			40	3/20/ 50 for 5"		0		
25 26 27 28 29			20	3/24/ 50 for 5"		0		
31								
32	End o	f Borehole				1		

NOTES:

PAR	'IRONMENTAL TNERS INC	BORING ID: IJ-4					
SITE ADDRESS			CLIENT:		CASING MATERIAL AND SIZE:		
1419 Avenue	D. Snohomish, WA		Skotdal			6" PVC	
DRILLING CONT		PROJECT #:			SCREEN SIZE:		
Holt Drilling S		69402			0.02		
DRILLING EQUIP	MENT:	DATE:			SCREEN INTERVAL:		
CME-85	20	3/2/16	DEADE ELEV ET		15-30		
DRILLING METHO HSA	JU:		NM	RFACE ELEV. FT	FILTER PACK: Silica Sand		
OGGED BY: BOREHOLE SIZE:			TOTAL DEPT	'H:	FILTER PACK INTERVAL:		
B. Miles L.G.	6" PVC		30			13-30	
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction	
0	WELL-GRADED SAND WITH SILT AND GRAVEL; loose; moist; fine to coarse grains	40	2/2/04		0		
6 - 6 - 7 8 - 9 9	SILT; brown; damp; soft; non-plastic; trace fine grain sand	60	2/3/01				
10 -		60	2/12/16	IJ-4: 15	0		
15 - 16 - 17 - 18 - 19 -		40	1/6/04	(1140)	0	16.5	
20	SILTY SAND; brown; wet; medium dense; fine grain; poorly graded	0	20/50 for 6"		0		
25	WELL-GRADED GRAVEL WITH SILT AND SAND; brown; wet; very dense; fine to coarse grain	20	50 for 3"		0		
30 - 31 - 32 - 33 -	End of Borehole						
NOTES:		-				1 of 1	

PARTNERS INC			BORING ID: IJ-5					
TE ADDRESS	D. Snohomish, WA	CLIENT: Skotdal		CASING MATERIAL AND SIZE: 6" PVC				
RILLING CONT	RACTOR:	PROJECT #: 69402		SCREEN SIZE: 0.02				
RILLING EQUIF			DATE:			SCREEN INTERVAL:		
ME-85			3/2/16			14.5-29.5		
RILLING METH	OD:			RFACE ELEV. F	FILTER PACK:			
SA			NM			Silica Sand		
BOREHOLE SIZE: Miles L.G. BOREHOLE SIZE:			TOTAL DEPT	H:	FILTER PACK INTERVAL: 12-29.5			
USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction		
0 -	GRASS AND TOP SOIL					×/// ///×		
1 2 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	WELL-GRADED SAND WITH SILT AND GRAVEL; brown; moist; loose; fine to coarse grain	20	1/1/03		0			
6 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		20	1/1/02					
0 -		30	1/5/06		0			
5 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30	2/4/08	IJ-5: 15 (0900)	0	17 v		
0 + + +	Wet				0			
1 2 3 4 4	WELL-GRADED GRAVEL WITH SILT AND SAND; brown; wet; v. dense; fine to coarse grain	30	4/ 50 for 6"					
5 6 GW-GM 7 8 9		80	15/ 50 for 4"		0			
1 7000	End (D)							
2 -	End of Borehole	- 1			1			

1 of 1

PAR	/IRONMENTAL TNERS INC		BORING ID: IJ-6					
SITE ADDRESS			CLIENT:		CASING MATERIAL AND SIZE:			
1419 Avenue	D. Snohomish, WA		Skotdal			6" PVC		
DRILLING CONT			PROJECT #: 69402			SCREEN SIZE:		
Holt Drilling S			DATE:			SCREEN INTERVAL:		
CME-85	<u>-</u>		3/1/16			15-30		
DRILLING METH	OD:			RFACE ELEV. FT	AMSL:	FILTER PACK:		
HSA					Silica Sand			
LOGGED BY: B. Miles L.G.	BOREHOLE SIZE: 6" PVC		TOTAL DEPT	H:	FILTER PACK INTERVAL:			
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction		
0	WELL-GRADED SAND WITH SILT AND GRAVEL; brown; damp; loose; fine to coars grain		1/5/04		0			
6 -	SILTY SAND; brown; moist; medium dense; fine grained sand	25	2/6/08	IJ-6: 10				
10 - 11 - 12 - 13 - 14 -		0	2/6/10	(1500)	0			
15 - SM 16 - SM 17 - 18 - 19 - 19 - 120 - 1	Wet	100	2/6/12		0	16		
21 - 22 - 23 - 24 -		40	1/12/30					
25	WELL-GRADED GRAVEL WITH SILT AND SAND; wet; dense; fine to coarse grain	0	50 for 1"		0			
30 31 - 32 - 33	End of Borehole				U			
NOTES:						1 of 1		

PAR	VIRONMENTAL RTNERS INC		BORING	ID: IJ-7		
TE ADDRESS	D. Snohomish, WA		CLIENT: Skotdal			CASING MATERIAL AND SIZE: 6" PVC
RILLING CONT	RACTOR:		PROJECT #:			SCREEN SIZE:
olt Drilling			69402			0.02
RILLING EQUIF	PMENT:		DATE:			SCREEN INTERVAL:
ME-85			3/1/16			14.5-29.5
RILLING METH	OD:			RFACE ELEV. F	Γ AMSL:	FILTER PACK:
SA DGGED BY:			NM TOTAL DEPT	7.1.		Silica Sand
. Miles L.G.	BOREHOLE SIZE: 6" PVC		31	н:		FILTER PACK INTERVAL: 12-29.5
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0 -	Grass and Soil					
→ ∴ • • '	WELL-GRADED SAND WITH GRAVEL; brown; damp; loose; fine to coarse grain					
		50	2/4/06			
3 - SW						
4 -						
5	WELL-GRADED GRAVEL WITH SAND;				0	
6 -0.0	brown; moist; medium dense; fine to coarse grain sand					
7		45	4/9/09			
8 -> • • •		43	4/3/03			
9 7						
0 -0.0					0	
1 -0.0						
→•••						
-√ .GW .		0	3/9/14			
3 - 0 - 0						
4 -0.0						
5 - 0 •					0	
6]						
7			10/04/00			
8 -0.0		55	12/31/20			
9 7						
0 7 0 0	WELL-GRADED SAND WITH SILT AND			IJ-7: 20	0	
1 - 0 0	GRAVEL; brown; moist; fine to coarse grain			(1045)		
	sand					22
23 -		90	3/15/18			
-I bI bI						
4 -						
5 - SW-SM	Wet				0	
7 - 6		80	7/ 50 for 6"			
28 7 1 1		80	ט וטו טכ וו			
29						
30					0	*****
31					-	
32	End of Borehole	1	1		1	

PAR	IRONMENTAL TNERS INC		BORING	ID: IJ-8		
SITE ADDRESS	D. Snohomish, WA		CLIENT: Skotdal			CASING MATERIAL AND SIZE:
ORILLING CONTE			PROJECT #: 69402			SCREEN SIZE: 0.02
RILLING EQUIP			DATE:			SCREEN INTERVAL:
CME-85			2/29/16			14-29
RILLING METHO	DD:		GROUND SU	RFACE ELEV. F	T AMSL:	FILTER PACK:
ISA			NM			Silica Sand
OGGED BY:	BOREHOLE SIZE:		TOTAL DEPT	H:		FILTER PACK INTERVAL:
B. Miles L.G.	6" PVC		31			12-29
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0	WELL-GRADED SAND WITH GRAVEL; brown; damp; medium dense; fine to coarse grain	70	4/4/10		0	
6		15	3/3/07			
10		20	3/9/12		0	
15	SILTY SAND; brown; wet; medium dense; fine grain	- 55	8/7/09	IJ-8: 15 (1330)	0	17 V
19 <u>-</u>					0.1	
21 - 22 - 23 - 24 -	WELL-GRADED GRAVEL WITH SILT AND SAND; brown; wet; very dense; fine to coarse	10	1/ 50 for 5"			
25	grain sand				0	
26 - 27 - GW-GM 28 -		10	10/ 50 for 4"			
30 31	End of Borehole	_			0.1	
32	Lind of Doronolo	1	1		1	1

PAR	VIRONMENTAL RTNERS INC		BORING	ID: IJ-9		
ITE ADDRESS 419 Avenue	D. Snohomish, WA		CLIENT: Skotdal			CASING MATERIAL AND SIZE: 6" PVC
RILLING CONT			PROJECT #:			SCREEN SIZE:
olt Drilling	Services		69402			0.02
RILLING EQUIF	PMENT:		DATE:			SCREEN INTERVAL:
ME-85			2/24/16			14-24
RILLING METH	OD:		GROUND SU	RFACE ELEV. FT	AMSL:	FILTER PACK:
SA			NM			Silica Sand
OGGED BY:	BOREHOLE SIZE:		TOTAL DEPT	H:		FILTER PACK INTERVAL:
. Miles L.G.	6" PVC		25			12-24
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0 2 3 4 5	ASPHALT SURFACE WELL-GRADED GRAVEL WITH SILT AND SAND; brown; moist; loose	40	2/3/04		0.1	
6 - 7 - 8 - 9 - 10 - 10 - 10 - 10 - 10 - 10 - 10		30	5/3/14		0.1	
11 - 12 - 13 - 13 - 14 - 14 - 14 - 14 - 14 - 14		0	5/10/24			
15 - 16 - 17 - 18 -	Wet Cuttings	35	9/9/09		0.1	17
20 -	Med. Dense			IJ-9: 20 (0930)	0	
21 - 22 - 23 -		30	10/9/16			
24 - 77	Increased Silt					
25 <i>- 100 100 100</i>	End of Borehole	-			0	
26	5. 55.51.010	1			1	1

P A	VIRONMENTAL RTNERS INC		BORING	ID: IJ-10			
SITE ADDRES	S		CLIENT:			CASING MATERIAL AND SIZE:	
1419 Avenu	ıe D. Snohomish, WA		Skotdal			6" PVC	
DRILLING CO	NTRACTOR:		PROJECT #:			SCREEN SIZE:	
Holt Drillin	g Services		69402			0.02	
DRILLING EQ	JIPMENT:		DATE:			SCREEN INTERVAL:	
CME-85			2/29/16			15-25	
DRILLING ME	THOD:		GROUND SU	RFACE ELEV. FT	FILTER PACK:		
HSA			NM			Silica Sand	
LOGGED BY:	BOREHOLE SIZE:		TOTAL DEPT	H:		FILTER PACK INTERVAL:	
B. Miles L.	6" PVC		26			13-25	
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction	
0	ASPHALT SURFACE WELL-GRADED GRAVEL WITH SILT AND	-					
1 - 2 - 3 - 4 - 5 - 5 -	SAND; brown; moist; fine to coarse grain sand (logged from drilling cuttings)	0					
6 7 8 9 GW-G	<u> </u>	0					
11 12 13 14 15 15 16 17 18 18 18 18 18 18 18	Wet	25	2/2/04		0		
16 - 17 - 18 - 19 - 20 - ML	GRAVALLY SILT WITH SAND; brown; damp; hard; fine grain sand	- 60	16/ 50 for 5"	IJ-10: 20 (0900)	0		
21 -				(0000)			
22		50	16/ 45 for 2"				
23	POORLY-GRADED SAND WITH SILT AND GRAVEL; brown; moist; very dense						
25	$\Pi\Pi$				0.7		
26	End of Borehole	-					
27 - 28	End of Borenole						
NOTES:							
						4 04 4	
						1 of 1	

PAR	IRONMENTAL TNERS INC		BORING	ID: IJ-11		
SITE ADDRESS			CLIENT:			CASING MATERIAL AND SIZE:
1419 Avenue D). Snohomish, WA		Skotdal			6" PVC
DRILLING CONTRA	ACTOR:		PROJECT #:			SCREEN SIZE:
Holt Drilling Se	ervices		69402			0.02
DRILLING EQUIPM	IENT:		DATE:			SCREEN INTERVAL:
CME-85			2/25/16			15-25
DRILLING METHO	D:		GROUND SU	RFACE ELEV. FT	AMSL:	FILTER PACK:
HSA			NM			Silica Sand
LOGGED BY:	BOREHOLE SIZE:		TOTAL DEPT	H:		FILTER PACK INTERVAL:
B. Miles L.G.	6" PVC		26			13-25
О	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
	WELL-GRADED GRAVEL WITH SILT AND SAND; brown; moist; medium dense	10	4/6/08		0.1	
6 - 7 - 8 -	SANDY SILT WITH GRAVEL; brown; damp medium stiff; fine grain sand	60	5/4/04		0.1	
14 -	WELL-GRADED GRAVEL WITH SILT AND SAND; brown; wet; medium dense	10	6/6/06	IJ-11: 10 (0800)	0.2	13
15 16 17 GW-GM 18 19 20 20		0	6/3/14		0.1	
21 - 22 - ML 25 - ML	SANDY SILT WITH GRAVEL; brown; moist hard; fine grain sand	80	20/ 40 for 4"		0.1	
26	End of Borehole					
NOTES:						1 of 1

PAR	VIRONMENTAL RTNERS INC		BORING	ID: IJ-12		
SITE ADDRESS	D. Snohomish, WA		CLIENT: Skotdal			CASING MATERIAL AND SIZE: 6" PVC
ORILLING CONT	RACTOR:		PROJECT #: 69402			SCREEN SIZE: 0.02
RILLING EQUIF			DATE:			SCREEN INTERVAL:
CME-85			2/25/16			9.5-19.5
RILLING METH	OD:		GROUND SU	RFACE ELEV. F1	AMSL:	FILTER PACK:
ISA			NM			Silica Sand
OGGED BY: B. Miles L.G.	BOREHOLE SIZE: 6" PVC		TOTAL DEPT 25.5	H:		FILTER PACK INTERVAL: 7.5-19.5
Depth (feet)	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0	Asphalt Surface SILT; brown; damp; medium stiff; non-plastic	100	4/6/06	IJ-12: 5	0	
6 - 7 - 8 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	GRAVELLY LEAN CLAY WITH SAND; brow damp; very stiff; high plasticity	20 n;	6/3/14	(1245)		
10		0	1/1/14		0.6	12
15		30	2/2/14		0	
20 - 21 - - SM 22 - 23 -	SILTY SAND WITH GRAVEL; brown; wet; medium dense; fine gain sand WELL-GRADED GRAVEL WITH SILT AND	30	50 for 6"			
24 GW-GM	SAND; brown; wet; very dense				0	
26	End of Borehole					

SITE ADDRESS CLIENT: CASING MATERIAL AND S 1419 Avenue D. Snohomish, WA DRILLING CONTRACTOR: Holt Drilling Services DRILLING EQUIPMENT: CME-85 BORING ID: MW-15 CASING MATERIAL AND S Skotdal 2" PVC PROJECT #: SCREEN SIZE: 0.01 SCREEN INTERVAL: 15-30	SIZE:
1419 Avenue D. Snohomish, WA Skotdal 2" PVC DRILLING CONTRACTOR: PROJECT #: SCREEN SIZE: Holt Drilling Services 69402 0.01 DRILLING EQUIPMENT: DATE: SCREEN INTERVAL:	O'EE.
DRILLING CONTRACTOR: Holt Drilling Services PROJECT #: 69402 O.01 DRILLING EQUIPMENT: DATE: SCREEN SIZE: O.01 SCREEN INTERVAL:	
Holt Drilling Services 69402 0.01 DRILLING EQUIPMENT: DATE: SCREEN INTERVAL:	
DRILLING EQUIPMENT: DATE: SCREEN INTERVAL:	
CME-85 2/24/16 15-30	
DRILLING METHOD: GROUND SURFACE ELEV. FT AMSL: FILTER PACK:	
HSA NM Silica Sand	
LOGGED BY: BOREHOLE SIZE: TOTAL DEPTH: FILTER PACK INTERVAL:	
B. Miles L.G. 2" PVC 31 13-30	
Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other Description	on
Asphalt Surface POORLY-GRADED SAND WITH GRAVEL; brown; damp; medium dense; fine to coarse grain 3	
6 7 8 9 10 7/2/04	
11	
15 - 16 - 17 - 18 - 19 - 20 - SM	
21 - 22 - 23 - 24 - 25 -	
26 - 27 - 30 - ML GRAVELLY SILT; grey; damp; hard; non-plastic; trace fine grain sand 50 50 for 5"	
-	
31 End of Borehole	
32	
NOTES:	
	of 1

Attachment C Waste Disposal Documentation



INVOICE

DATE: INVOICE: April 21, 2016 5246

REMIT TO:

Fed. ID # 57-1160277

Debra Hill Skotdal Real Estate

WA UBI# 602 284 251 WA CLB# DHENVEI871NB

2707 Colby Avenue, Suite 1200

PO BOX 845458 Los Angeles, CA 90084-5485

DH Environmental, Inc.

Everett, WA 98201

BILL TO:

DESCRIPTION	Qty	Unit	Rate		Amount
Dates of Service: March 23, 2016 & April 12, 2016					
DW Transportation and Disposal - 1419 Avenue D, Snohomish, WA					
Wednesday, March 23, 2016					
Transportation: Roll-off Delivery	1.0	Each	\$ 500.00	\$	500.00
Fransportation: Roll-off Delivery to Alaska St.	2	Each	\$ 650.00	5	1,300.00
20 Cubic Yard Roll-off Rental	56	Days	\$ 35.00		1,960.00
Non-Regulated Disposal Fee at Alaska St. Transfer Facility	24.03	Tons	\$ 58.00	5	1,393.74
Roll-off Liners	2	Each	\$ 100.00	\$	200.00
Tuesday, April 12, 2016					
Fransportation	6	DM	\$ 75.00	\$	450.00
Disposal: Non-Regulated Soil - Direct Landfill (no free liquids)	6	DM	\$ 125.00	\$	750.00
Profile Fee	1	Each	\$ 25.00	\$	25.00
		INVOICE	SUBTOTAL	\$	6,578.74
THANK YOU FOR YOUR BUSINESS		SAI	ES TAX		
TRAIN TOO FOR TOOK BUSINESS		3/12	Le Irin		
		TOTAL	INVOICE	\$	6,578.74

Please pay this amount

Payment Terms: Net 30 Days. See attached for additional information

Scott St. John

Director of Project Services

Direct Phone:

206-327-0026

Email:

scottstjohn@dhenviro.com



Alaska Street 70 S Alaska Street Seattle, WA, 98134 Ticket# 119138

Volume

Ph: 206 763 5025

R TRANSPORT R TRANSPORT Customer Name DH ENVIRONMENTAL DH ENVIRONME Carrier Vehicle# Ticket Date 03/23/2016 Container Payment Type Credit Account Driver Manual Ticket# Check# Route AK Billing# Hauling Ticket#

Operator

PO# 1212160R Time

Scale SCALE 1 03/23/2016 14:06:57 SCALE 1 Out 03/23/2016 14:34:39

lmercer lmercer

Gross Tane Net

Tons

42940 15 28060 lb

14.03

RT - LM (CAN# 008775 2/24 - 3/23/16 = 28 DAYS) Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
		14.03 28 14.03 1	Each		Total Ta	£)č	SNOHOMISH

Drzoswa s Signature

ASTE MANAGEMENT

Alaska Street 70 S Alaska Street Seattle, WA, 98134 Original Ticket# 119108

Volume

Ph: 206 763 5025

Customer Name DH ENVIRONMENTAL DH ENVIRONME Carrier Ticket Date 03/23/2016

Payment Type Credit Account Manual Ticket#

Route AK Hauling Ticket# Destination PO#

Time

Dut 03/23/2016 10:47:59

R TRANSPORT R TRANSPORT Vehicle# Container

Driver Check#

Billing# 0000451

Scale 03/23/2016 10:14:34 SCALE 1 lmercer lmercer SCALE 1

48080 1b 41920 lb

Tare

6160 1b 3.08

Comments RT - LM (CAN# 008685 2/24 - 3/23/16 = 28 DAYS)

Product	LD%	Oty	UOM	Rate	Tax	Amount	Origin
Daily Cover-PCS-Tons-Pet CONTAINER DELIVERY-CONTA CONTAINER RENTAL/DAY-CON GONDOLA T-GONDOLA TON LINER-CONTAINER LINER	100	1	Tons Load Each Tons Each				SNOHOMISH SNOHOMISH SNOHOMISH SNOHOMISH SNOHOMISH

Total Tax Total Ticket

Dr203'WM's Signature

UNIFORM HAZARDOUS WASTE MANIFEST 5. Generator's Name and Mailin		2 Page 1 of 1 3	Emergency Respons	e Phone	4. Manifest	Tracking Nu	mber	
	1. Generator ID Number	1 9	500 3377	455	01	512:	1226	JJI
	DENOTAVAL PROOF	STUTE	nerator's Site Address			ss)	100	
2707 Coll	by Ave #1200 POBOX 5	267		Ayenm			umptel 61 mg	
Consisted Division Indiana	Errett WA 982	OG to bloowed astro-bles.	Sport Tierran mile man	mish (NA 982	9 algermold		
Generator's Phone: 6. Transporter 1 Company Nam	THE VINES DURES. FOR EXPORT, THE UTILING	OHE (MINE THE WAY AND THE	and any and the	NOO THOUGHT	U.S. EPA ID	Number	, enteres	_
DH	Environmental		balinti edi fiel Irea 6°2 II sisemia assis	ly the shipm varies that a	IWAY	10000	1472	
7. Transporter 2 Company Nam	e	# 1	- 100	100	U.S. EPA ID		April 10	
Chen	rical Waste	Manage					452	35.
8. Designated Facility Name and	d Site Address Chemical Was	ste Managem	iest inc		U.S. EPA ID			
	17629 Cedas	Springs LIV		tgiesen to				
Facility's Phone:	Arthabason	Don 97412		about act.	ORI	PXOC	452	353
WITH COURT OF BOILD	on (including Proper Shipping Name, Hazard Clas	ss, ID Number,	10. Conta	iners	11, Total	12. Unit	land and	
HM and Packing Group (if a		Printegal (Contact to adjust	No.	Туре	Quantity	Wt./Vol.	13. Wa	ste Codes
Materia	1 Not Regulated B	William State and State an	ed in elasiv ed gr	non accepting	A trailing	t lecti settles	aktipliooniii-	W
(TOW)	()		006	TW	7800	1	LOUIS GOLING	
2. St mail tol at	or information in the International Engle	have responsibilities to ent	ein Jahrooming o	no are act	Valenti Trivi	6 arehod	Note: Tenn	
A. JOE HIGH TOLD	PROVIDED BASIN BASIN VANC SILBINIDES IS		SOUTH OF SOURCES	September 2012	des Jan eight	Postion	THE REQUEST OF T	
						1		
3.								
						1.0	function .	
		e de la la la la la la la la la la la la la	1		- 2			
4.					The Mari			
			The state of the		1	18	1000	1 9
14. Special Handling Instruction	se and Additional Information						_	
marked and labeled/placar Exporter, I certify that the	OR'S CERTIFICATION: I hereby declare that the rded, and are in all respects in proper condition fo contents of this consignment conform to the terms	or transport according to applicable s of the attached EPA Acknowled	le international and na gment of Consent.	ational govern	mental regulations	hipping name s. If export shi	, and are classif pment and I am	ied, package the Primary
I certify that the waste min	imization statement identified in 40 CFR 262.27(a	a) (if I am a large quantity general	tor) or (b) (if I am a sn	nall quantity g	enerator) is true.		Manth	Davi
Generator's/Offeror's Printed/Ty	red Name on Behalf at 5Kg	Signati	121	V			Month	Day
							1	1/2
16. International Shipments	Import to U.S.	Export from U.S.	Port of e	entry/exit:			4	1/2
Transporter signature (for expo		Export from U.S.		entry/exit ving U.S.:			14	1/2
Transporter signature (for exporter) 7. Transporter Acknowledgmen	rts only): at of Receipt of Materials		Date lea		- 100 m		Month	/2_
Transporter signature (for exporter) 7. Transporter Acknowledgmen	rts only): at of Receipt of Materials me	Export from U.S.	Date lea		ie Nie		Month	Day
Transporter signature (for exporter) 17. Transporter Acknowledgmen Transporter 1 Printed/Typed Nar	rts only): at of Receipt of Materials me		Date lea				Month	Day Day
Transporter signature (for exporter) Transporter Acknowledgmen Transporter 1 Printed/Typed Nar	rts only): at of Receipt of Materials me	Signata	Date lea		Terc		1-1	1/2/
Transporter signature (for exporter 17. Transporter Acknowledgmen Transporter 1 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 2 Printed/Typed Nathransporter 3 Printed/Typed	rts only): at of Receipt of Materials me	Signata	Date lea		Terc		1-1	1/2/
Transporter signature (for exporter 17. Transporter Acknowledgmen Fransporter 1 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 3 Print	ints only): at of Receipt of Materials me	Signati	Date lea		□ Partial Re	ejection	Month 04	1/2/
Transporter signature (for exporter 17. Transporter Acknowledgmen Fransporter 1 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 2 Printed/Typed National Transporter 3 Print	ints only): int of Receipt of Materials interpretation of	Signata	Date lea	eving U.S.:	Partial Re	ection	Month 04	Day
Transporter signature (for exporter) Transporter Acknowledgmen Transporter 1 Printed/Typed National Transporter 2 Printed/Typed National Transporter 3 Printed/	ints only): Int of Receipt of Materials Interpretation Inte	Signati	Date lea	eving U.S.:			Month 04	Day
Transporter signature (for exporter 17. Transporter Acknowledgmen 17. Transporter 1 Printed/Typed National Transporter 2 Printed/Typed National 18. Discrepancy Indication Spa	ints only): Int of Receipt of Materials Interpretation Inte	Signati	Date lea	eving U.S.:	Partial Re		Month 04	Day
Transporter signature (for exporter 17. Transporter Acknowledgmen Transporter 1 Printed/Typed National Transporter 2 Printed/Typed National 18. Discrepancy 18a. Discrepancy Indication Spatial Spatia	ints only): Int of Receipt of Materials Interpretation Inte	Signati	Date lea	eving U.S.:			Month 04	Day
Transporter signature (for exporter 17. Transporter Acknowledgmen Transporter 1 Printed/Typed National Transporter 2 Print	ints only): Int of Receipt of Materials Interpretation Interpretat	Signati	Date lea	eving U.S.:			Month 04	Day //2
Transporter signature (for exporter 17. Transporter Acknowledgmen Transporter 1 Printed/Typed National Transporter 2 Print	ints only): Int of Receipt of Materials Interpretation Interpretat	Signati	Date lea	eving U.S.:			Month 04	Day //2
16. International Shipments Transporter signature (for expoint) Transporter Acknowledgment Transporter 1 Printed/Typed National States of the	ints only): Int of Receipt of Materials Interpretation Interpretat	Signati	Date lea	ving U.S.:			Month 04	Day //2
Transporter signature (for exporter 17. Transporter Acknowledgmen Transporter 1 Printed/Typed National Transporter 2 Printed/Typed National 18. Discrepancy 18a. Discrepancy Indication Spatial Spatia	int of Receipt of Materials me ace Quantity Patrice (Control of Materials) Description (Control of Materials) Description (Control of Materials)	Signati	Date lea	ving U.S.:			Month 04	Day //2
Transporter signature (for exporter) 17. Transporter Acknowledgmen Transporter 1 Printed/Typed National Section 18. Discrepancy 18. Discrepancy Indication Spanson 18. Discrepancy Indication Spanson 18. Alternate Facility (or General Facility's Phone: 18c. Signature of Alternate Facility. Hazardous Waste Report M. 1.	int of Receipt of Materials me ace Quantity rator) lity (or Generator) lanagement Method Codes (i.e., codes for hazard	Signati Signat Signati Signati Signati Signati Signati Signati Signati Signati	Date learning programme Pr	ving U.S.:	U.S. EPA ID		Month 04	Day //2



INVOICE

DATE: INVOICE: May 10, 2016 5265

REMIT TO:

Fed. ID # 57-1160277 WA UBI# 602 284 251

BILL TO: Debra Hill Skotdal Real Estate 2707 Colby Avenue, Suite 1200 Everett, WA 98201

DH Environmental, Inc. 1011 SW Klickitat Way Suite 210 WA CLB# DHENVEI871NB

Seattle, WA 98134

Contact: Scott St. John at (206) 327-0026 or scottstjohn@dhenviro.com

Project Reference: Skotdal Real Estate		100	200	Amount
DESCRIPTION	Qty	Unit	Rate	 Amount
Dates of Service: May 2016				
DW Transportation and Disposal - 1419 Avenue D, Snohomish, WA				
Mini-Frac Tank Rental & F002 Water Disposal				
Transportation: Tank Mob/Demob	10	Hour	\$ 135.00	\$ 1,350.00
Transportation: Vacuum Truck to Chemical Waste Management - Arlington, OR	16	Each	\$ 155.00	\$ 2,480.00
Per Diem for Driver	1	Each	\$ 125.00	\$ 125.00
Tank Rental	55	Days	\$ 35.00	\$ 1,925.00
F002 Water Disposal Fee at CWM Arlington	2600	Gallons	\$ 0.57	\$ 1,482.00
Empty Drum Recycling	22	Each	\$ 10.00	\$ 220.00
Transportation: F002 Water Drums	8	Each	\$ 55.00	\$ 440.00
Disposal: F002 Water Drums	8	Each	\$ 175.00	\$ 1,400.00
THANK YOU FOR YOUR BUSINESS			SUBTOTAL S TAX	\$ 9,422.00

\$ 9,422.00

Payment Terms: Net 30 Days. See attached for additional information

Scott St. John

Director of Project Services

**Please update your records with our new remittance address, thank you!

Direct Phone:

206-327-0026

TOTAL INVOICE

Email:

scottstjahn@dhenviro.com

	RM HAZARDOUS TE MANIFEST	1. Generator ID Nu		9 2 1 7	- 1	800-887		se Phone	01	Tracking N	1230	5 J	IK
270 Eve	ator's Name and Mail	ne ue Suite 1200 06			losti Berntha	Generator's S	Real El	stare	nan mailing addres	is)			
. Transp	or's Phone: porter 1 Company Nar	me		g .	10	I metalini			U.S. EPAID N		9 4 5	2 3 5	3
	porter 2 Company Na			Here S	1100	in the second			U.S. EPA ID N				
176		nd Site Address THE MAINAGE FRINGS LAN	MENT, INC						U.S. EPA ID N	lumber			
acility's	Phone: 541 4	54-2643	A PARTY OF						ORD	0.8	9.4.5	2 3 5	3
HM 6	9b. U.S. DOT Descrip and Packing Group (if	any))	South a series of a series of	SALUTION CHANNEL TO		100	10. Conta	Type	11. Total Quantity	12. Unit Wt./Vol.	13. V	Waste Code	à
X	NA3082, Haz Tetrachloroeti 9, PGIII		aquid, n o s	(Trichloroeth	nylene,	C	01	TT	2,000	6	F002		12
2.	THE SAME OF STREET												
3.				THE RESERVE OF THE	and them	A STREET, BLA	1700	ON THE RESERVE	November (III) (Marie	16.00		with a	
4.													
4. Spec	cial Handling Instruction	ins and Additional Info	ormation				A TOTAL						2
5. GE ma Exp	ENERATOR'S/OFFER riked and labeled/plac porter, I certify that the entify that the waste m or's/Offeror's Printed/I	OR'S CERTIFICATIO arded, and are in all re contents of this cons inimization statement	ON: I hereby declar espects in proper of signment conform t	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	plicable internati lowledgment of C	onal and na consent.	ational govern	mental regulations	ipping nam. If export si	e, and are clas apment and I a	am the Prim	age
5. GE ma Exp I ce Senerato	ENERATOR'S/OFFER trked and labeled/plac porter, I certify that the ertify that the waste m or's/Offeror's Printed/I	OR'S CERTIFICATIO arded, and are in all re e contents of this consinimization statement (yped Name)	DN: I hereby decla espects in proper signment conform t identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	oplicable international policable internation	onal and na Consent. (if I am a sn	nall quantity g	mental regulations	ipping nam. If export sh	nipment and I a	am the Prim	age
5. GE ma Exp l ce denerate 6. Interr	ENERATOR'S/OFFER Inked and labeled/place porter, I certify that the entify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp	OR'S CERTIFICATIO arded, and are in all re e contents of this cons inimization statement Typed Name Import to oorts only):	ON: I hereby decla espects in proper signment conform to identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	oplicable international policable internation	onal and na Consent. (if I am a sn	nali quantity g	mental regulations	ipping nam If export st	nipment and I a	am the Prim	age
5. GE ma Exp l ce Generato 6. Interr Transpo 7. Trans	ENERATOR'S/OFFER whed and labeled/plac porter, I certify that the entify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp	OR'S CERTIFICATIO arded, and are in all re e contents of this cons inimization statement Typed Name Import to oorts only): ent of Receipt of Mater	ON: I hereby decla espects in proper signment conform to identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn h a large quantity g	opticable international process of Control o	onal and na Consent. (if I am a sn	nall quantity g	mental regulations	ipping nam If export st	Mon	am the Prim	age
5. GE ma Exp I ce senerate 6. Interr ranspo 7. Trans ranspor	ENERATOR'S/OFFER Irked and labeled/plac porter, I certify that the ertify that the waste m or's/Offeror's Printed/I mational Shipments orter signature (for exp sporter Acknowledgmenter 1 Printed/Typed N	OR'S CERTIFICATIO arded, and are in all re contents of this cons inimization statement fyped Name Import to ords only): ent of Receipt of Mater ame	ON: I hereby decla espects in proper signment conform to identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policable international polica	onal and na Consent. (if I am a sn	nall quantity g	mental regulations	lipping nam. If export si	Mon	am the Prim	l l
5. GE ma Exp l ce Generate 6. Interr Transpo 7. Trans ranspor	ENERATOR'S/OFFER whed and labeled/plac porter, I certify that the entify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp	OR'S CERTIFICATIO arded, and are in all re contents of this cons inimization statement fyped Name Import to ords only): ent of Receipt of Mater ame	ON: I hereby decla espects in proper signment conform to identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	opticable international process of Control o	onal and na Consent. (if I am a sn	nall quantity g	mental regulations	nipping nam. If export sh	Mon	am the Prim	l l
55. GE mai Exp l ce E	ENERATOR'S/OFFER whed and labeled/place porter, I certify that the pritify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgme rter 1 Printed/Typed N rter 2 Printed/Typed N repancy	OR'S CERTIFICATIO arded, and are in all re e contents of this come inimization statement fyped Name Import to oorts only): ent of Receipt of Mater ame	ON: I hereby decla espects in proper signment conform to identified in 40 CF	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policable international polica	onal and na Consent. (if I am a sn	nall quantity g	mental regulations	ipping nam If export sh	Mon	am the Prim	l l
55. GE mai Exp l ce E	ENERATOR'S/OFFER strked and labeled/plac porter, I certify that the ertify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgme rter 1 Printed/Typed N rter 2 Printed/Typed N	OR'S CERTIFICATIO arded, and are in all re e contents of this come inimization statement fyped Name Import to oorts only): ent of Receipt of Mater ame	on: I hereby declarespects in proper or signment conform to identified in 40 CF or U.S.	condition for transports to the terms of the a	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policies of Comments of Commen	onal and na consent. (iff I am a sn Port of a Date lea	nall quantity g	mental regulations	If export sh	Mon	am the Prim	I I
55. GE ma Exp I con Exp I	ENERATOR'S/OFFER whed and labeled/place porter, I certify that the pritify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgme rter 1 Printed/Typed N rter 2 Printed/Typed N repancy	OR'S CERTIFICATIO arded, and are in all re e contents of this consinimization statement Typed Name Import to norts only): ent of Receipt of Mater ame page Quar	on: I hereby declarespects in proper or signment conform to identified in 40 CF or U.S.	condition for transpi to the terms of the a R-262.27(a) (if arr	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policies of Comments of Commen	onal and na consent. (iff I am a sn Port of a Date lea	nall quantity g	mental regulations enerator) is true.	ection	Mon	th Day	I I
55. GE ma Exp los losenerato for los losenerato for los los los los los los los los los los	ENERATOR'S/OFFER rived and labeled/plac porter, I certify that the ertify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgme rter 1 Printed/Typed N rter 2 Printed/Typed N repancy crepancy Indication S ernate Facility (or Gen	OR'S CERTIFICATIO arded, and are in all re e contents of this consinimization statement Typed Name Import to norts only): ent of Receipt of Mater ame page Quar	on: I hereby declarespects in proper or signment conform to identified in 40 CF or U.S.	condition for transpi to the terms of the a R-262.27(a) (if arr	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policies of Comments of Commen	onal and na consent. (iff I am a sn Port of a Date lea	nall quantity g	mental regulations enerator) is true.	ection	Mon	th Day	I I
55. GE ma Exp / I command / I	ENERATOR'S/OFFER Inked and labeled/place porter, I certify that the entify that the waste in or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgmenter 1 Printed/Typed N repancy crepancy Indication S	OR'S CERTIFICATIO arded, and are in all re e contents of this cons inimization statement (yped Name Import to oorts only): ent of Receipt of Mater ame pace Quar erator)	on: I hereby declarespects in proper or signment conform to identified in 40 CF or U.S.	condition for transpi to the terms of the a R-262.27(a) (if arr	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policies of Comments of Commen	onal and na consent. (iff I am a sn Port of a Date lea	nall quantity g	mental regulations enerator) is true.	ection	Mon	th Day	I l
5. GE ma Exp los Exp l	ENERATOR'S/OFFER Inked and labeled/place porter, I certify that the pritify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgmenter 1 Printed/Typed N repancy crepancy Indication S ernate Facility (or Gen s Phone: nature of Alternate Fa	OR'S CERTIFICATIO arded, and are in all recontents of this consinimization statement Typed Name Import to oorts only): ent of Receipt of Mater ame pace Quar erator)	DN: I hereby decla espects in proper signment conform to identified in 40 CF b U.S.	condition for transpi to the terms of the a R-262.27(a) (if arr	ort according to ap attached EPA Ackn n a large quantity g	pplicable international policable international polica	Port of s Date lea	antry/exit:	mental regulations enerator) is true.	ection	Mon S Mon Mon Mon Mon Mon Mon Mon Mon Mon Mon	th Day	l
5. GE ma Exp los Exp l	ENERATOR'S/OFFER rived and labeled/plac porter, I certify that the ertify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgme rter 1 Printed/Typed N rter 2 Printed/Typed N repancy crepancy Indication S emate Facility (or Gen s Phone:	OR'S CERTIFICATIO arded, and are in all recontents of this consinimization statement Typed Name Import to oorts only): ent of Receipt of Mater ame pace Quar erator)	DN: I hereby decla espects in proper signment conform to identified in 40 CF b U.S.	condition for transpi to the terms of the a R-262.27(a) (if arr	ort according to ap attached EPA Ackn n a large quantity g Export from	pplicable international policable international polica	Port of s Date lea	antry/exit:	mental regulations enerator) is true.	ection	Mon S Mon Mon Mon Mon Mon Mon Mon Mon Mon Mon	th Day	I l
55. GE ma Exp los los Generato	enerator's/offer rived and labeled/plac porter, I certify that the entify that the waste m or's/Offeror's Printed/I national Shipments offer signature (for exp sporter Acknowledgmenter 1 Printed/Typed N repancy crepancy Indication S emate Facility (or Gen s Phone: nature of Alternate Fa ardous Waste Report	OR'S CERTIFICATIO arded, and are in all re arded, and are in all re contents of this cons inimization statement (yped Name Import to orts only): ant of Receipt of Mater ame page Quar erator) Cillity (or Generator)	ON: I hereby declar espects in proper or ignment conform to identified in 40 CF or U.S. rials Codes (i.e., codes 2.	condition for transpi to the terms of the a R-262.27(a) (if I am	ort according to ap attached EPA Ackn n a large quantity g Export from	pplicable international policies of Control of Control of (b) (Signature of Control of (c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	onal and na consent. (iff I am a sm Port of a Date lease Residue Residue References Ref	antry/exit	mental regulations enerator) is true.	ection	Mon S Mon Mon Mon Mon Mon Mon Mon Mon Mon Mon	th Day	I l
15. GE ma Exp los Generate 16. Interr Transpor 17. Trans Transpor 18. Discr 18a. Discr 18b. Alte Facility's 18c. Sign 19. Haza 1.	ENERATOR'S/OFFER Inked and labeled/place porter, I certify that the pritify that the waste m or's/Offeror's Printed/I national Shipments orter signature (for exp sporter Acknowledgmenter 1 Printed/Typed N repancy crepancy Indication S ernate Facility (or Gen s Phone: nature of Alternate Fa	OR'S CERTIFICATIO arded, and are in all re arded, and are in all re contents of this cons inimization statement (yped Name Import to orts only): ant of Receipt of Mater ame page Quar erator) Cillity (or Generator)	ON: I hereby declar espects in proper or ignment conform to identified in 40 CF or U.S. rials Codes (i.e., codes 2.	condition for transpi to the terms of the a R-262.27(a) (if I am	ort according to ap attached EPA Ackin in a large quantity g Export from S ste treatment, dispose accovered by the milestands.	pplicable international policies of Control of Control of (b) (Signature of Control of (c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	onal and na consent. (iff I am a sm Port of a Date lease Residue Residue References Ref	antry/exit	mental regulations enerator) is true.	ection	Mon S Mon Mon Mon Mon Mon Mon Mon Mon Mon Mon	th Day th Day The Day	ecc.

LIMIT	nt or type. (Form desig									OMB No. 20
W	FORM HAZARDOUS ASTE MANIFEST	1. Generator ID Number	9 2 1 7	2. Page 1 of	800-337-7465	i-lawred	01	t Tracking No.	123°	7]]
2	verett VVA 9820	Suite 1200 PO Box 5267		esterrani.	Generator's Site Address	2210	han mailing addr	ess)		United to an United to an U-00 U men ucho bon -mi
Gene	rator's Phone:	The second second	Question of the							
6. Tra	insporter 1 Company Nam	ful Inc.					U.S, EPA ID	Number	0 0 4	7-2-1-7
7. Tra	nsporter 2 Company Nam	e Management	minut but	tf mill	and the same of the		U.S. EPA ID	Number	9 4 6	2 3 5
no.de	signated Facility Name an		NO NEW COLUMN TWO IS NOT THE COLUMN TWO IS N	restw Construction		174	U.S. EPA ID			<u>.</u>
Facilit	ty's Phone:	14-2643					ORG	0 8	9-4-6	2 9 5
9a. HM	9b. U.S. DOT Descripti and Packing Group (if a	on (including Proper Shipping Name, Ha any))	zard Class, ID Number,	in-	10. Conta	Type	11. Total Quantity	12. Unit Wt./Vol.	13. \	Vaste Codes
Х	Tetrachloroeth		Inchlorogotyle	ne,	THE PART OF PART OF		A PART MANA	0	F002	
	9, PGIII	=4, "	megola i	X	011	pm	4/000	Man a	off, make	1- 40
	2.				Application would record		guir youngan na ra 'n nors	on the second		o militari m
	3.				James and a		to be sub-time			arono a do
	Train Training affairs (Tark						Sec.	replaced by		
10.2	4	c in som flår minnskri knimt i s mange flom ma tille sike sike		Di III						
					MANUFACTURE COM	Margare.	COS STANSON	THEFT		
				094		PIO III O	TE IIII III III I	MITTER TO		property.
	marked and labeled/placa Exporter, I certify that the I certify that the waste mir	OR'S CERTIFICATION: I hereby declare rded, and are in all respects in proper co contents of this consignment conform to	ondition for transport ac	is consignment	are fully and accurately d	escribed abo	ve by the proper	shinning name	e and are clas	
	rator's/Offeror's Printed/Ty	/ped Name	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Siç	icable international and na vledgment of Consent.		mental regulation	is. If export sh	ipment and I	am the Primary
16. ln	rator's/Offeror's Printed/Ty	yped Name	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig	icable international and na vledgment of Consent, nerator) of (b) (if) am a sn gnature	nall quantity g	mental regulation	s. If export sh	nipment and I	am the Primary
		/ped Name Import to U.S.	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Siç	icable international and na vledgment of Consent. nerator) of (b) (if) am a so gnature		mental regulation	is, If export sh	nipment and I	am the Primary
Trans	nternational Shipments sporter signature (for exportersporter Acknowledgment	rped Name Import to U.S. orts only): nt of Receipt of Materials	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig	icable international and na vledgment of Consent. nerator) of (b) (if) am a sn mature U.S. Port of a Date lea	nall quantity g	mental regulation	is, If export sh	nipment and I	am the Primary
Trans	sporter signature (for expo	rped Name Import to U.S. orts only): nt of Receipt of Materials	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig	icable international and na vledgment of Consent. nerator) of (b) (if) am a so gnature	nall quantity g	mental regulation	is, If export sh	Mor	am the Primary
Trans 17. Tr Trans	nternational Shipments sporter signature (for exportersporter Acknowledgment	Import to U.S. orts only): nt of Receipt of Materials	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na vledgment of Consent. nerator) of (b) (if) am a sn mature U.S. Port of a Date lea	nall quantity g	mental regulation	is, If export sh	Mor	th Day
Trans Trans Trans Trans	sporter signature (for exporter signature (for exporter Acknowledgments) sporter 1 Printed/Typed National State of the Sta	Import to U.S. orts only): nt of Receipt of Materials ame	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na vledgment of Consent. nerator) or (b) (if) am a sn gnature U.S. Port of e Date lea	nall quantity g	mental regulation	is, If export sh	Mor	th Day
Trans Trans Trans	sporter signature (for exporter signature (for exporter Acknowledgment porter 1 Printed/Typed National Sporter 2 Printed/Typed National Sporter 2 Printed/Typed National Sporter 2 Printed/Typed National Sporter 2 Printed	Import to U.S. orts only): nt of Receipt of Materials ame	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na vledgment of Consent. nerator) or (b) (if) am a sn gnature U.S. Port of e Date lea	nall quantity g	mental regulation	s, If export sh	Mor	th Day
Trans 17. Tr Trans Trans 18. D	sporter signature (for exportant sporter Acknowledgment sporter 1 Printed/Typed National Sporter 2 Printed/Typed National Sporter 2 Printed/Typed National Sporter Spo	Import to U.S. orts only): Int of Receipt of Materials Import to U.S. Int of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na vledgment of Consent. herator) of (b) (if I am a sn gnature U.S. Port of e Date lea	entry/exit:ving U.S.:	mental regulation	tejection	Mor	th Day th Day th Day
Trans Trans Trans 18. D 18a. 1	sporter signature (for exporter signature (for exporter Acknowledgments) sporter 1 Printed/Typed National Superior 2 Printed/Typed National Su	Import to U.S. orts only): Int of Receipt of Materials Import to U.S. Int of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials Interval of Receipt of Materials	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na viedgment of Consent. herator) of (b) (if I am a sn gnature U.S. Port of e Date lea gnature Residue	entry/exit:ving U.S.:	mental regulation	tejection	Mor	th Day th Day th Day
Trans 17. Tr Trans 18. D 18a. 1	sporter signature (for exportant sporter Acknowledgment sporter 1 Printed/Typed National Sporter 2 Printed/Typed National Sporter 2 Printed/Typed National Sporter Spo	Import to U.S. orts only): int of Receipt of Materials ame ame Quantity	R 262.27(a) (if I am a lar	ed EPA Acknov rge quantity ger Sig Export from	icable international and na viedgment of Consent. herator) of (b) (if I am a sn gnature U.S. Port of e Date lea gnature Residue	entry/exit:ving U.S.:	mental regulation	tejection	Mor Mor	th Day th Day th Day
Trans 17. Tr Trans 18. D 18a. I 18b. I	sporter signature (for exporansporter Acknowledgments) sporter 1 Printed/Typed National Superior 2 Printed/T	Import to U.S. orts only): nt of Receipt of Materials ame are Quantity. erator)	Type	ed EPA Acknow ge quantity ger Sig Export from	icable international and na vledgment of Consent. herator) of (b) (if) am a singular e U.S. Port of e Date lea gnature Residue Manifest Referen	entry/exit:ving U.S.:	mental regulation	tejection	Mor Mor	th Day th Day Full Reject
Trans 17. Tr Trans 18. D 18a. I 18b. I	sporter signature (for exporansporter Acknowledgments) sporter 1 Printed/Typed National Superior 2 Printed/T	Import to U.S. orts only): int of Receipt of Materials ame ame Quantity	Type	ed EPA Acknow ge quantity ger Sig Export from	icable international and na vledgment of Consent. herator) of (b) (if) am a singular e U.S. Port of e Date lea gnature Residue Manifest Referen	entry/exit:	mental regulation	tejection	Mor Mor	th Day th Day Full Reject
Trans 17. Tr Trans 18. D 18a. I 18b. A Facili 18c. I 19. H 1.	sporter signature (for exporansporter Acknowledgments) sporter 1 Printed/Typed National Suporter 2 Printed/T	Import to U.S. orts only): int of Receipt of Materials ame ame Quantity orator) Management Method Codes (i.e., codes in the code in	Type	ed EPA Acknowrge quantity ger Sig Export from Sig Sig Sig Sig Sig Sig Sig Sig Sig Sig	icable international and navledgment of Consent. herator) or (b) (if I am a sn gnature U.S. Port of e Date lea gnature Residue Manifest Referen al, and recycling systems	entry/exit:ving U.S.:	mental regulation	tejection	Mor Mor	th Day th Day Full Reject
Trans 17. Tr Trans 18. D 18a. I 18b. I 18b. I 19. H 1. 20. D	sporter signature (for exporansporter Acknowledgments) sporter 1 Printed/Typed National Suporter 2 Printed/T	Import to U.S. orts only): Int of Receipt of Materials are are Quantity Viriator) Variator) Variangement Method Codes (i.e., codes in the code in the code in the codes in the code in the co	Type	ed EPA Acknow rge quantity ger Sig Sig Sig Sig Sig Sig Sig Sig Sig Sig	icable international and navledgment of Consent. herator) or (b) (if I am a sn gnature U.S. Port of e Date lea gnature Residue Manifest Referen al, and recycling systems	entry/exit:ving U.S.:	mental regulation	tejection	Mor Mor	th Day th Day Full Reject

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Nun	8 8 4 8 9 2	17	Page 1 of 3. Er	nergency Respons	e Phone	4. Manifest	512	123	5 JJK
Generator's Name and Ma	NUE Suite 1200 F	PO Box 5267	AMILIANOS (III)	797	ator's Site Addres	£265.00	nan mailing addre	SS)		
		1 - 5 4 0 0		Sho	nomish swe	98290				
enerator's Phone: Transporter 1 Company Na		Terrato Tambrida Munici		_			U.S. EPA ID	Number	0.4	7 0 4 7
TOTAL NAME OF STREET		and report to the last	10 - Poset - 40				100000000000000000000000000000000000000	0.0	3-0-4	
Transporter 2 Company Na	ame Le Manageme	nt					U.S. EPA ID I		4.6	3 5 3
. Designated Facility Name	PRINGS LANE		Se les les ses			200	U.S. EPA ID	Number		
acility's Phone:	154-2643						ORD	0.8	9 4 5	2 3 5 3
	(if any))	Shipping Name, Hazard Cla	ass, ID Number,		10. Conta	iners Type	11. Total Quantity	12. Unit Wt./Vol.	13. V	Vaste Codes
X Tetrachloreet 9, PGIII		renovinos	francisc 12 magazi = x	mg7 /	008	OM	3,200	9	1-002	
2.	O+F	Developed (CDF) as	noT-preside = M	THE SE	Marie and annual		and the same	not no		
National styles for		Tested State Control	rest in 1 ste	M	Particular MC		the balleting L			
3.					OF THE REAL PROPERTY.		THE R. LEWIS CO., LANSING, MICH.	Market State		
			DEFENDED TO THE SECOND	n limis	-		n telescope		other II other	econtrat for
4.	element had see		Part of the Part		e peri and other	-			-	
002	200R3	30656	iner anness de mer sedang sell petide d'incress my annesses	The special state of the state			manifements of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second			
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that th I certify that the waste r	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the contents		for transport according of the attached	ding to applicable EPA Acknowledgm	nternational and na ent of Consent. or (b) (if I am a sr	ational govern	mental regulations	hipping nam s. If export sh	e, and are clas nipment and I	am the Primary
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that the I certify that the waste of Generator's/Offeror's Printed	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the contents	NN: I hereby declare that the espects in proper condition to some or the term of the term	for transport accorns of the attached (a) (if I am a large	ding to applicable EPA Acknowledgm quantity generator Signature	nternational and na ent of Consent. or (b) (if I am a sr	ational govern	mental regulations	hipping namo	nipment and I	am the Primary
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that th I certify that the waste research's/Offeror's Printed 6. International Shipments	RROR'S CERTIFICATIO acarded, and are in all rehe contents of this consiminimization statement in a statement in	ON: I hereby declare that the espects in proper condition to signment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ding to applicable EPA Acknowledgm quantity generator	nternational and na ent of Consent. or (b) (if I am a sr	nall quantity g	mental regulations	hipping nam B. If export sh	nipment and I	am the Primary
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that the waste in I cer	RROR'S CERTIFICATIO accarded, and are in all re- he contents of this consi- minimization statement in Typed Name Import to exports only):	DN: I hereby declare that the espects in proper condition isignment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ding to applicable EPA Acknowledgm quantity generator Signature	nternational and na ent of Consent. or (b) (if I am a sr	ational govern	mental regulations	hipping nam , if export sh	Mor	am the Primary
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that th I certify that the waste in Generator's/Offeror's Printed 6. International Shipments Transporter signature (for e) 7. Transporter Acknowledge	RROR'S CERTIFICATIO acarded, and are in all re the contents of this consist infinitization statement in Typed Name Import to xports only): ment of Receipt of Materi	DN: I hereby declare that the espects in proper condition isignment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ding to applicable EPA Acknowledgm quantity generator Signature	nternational and na ent of Consent. or (b) (iff I am a sr Port of a Date lea	nall quantity g	mental regulations	hipping namo	nipment and I	am the Primary
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that the Locatify that the waster idenerator's/Offeror's Printed 6. International Shipments fransporter signature (for exportant of the control of the co	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the contents	DN: I hereby declare that the espects in proper condition isignment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ding to applicable EPA Acknowledgm quantity generator Signature	nternational and na ent of Consent. or (b) (iff am a sr Port of a Date lea	nall quantity g	mental regulations	hipping name. If export sh	Mor	am the Primary
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that it I certify that it I certify that the waste it is enerator's/Offeror's Printed 6. International Shipments Transporter signature (for exporter 1 Printed/Typed ransporter 2 Printed/Typed	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the contents	N: I hereby declare that the espects in proper condition in aignment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S.	nternational and na ent of Consent. or (b) (iff am a sr Port of a Date lea	nall quantity g	mental regulations	hipping name. If export sh	Mor	th Day
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that it I certify that it I certify that the waste interestor's/Offeror's Printed for exporter signature (for exporter 1 Printed/Typed ransporter 2 Printed/Typed 8, Discrepancy	RROR'S CERTIFICATIO acarded, and are in all re the contents of this consi minimization statement in Typed Name Import to xports only): ment of Receipt of Mater Name	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accorns of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S.	nternational and na ent of Consent. or (b) (iff am a sr Port of a Date lea	nall quantity g	mental regulations	s. If export sh	Mor	th Day
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that the waste renerator's/Offeror's Printed 6. International Shipments fransporter signature (for exporter 1 Printed/Typed ransporter 2 Printed/Typed 8. Discrepancy Indication	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the consiminimization statement of the contents of the conten	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S.	nternational and na ent of Consent. or (b) (iff am a sr	antry/exit:ving U.S.:	mental regulations enerator) is true.	ejection	Mor	am the Primary th Day th Day th Day
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that the waste repensation of the certify that the waste repensation of the certify that the waste repensation of the certify that the waste repensation of the certific that the waste repensation of the certific that th	ROR'S CERTIFICATIOn acarded, and are in all rehe contents of this consiminimization statement in the contents of the consiminimization statement of the contents of the conten	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S.	ent of Consent. or (b) (iff am a sr Port of a Date lea	antry/exit:ving U.S.:	enerator) is true.	ejection	Mor	am the Primary th Day th Day th Day
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that the waste I certify that the	ROR'S CERTIFICATIO acarded, and are in all re he contents of this consi minimization statement is import to exports only): ment of Receipt of Mater Name Space Quan enerator)	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S.	ent of Consent. or (b) (iff am a sr Port of a Date lea	antry/exit:ving U.S.:	enerator) is true.	ejection	Mor Mor	th Day th Day The Day
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that the waste I certify that the	ROR'S CERTIFICATIO acarded, and are in all re he contents of this consi minimization statement is import to exports only): ment of Receipt of Mater Name Space Quan enerator)	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	ing to applicable EPA Acknowledgm quantity generator Signature Export from U.S. Signature	ent of Consent. or (b) (iff am a sr Port of a Date lea	antry/exit:ving U.S.:	enerator) is true.	ejection	Mor Mor	am the Primary th Day th Day th Day
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that it I certify that it I certify that the waste it Generator's/Offeror's Printed 6. International Shipments Transporter signature (for e) 17. Transporter Acknowledge Transporter 1 Printed/Typed 18. Discrepancy 18a. Discrepancy Indication 18b. Alternate Facility (or General International Internati	RROR'S CERTIFICATIO acarded, and are in all re- he contents of this consi- minimization statement in Typed Name Import to exports only): ment of Receipt of Mater Name Space Quan enerator) Facility (or Generator)	No.: I hereby declare that the espects in proper condition of signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	Signature Signature	nternational and na ent of Consent. or (b) (iff am a sr Port of a Date less Residue Manifest Reference	antry/exit:ving U.S.:	Partial Re	ejection	Mor Mor	th Day th Day The Day
5. GENERATOR'S/OFFE marked and labeled/pla Exporter, I certify that it I certify that it I certify that the waste it Generator's/Offeror's Printed 6. International Shipments Transporter signature (for e) 7. Transporter Acknowledge Transporter 1 Printed/Typed Transporter 2 Printed/Typed Transporter 2 Printed/Typed Transporter 3 Printed/Typed Transporter 4 Printed/Typed Transporter 5 Printed/Typed Transporter 6 Printed/Typed Transporter 7 Printed/Typed Transporter 8 Printed/Typed Transporter 9 Printed/Typed	RROR'S CERTIFICATIO acarded, and are in all re- he contents of this consi- minimization statement in Typed Name Import to exports only): ment of Receipt of Mater Name Space Quan enerator) Facility (or Generator)	DN: I hereby declare that the espects in proper condition to signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	Signature Signature	nternational and na ent of Consent. or (b) (iff am a sr Port of a Date less Residue Manifest Reference	antry/exit:ving U.S.:	enerator) is true.	ejection	Mor Mor	th Day th Day The Day
5. GENERATOR'S/OFFE marked and labeled/ple Exporter, I certify that the waste I certify that the local ple I certify that the same in the certify that the same in the certify that the same in the certify that the same in the certify that the waste I certify that the waste I certify that the certify that the certify that the certify that the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification is a certification of the certification in the certification of the certification is a certification of the certifica	ROR'S CERTIFICATIO acarded, and are in all re- he contents of this consi minimization statement is iTyped Name Import to xports only): ment of Receipt of Maten Name Space Quan enerator) Facility (or Generator)	DN: I hereby declare that the espects in proper condition to signment conform to the term identified in 40 CFR 262.27	for transport accomes of the attached (a) (if I am a large	eent, disposal, and	recycling systems	antry/exit:	Partial Re	ejection	Mor Mor	th Day th Day The Day

	NON-HAZARDOUS 1. Generator ID Number	2 Page 1 of	3. Emergency Respon	nse Phone	4. Waste	Tracking Numb	er			
1	WASTE MANIFEST	Z. rugo roi	o. Emergency recopor	4. Waste	THE RESERVE THE PROPERTY OF TH					
	WAD988489217	4	800-337-745				0-050316			
	Generator's Name and Mailing Address Att: Jose	h Bernthal	Generator's Site Addr	Matter Market Control of the	t than mailing add	ress)				
	Skotdal Real Estate		Skotdal Real E							
П	2707 Colby Avenue Suite 1200 PO Box 5267		1419 Avenue I							
	Everett WA 98208 Generator's Phone: 255, 241, 5400		Snohomish V	NA RASART	dia.					
	6. Transporter 1 Company Name				U.S. EPA ID	Number				
П					****					
	7. Transporter 2 Company Name					U.S. EPA ID Number				
П	7. Hansporter 2 Company Name	U.S. EF A 16	U.S. EFAID Nomber							
Ш	Designated Facility Name and Site Address	1000			U.S. EPA ID	Number				
П	Petroleum Reciencing Service Inc. Deather U	allel								
	SOOS Faylor Way (D) 4716. Airport 1	way 5					(7)			
П	Facility's Phone:	94004			11111					
	Faulity S Filone.	1 010 0	10. Co	ntainers	11. Total	12. Unit	Contractor Contractor			
П	Waste Shipping Name and Description		No.	Type	Quantity	Wt./Vol.				
	(1000) 4		140.	туре	Guanny	**************************************	and the standard and second			
H	Material Not Regulated By DOT (Previously contained I	IDW Soil/Wi	ater)							
ATC					-	D				
ER			022	DIM	850	1				
GENERATOR	2.					1/4				
0						1				
						(V)				
	3.				-	1 10				
	G.					0				
						100				
						1				
	4.					1 1/2				
						0				
	13. Special Handling Instructions and Additional Information									
	4) 5(0) D									
	1) 3101-5									
	1)57+1-1) (1+ 1- 3) 57+7.									
	-//									
	14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of the	nis consignment a	re fully and accurately	described abo	ve by the proper s	shipping name,	and are classified, packaged.			
	marked and labeled/placarded, and are in all respects in proper condition for transport as	ccording to applic	able international and	national govern	nmental regulation	is.	Salar vicana (Linesa)			
	Generator's/Offeror's Printed/Typed Name		nature	0 /			Month Day Year			
*	Travil forthu)	1	10	HW.			15 3 16			
-	15 International Shinments		- 0				9 9			
INTL	import to U.S.	Export from L		f entry/exit:						
_	Transporter Signature (for exports only):		Date	eaving U.S.:						
EB	16. Transporter Acknowledgment of Receipt of Materials						Marin B. M.			
TRANSPORTER	Transporter 1 Printed/Typed Name	Sig	nature				Month Day Year			
8	Transporter 2 Printed/Typed Name	- 5	1 8				05 03 18			
SS	Transporter 2 Printed/Typed Name	Sig	nature				Month Day Year			
E										
-	17. Discrepancy									
1	43 November Control Co						The second second			
Н	17a. Discrepancy Indication Space Quantity Type		Residue		Partial P	lejection	Full Rejection			
	***		Manifest Referen	ce Number:	712 22					
TY	17b. Alternate Facility (or Generator)	U.S. EPA II	U.S. EPA ID Number							
Ę										
A	Facility's Phone:				1					
Q	17c. Signature of Alternate Facility (or Generator)						Month Day Year			
ATE		1								
GN					William Committee	SUI SMOOTHNIA	walled the special and the series			
DESIGNATED FACILITY										
D										
1										
	18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the	he manifest excep	t as noted in Item 17a							
	Printed/Typed Name		nature				Month Day Year			
V		1								



Remit to: **Adler Tank Rentals** P.O. Box 45081 San Francisco, CA 94145-0081

Invoice

Invoice: Contract: 4173410 140455

Customer PO: Invoice Date:

N/A 11-MAR-16

Customer Information

Questions about this invoice?

DH Environmental, Inc. 1011 SW Klickitat Way Ste 210C Seattle, WA 98134-1162

Mob for A6780 on 03/10/16

Contact Name: Email:

ATR-Ginger Allman

Phone:

ginger.allman@mgrc.com 281-715-2023

Fax:

866-431-3255

All Other Inquiries: Salesperson: 509-724-6797 Ross Fricke

Branch:

Tacoma, WA

Location: 1419 Avenue D Snohomish, WA 98290

Asset # Description Mobilization - Hourly

Tax Qty Days 5

Price Per 125.00

Total

625.00

Sub Total:

\$625.00

Taxes:

\$55.00

Remit Total:

\$680.00

SPECIAL INSTRUCTIONS

TERMS: NET DUE UPON RECEIPT

This transaction is subject to the terms and conditions of Adler Tank Rentals.

FOR PROPER CREDIT - PLEASE DETACH AND RETURN WITH PAYMENT TO THE REMIT TO ADDRESS ABOVE.

REMITTANCE COPY for DH Environmental, Inc.

Amount enclosed \$ Please explain if the amount is different from the invoice amount:

Account: Invoice: 65237

Contract:

4173410 140455

Invoice Date:

11-MAR-16 \$680.00

Thank you for the opportunity to serve you. We appreciate your business.

Remit Total:

Page 1



Remit to: Adler Tank Rentals P.O. Box 45081 San Francisco, CA 94145-0081





Invoice

Invoice Contract Customer PO Invoice Date:

4178212 140455 N/A 31-MAR-16

Customer Information

Questions about this invoice?

DH Environmental, Inc.

1011 SW Klickitat Way Ste 210C Seattle, WA 98134-1162

Contact Name: Email: ATR-Ginger Allman

Phone:

ginger.allman@mgrc.com 281-715-2023

Fax

866-431-3255

All Other Inquiries: Salesperson: 509-724-6797

Branch:

Ross Fricke Tacoma, WA

Location:

1419 Avenue D

Snohomish, WA 98290

Description

Price Per Qty Days 26.00

Total 572.00

Asset # A6780

Mini Frac Tank - Rent 03/10/2016 to 03/31/2016

1 22

Sub Total: Taxes: \$572.00 \$50.34

Remit Total:

\$622.34

SPECIAL INSTRUCTIONS

TERMS: NET DUE UPON RECEIPT

FOR PROPER CREDIT - PLEASE DETACH AND RETURN WITH PAYMENT TO THE REMIT TO ADDRESS ABOVE.

REMITTANCE COPY for DH Environmental, Inc.

Amount enclosed S

Please explain if the amount is different from the invoice amount

65237 Account 4178212 invoice: 140455 Contract Invoice Date 31-MAR-16

Remit Total:

\$622.34

Thank you for the opportunity to serve you. We appreciate your business

Page 1



Remit to: Adler Tank Rentals PO Box 45081 SAN FRANCISCO, CA 94145-0081

Invoice

Invoice: Contract: Customer PO:

4184765 140455 N/A

Invoice Date:

30

1

30-Apr-2016

Customer Information

DH Environmental, Inc.

1011 SW Klickitat Way Suite 210C

SEATTLE, WA 98134

Location:

1419 Avenue D

SNOHOMISH, WA 98290

Questions about this invoice?

Contact Name:

ATR-Ginger Allman

Email: Phone: ginger.allman@mgrc.com

Fax:

281-715-2023 866-431-3255

All Other Inquiries:

509-724-6797

Salesperson: Branch: Ross Fricke

Tacoma, WA

Serial Number A6780

Description

Mini Frac Tank - Rent 04/01/2016 to 04/30/2016

Tax Qty.

Yes

Days Price Per

Total

26.00 780.00

Sub Total:

\$780.00

Tax:

\$70.98

Remit Total:

\$850.98

SPECIAL INSTRUCTIONS

TERMS: NET DUE UPON RECEIPT

This transaction is subject to the terms and conditions of Adler Tank Rentals. FOR PROPER CREDIT, PLEASE DETACH & RETURN WITH PAYMENT TO THE REMIT TO ADDRESS ABOVE.

Remittance for: DH Environmental, Inc.

Amount enclosed \$

Please explain if the amount is different from the invoice

amount:

Account:

65237

Invoice: Contract: 4184765

Invoice Date:

140455 30-Apr-2016

Remit Total:

\$850.98

Thank you for the opportunity to serve you. We appreciate your business.



Remit to: Adler Tank Rentals PO Box 45081 SAN FRANCISCO, CA 94145-0081

Invoice

Invoice: Contract: Customer PO:

Invoice Date: 05-May-2016

Customer Information

DH Environmental, Inc.

1011 SW Klickitat Way Suite 210C

SEATTLE, WA 98134

Location:

1419 Avenue D

SNOHOMISH, WA 98290

Questions about this invoice?

Fax:

Contact Name:

Email: Phone: ATR-Ginger Allman ginger.allman@mgrc.com 281-715-2023

866-431-3255 509-724-6797

All Other Inquiries: Salesperson:

Branch:

Ross Fricke Tacoma, WA

4185431

140455

N/A

Total Tax Qty. Days Price Per Serial Description Number 78.00 A6780 Mini Frac Tank - Rent 05/01/2016 to 05/03/2016 Yes 26.00 1 3 625.00 Yes 5 125.00 Demobilization - Hourly Demob A6780 on 05/03/16

Sub Total: \$703.00

Tax: \$63.98 Remit Total: \$766.98

SPECIAL INSTRUCTIONS

TERMS: NET DUE UPON RECEIPT

This transaction is subject to the terms and conditions of Adler Tank Rentals.

FOR PROPER CREDIT, PLEASE DETACH & RETURN WITH PAYMENT TO THE REMIT TO ADDRESS ABOVE.

Remittance for: DH Environmental, Inc.

Amount enclosed \$_

Please explain if the amount is different from the invoice

amount:

Account: Invoice:

65237 4185431

Contract: 140455 Invoice Date: 05-May-2016

Remit Total:

\$766.98

Thank you for the opportunity to serve you. We appreciate your business.