

Interim Remedial Action Report

**Northwest Pipeline LLC
Mount Vernon Compressor Station
15498 Lange Road
Mount Vernon, Washington 99273**

Latitude 48.423 N – Longitude 122.216 W
Voluntary Cleanup Program # NW2008
Facility Site ID # 2684
Cleanup Site ID # 4766

Prepared For:

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1.0 INTRODUCTION

On behalf of Northwest Pipeline LLC (NWP), Environmental Partners, Inc. (EPI) is pleased to present this Interim Remedial Action Report (IRA Report) for the Mt Vernon Compressor Station (Mt Vernon C/S) located at 15498 Lange Road, Mount Vernon, Washington (subject property). The location of the subject property is presented on Figure 1. NWP is the sole owner of the subject property.

This document has been prepared as a continuation of: (1) the assessment and remediation initiated by NWP during the 2005/2006 Capacity Replacement Project (CRP) and (2) statements made in NWP's "commitment letter" dated January 19, 2006, which indicated the company's commitment to assessing and, as necessary, remediating its remaining facilities in Washington following the CRP. This IRA Report, and the work documented herein, are intended to meet the remediation and reporting requirements of the Model Toxics Control Act (RCW 70.105D) and implementing regulations (Washington Administrative Code [WAC] 173-340; collectively referred to in this report as MTCA).

The subject property is enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) as VCP Project No. NW2008 and Ms. Louise Bardy is the acting Ecology Project Manager. The Ecology Facility/Site ID number is 2684.

Due to the discovery of a wide-spread chromium issue, remedial actions are not complete. This report is being submitted as an interim action to document the removal of all COCs in soil, except chromium. A final Cleanup Action Report will be submitted after completion of all remedial actions at the subject property.

2.0 BACKGROUND

This section summarizes the pertinent background information for the interim remedial action (IRA) documented herein.

2.1 Facility Description

The subject property consists of a compressor station facility within a fenced and locked enclosure. The area inside the fence is approximately 9.9 acres in size. The facility is located northwest of Lange Road and can be accessed by means of the Plant Road off of Lange Road at approximately 48° 25' 21" North latitude, 122° 12' 57" West longitude.

The compressor station facility Standard Industrial Classification (SIC) number is 4922 and the North American Industry Classification System (NAICS) number is 486210.

A representation of current features at the subject property is presented on Figure 2. The fenced enclosure includes three compressor complexes identified in this report as Compressor Complexes A, B, and C. There are six large buildings plus numerous support structures, and aboveground storage tanks (ASTs). Piping at the facility and 30-inch and 26-inch gas transmission mainlines traverse the eastern edge of the enclosure. Suction and discharge piping tee off of the main lines along the eastern fence and traverse east-west into the compressor complexes at the facility. A detailed description of the

structures and appurtenances present at the subject property is included in the *Site Condition Summary and Sampling Plan*, dated December 2005, and previously submitted to Ecology.

2.2 Prior Work and Communications

Prior to IRA implementation, NWP prepared a *Remedial Investigation and Cleanup Action Plan* (RI-CAP), dated November 14, 2012, presenting the current site conditions, remedial objectives, contaminants of concern (COCs), associated remediation levels (RELs) and cleanup levels (CULs), and technical basis for conducting a remedial action. This document was submitted to Ecology for review and approval prior to implementation.

Ecology approved the selected remedial action presented in the RI-CAP via an opinion letter dated November 5, 2013.

2.3 Remedial Areas and Hot Spots

The RI-CAP serves as the basis for the remedial actions documented herein. The reader is referred to this document for all site characterization details and the development of the RELs and CULs used for the remedial actions documented in this report.

There are two Remedial Areas (Remedial Areas 1 and 2) at the Mt Vernon C/S. The Remedial Areas are depicted on Figure 2. The COCs and distribution of contamination for each Remedial Area are described in Table MVCS-12 of the RI-CAP.

The summary of remedial goals and methods for remedial areas is included in Table MVCS-13 of the RI-CAP, which is included herein as Attachment A. As documented in the RI-CAP, remedial actions were planned as a combination of remedial excavation with off-site disposal and institutional controls. Active remedial actions were implemented in Remedial Area 1 as a component of the overall remedial action. Remedial Area 2 is planned to be addressed solely by institutional controls. The area subject to institutional controls will be documented in a future Cleanup Action Report.

Prior to conducting the remedial actions, it was necessary to conduct TEE hot spot removals to show compliance at the subject property with applicable TEE regulations documented in WAC 173-340-7490. The approach for TEE hot spot removals was presented in the *Terrestrial Ecological Evaluation Program for Northwest Pipeline GP I-5 Corridor Compressor Station Facilities* dated August 16, 2011 (TEE Program Document), which was approved by Ecology via a letter dated August 30, 2011. The methodology for the hot spot removal was documented in the RI-CAP.

There were 14 TEE hot spot removal areas identified at the Mt Vernon C/S. The location, COPECs, and the planned excavation extents are indicated on Figure 3. Hot Spot removals are documented in Section 4.0. Hot spot removal areas are independent of Remedial Areas.

It should be noted that during hot spot excavations performed at the subject property, extensive wide-spread chromium impacts were detected in soil at concentrations that exceeded the TEE screening levels used as the basis for hot spot removal. Therefore, hot spot removal occurred in Hot Spot locations 1 through 5, 7, 9, 11, and 13. Hot Spots locations 6, 8, and 10, and 12 were deferred for future chromium assessment.

Since performance of the IRA activities documented herein, NWP has performed a site-specific TEE for chromium impacts, as well as extensive assessment to delineate chromium impacts at the facility. The assessment of chromium impacts and associated proposed Cleanup Action Plan will be submitted under separate cover.

3.0 OBJECTIVES

The general objectives of this IRA Report are to document the remedial actions conducted at the subject property to date. The specific objectives include:

- Document excavation and performance sampling performed in Terrestrial Ecological Evaluation (TEE) Hot Spot locations 1 through 5, 7, 9, 11, and 13.;
- Document the removal and off-site disposal of soil exceeding site-specific RELs and/or CULs, as documented in the RI-CAP; and
- Present the results of the performance samples collected during the IRA.

4.0 TEE HOT SPOT REMOVAL

There was a total of 14 planned TEE hot spot removal areas. The location, COPECs, and the planned excavation extents are indicated on Figure 3. The assessment data triggering each hot spot removal are also indicated on Figure 3. These data are also documented in the RI-CAP. As documented in the TEE Program Document, the COPECs subject to hot spot removal at the Mt Vernon C/S include:

- Chromium; and
- Mercury.

As previously mentioned, due to the presence of wide-spread chromium impacts discovered during hot spot removal, hot spot removals only occurred in Hot Spot locations 1 through 5, 7, 9, 11, and 13.

Each Hot Spot area was addressed by excavation with off-site disposal. The soil was disposed of at Waste Management's Subtitle D compliant landfill located in Hillsboro, Oregon. Waste disposal is discussed in Section 5.3. Following the excavation activities, performance samples were collected and analyzed for the applicable COPECs.

The objective of the hot spot removal for chromium and mercury was to comply with TEE CULs documented in NWPL GP's *Terrestrial Ecological Evaluation Summary Report, Northwest Pipeline GP I-5 Corridor Compressor Station Facilities*, dated February 19, 2013, which was formally approved by Ecology via memorandum dated September 29, 2014. The TEE CULs for these compounds are as follows:

- Chromium – 42 mg/kg; and
- Mercury – 0.1 mg/kg.

The objective of the hot spot removals for chromium and mercury was for site-wide compliance with Ecological Indicator Soil Concentrations (EICs) detailed in MTCA Table 749-3. This objective was achieved for mercury.

Due to the wide-spread chromium impacts detected during the chromium hot spot removal efforts, this objective was not achieved for chromium. The conditions of soil within each chromium hot spot removal conducted is documented in this report. Site-wide chromium assessment will be presented under separate cover.

The following Sections 4.1 through 4.9 describe the hot spot removals and follow-up sampling.

4.1 Hot Spot 1

Hot Spot 1 was excavated to remove soil impacted by chromium. The excavation area is shown on Figure 4. The excavation in this area was advanced to 12 inches below ground surface (bgs).

A total of five soil performance samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 4.

The soil samples were collected from the sidewalls and bottom of the excavation. Each of the samples represents the soil conditions at the final limits of the excavation area. Sample analytical results indicated that the objective of hot spot removal for chromium was achieved and no additional excavation was necessary.

4.2 Hot Spot 2

Hot Spot 2 was excavated to remove soil impacted by chromium. The excavation area is shown on Figures 5 and 5A.

The excavation in this area was advanced to 30 inches bgs

A total of eight soil samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figures 5 and 5A.

Six soil samples were collected from the sidewalls of the excavation, and two of samples were collected from the excavation bottom. Five of the soil samples represent the soil conditions at the final limits of the excavation area; three represent excavated soils. The soil samples collected at the final limits of the excavation area are indicated on Figure 5A.

Sample analytical results indicated that the objective of hot spot removal for chromium was not achieved. Site-wide chromium assessment will be presented under separate cover.

4.3 Hot Spot 3

Hot Spot 3 was excavated to remove soil impacted by chromium. The excavation area is indicated on Figures 6 and 6A.

The excavation in this area was advanced to 12 inches bgs.

A total of eight soil samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figures 6 and 6A.

Seven soil samples were collected from the sidewalls of the excavation, and one of samples was collected from the excavation bottom. Five of the soil samples represent the soil conditions at the final limits of the excavation area; three represent excavated soils. The soil samples collected at the final limits of the excavation area are indicated on Figure 6A.

Sample analytical results indicated that the objective of hot spot removal for chromium was not achieved. Site-wide chromium assessment will be presented under separate cover.

4.4 Hot Spot 4

Hot Spot 4 was excavated to remove soil impacted by mercury. The excavation area is indicated on Figure 7.

The excavation in this area was advanced to 30 inches bgs.

A total of four soil samples were collected and submitted for mercury analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 7.

Hot spot 4 was excavated against a concrete footing and the excavation did not extend vertically past the bottom of the footing. Therefore, no southern western sidewall sample was collected. Three of the soil samples were collected from sidewalls and one was collected from the excavation bottom. Each of the samples represents the soil conditions at the final limits of the excavation area.

Sample analytical results indicated that the objective of hot spot removal for mercury was achieved and no additional excavation was necessary.

4.5 Hot Spot 5

Hot Spot 5 was excavated to remove soil impacted by chromium. The excavation area is indicated on Figures 8 and 8A.

The excavation in this area was advanced to 30 inches bgs.

A total of eight soil samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figures 8 and 8A.

Six soil samples were collected from the sidewalls of the excavation, and two samples were collected from the excavation bottom. Four of the soil samples represent the soil conditions at the final limits of the excavation area; four represent excavated soils. The soil samples collected at the final limits of the excavation area are indicated on Figure 8A.

Sample analytical results indicated that the objective of hot spot removal for chromium was not achieved. Site-wide chromium assessment will be presented under separate cover.

4.6 Hot Spot 7

Hot Spot 7 was excavated to remove soil impacted by chromium. The excavation area is indicated on Figure 9.

The excavation in this area was advanced to 30 inches bgs.

A total of three soil samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 9.

Two of the soil samples were collected from sidewalls and one sample was collected from the excavation bottom. Each of the samples represents the soil conditions at the final limits of the excavation area.

Sample analytical results indicated that the objective of hot spot removal for chromium was not achieved. Site-wide chromium assessment will be presented under separate cover.

4.7 Hot Spot 9

Hot Spot 9 was excavated to remove soil impacted by chromium. The excavation area is indicated on Figure 10.

The excavation in this area was advanced to 30 inches bgs.

One soil sample was collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 10.

No sidewall samples were collected from this excavation and one soil sample was collected from the excavation bottom. This sample represents the soil conditions at the final limits of the bottom of the excavation area.

Sample analytical results indicated that the objective of hot spot removal for chromium was not achieved. Site-wide chromium assessment will be presented under separate cover.

4.8 Hot Spot 11

Hot Spot 11 was excavated to remove soil impacted by mercury. The excavation area is indicated on Figure 11.

The excavation in this area was advanced to 30 inches bgs.

A total of five soil samples were collected and submitted for mercury analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 11.

Four of the soil samples were collected from sidewalls and one sample was collected from the excavation bottom. Each of the samples represents the soil conditions at the final limits of the excavation area.

Sample analytical results indicated that the objective of hot spot removal for mercury was achieved and additional excavation is not necessary.

4.9 Hot Spot 13

Hot Spot 13 was excavated to remove soil impacted by chromium. The excavation area is indicated on Figure 12.

The excavation in this area was advanced to 12 inches bgs.

A total of five soil samples were collected and submitted for chromium analysis. Table 1 summarizes the analytical results for the samples collected. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figure 12 and 12A.

Hot spot 13 was excavated against a concrete footing and the excavation did not extend vertically past the bottom of the footing. Therefore, sidewall samples were not collected on the northern excavation sidewall. Four soil samples were collected from excavation sidewalls and one was collected from the excavation bottom. Four of the samples represent the soil conditions at the final limits of the excavation area; one sample represents excavated soil. The soil samples collected at the final limits of the excavation area are indicated on Figure 12A.

Sample analytical results indicated that the objective of hot spot removal for chromium was achieved and no additional excavation was necessary.

5.0 REMEDIAL ACTIONS

5.1 Remedial Excavations

Following hot spot removals, remedial excavations were conducted in Remedial Areas 1 at the subject property. The rationale for the remedial objective and associated RELs and CULs for each remedial area is documented in Table MVCS-13 of the RI-CAP.

Remedial excavations were conducted in each area utilizing manual excavation with off-site disposal. Soils were disposed of at Waste Management's Subtitle D-compliant Landfill located in Hillsboro, Oregon. Disposal is documented in Section 5.3. Following the excavation, performance samples were collected and analyzed for applicable COCs.

Remedial excavations and performance sampling activities are discussed in the following sections.

5.1.1 Remedial Area 1

The COCs requiring excavation for Remedial Area 1 are arsenic, cadmium, lead, and polychlorinated biphenyls (PCBs).

The objective for Remedial Area 1 was to remove impacted soils using the following RELs:

- 47 mg/kg for arsenic;
- 232 mg/kg for lead; and
- 25 mg/kg for PCBs.

The excavation for Remedial Area 1 ranged in depth from 6 inches to 36 inches bgs. The extent of these excavations is depicted on Figures 13 through 15A.

A total of 160 soil performance samples were collected from the excavation area. Samples were analyzed for arsenic, lead, and PCBs as indicated on Table 2, which summarizes the analytical results. Copies of the original laboratory reports are included in Attachment B. Sample locations and analytical results are indicated on Figures 13 through 15A.

Analytical results indicated that each of the final performance samples collected were in compliance with the RELs for arsenic, lead, and PCBs. Therefore, no additional excavation was necessary.

5.1.2 Remedial Area 2

The COCs for Remedial Area 2 are arsenic and cadmium. As documented in Table MVCS-13 of the RI-CAP, arsenic and cadmium impacts to soil do not require excavation and will be addressed using institutional controls. No excavation was performed in Remedial Area 2 during the IRA. The area to be addressed by institutional controls will be documented in a future final Cleanup Action Report.

5.2 Waste Disposal

Excavated soils were transported off-site to Waste Management's Subtitle D compliant Landfill located in Hillsboro, Oregon. A total of 243.43 tons of impacted soils were transported off-site for disposal. Weight tickets from these facilities are presented in Attachment C.

5.3 Site Restoration

Upon completion of the hot spot and remedial excavations, each area was backfilled using clean pit run backfill (i.e., sand) to the satisfaction of the NWP facility manager. After backfill was completed, the excavated areas were capped with approximately 6 inches of 5/8-minus surface gravel.

6.0 FINDINGS AND CONCLUSIONS

The following conclusions are supported by the actions and findings of the RA performed at the subject property:

- Hot spot removals were successful in Hot Spot locations 1, 4, 11, and 13. As a result, mercury has been eliminated as COPECs for the subject property. Chromium remains a COPEC for the subject property. Chromium assessment and an associated Cleanup Action Plan will be submitted under separate cover.
- With the exception of chromium, the IRA was effective at achieving the RELs and CULs documented in the Revised RI-CAP for Remedial Area 1 at the Mt. Vernon C/S facility. Final performance sampling clearly demonstrates compliance with Remedial Area-specific RELs and CULs for all other COCs.
- The remedial actions were performed in a manner consistent with the requirements of MTCA and other applicable regulations. The RA resulted in the removal and off-site disposal of 243.43 tons of impacted soil at an appropriately permitted facility.
- Chromium assessment and an associated CAP will be submitted under separate cover. After implementation of a CAP for chromium impacts, a final Cleanup Action Report will be submitted for the Mt. Vernon C/S.

7.0 LIMITATIONS

To the extent that preparation of this IRA Report has required the application of best professional judgment and the application of scientific principles, certain results of this work have been based on subjective interpretation. EPI makes no warranties express or implied, including and without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in this IRA Report is not to be construed as legal advice.

This IRA Report was prepared solely for NWP and the contents herein may not be used or relied upon by any other person without the express written consent and authorization of EPI.

Tables

Table 1 Summary of Hot Spot Areas Soil Analytical Data Interim Remedial Action Report Mount Vernon Compressor Station 15498 Lange Road, Mount Vernon, Washington						
Hot Spot	Sample Location	Sample Depth (Inches)	Sample Date	Chromium ^a	Mercury ^b	Final Performance Samples
Hot Spot 1	MV-HS1-1:12	12	9/25/14	28	--	X
	MV-HS1-2:6	6	9/25/14	21	--	X
	MV-HS1-3:6	6	9/25/14	8.2	--	X
	MV-HS1-4:6	6	9/25/14	36	--	X
	MV-HS1-5:6	6	9/25/14	32	--	X
Hot Spot 2	MV-HS2-1:24	24	9/25/14	150	--	
	MV-HS2-1:30	30	9/30/14	57	--	X
	MV-HS2-2:12	12	9/25/14	44	--	
	MV-HS2-2:12+12	12	9/30/14	60	--	X
	MV-HS2-3:12	12	9/25/14	53	--	
	MV-HS2-3:12+12	12	9/30/14	91	--	X
	MV-HS2-4:12	12	9/25/14	27	--	X
	MV-HS2-5:12	12	9/25/14	28	--	X
Hot Spot 3	MV-HS3-1:12	12	9/25/14	35	--	X
	MV-HS3-2:6	6	9/25/14	51	--	
	MV-HS3-2:6+12	6	9/30/14	82	--	X
	MV-HS3-3:6	6	9/25/14	12	--	X
	MV-HS3-4:6	6	9/25/14	62	--	
	MV-HS3-4:6+12	6	9/30/14	84	--	X
	MV-HS3-5:6	6	9/25/14	49	--	
	MV-HS3-5:6+12	6	9/30/14	81	--	X
Hot Spot 4	MV-HS4-1:24	24	9/25/14	--	0.051	X
	MV-HS4-2:12	12	9/25/14	--	0.095	X
	MV-HS4-3:12	12	9/25/14	--	0.066	X
	MV-HS4-4:12	12	9/25/14	--	0.064	X
Hot Spot 5	MV-HS5-1:24	24	9/25/14	72	--	
	MV-HS5-1:30	30	9/30/14	150	--	X
	MV-HS5-2:12	12	9/25/14	88	--	
	MV-HS5-2:12+12	12	9/30/14	70	--	X
	MV-HS5-3:12	12	9/25/14	170	--	
	MV-HS5-3:12+12	12	9/30/14	77	--	X
	MV-HS5-4:12	12	9/25/14	93	--	
	MV-HS5-4:12+12	12	9/30/14	95	--	X
Hot Spot 7	MV-HS7-1:24	24	9/30/14	89	--	X
	MV-HS7-2:12	12	9/30/14	72	--	X
	MV-HS7-3:12	12	9/30/14	76	--	X
Hot Spot 9	MV-HS9:12	12	10/2/14	88	--	X
Hot Spot 11	MV-CA-Q15:24	24	10/27/14	--	<1	X
	MV-CA-Q15:24A	24	10/27/14	--	<1	X
	MV-CA-Q15:24B	24	10/27/14	--	<1	X
	MV-CA-Q15:18C	18	10/27/14	--	<1	X
	MV-CA-Q15:24D	24	10/27/14	--	<1	X
Hot Spot 13	MV-HS13-1:12	12	9/25/14	38	--	X
	MV-HS13-3:6	6	9/25/14	20	--	X
	MV-HS13-4:6	6	9/25/14	31	--	X
	MV-HS13-5:6	6	9/25/14	66	--	X
	MV-HS13-5:6+12	6	9/30/15	26	--	X
TEE Cleanup Level ^c				42	14	

Notes:

All results presented in milligrams/kilogram (mg/kg).

Bold Bold results indicate that the compound was detected.

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

-- Not analyzed

^a Analyzed by EPA Method 6010B

^b Analyzed by EPA Method 200.8 and 7471

^c Based on the CULs documented in the *Terrestrial Ecological Evaluation for Northwest Pipeline GP I-5 Corridor Compressor Station Facilities* dated August 16, 2011.

Table 2
Summary of Soil Analytical Data
Interim Remedial Action Report
Mount Vernon Compressor Station
15498 Lange Road, Mount Vernon, Washington

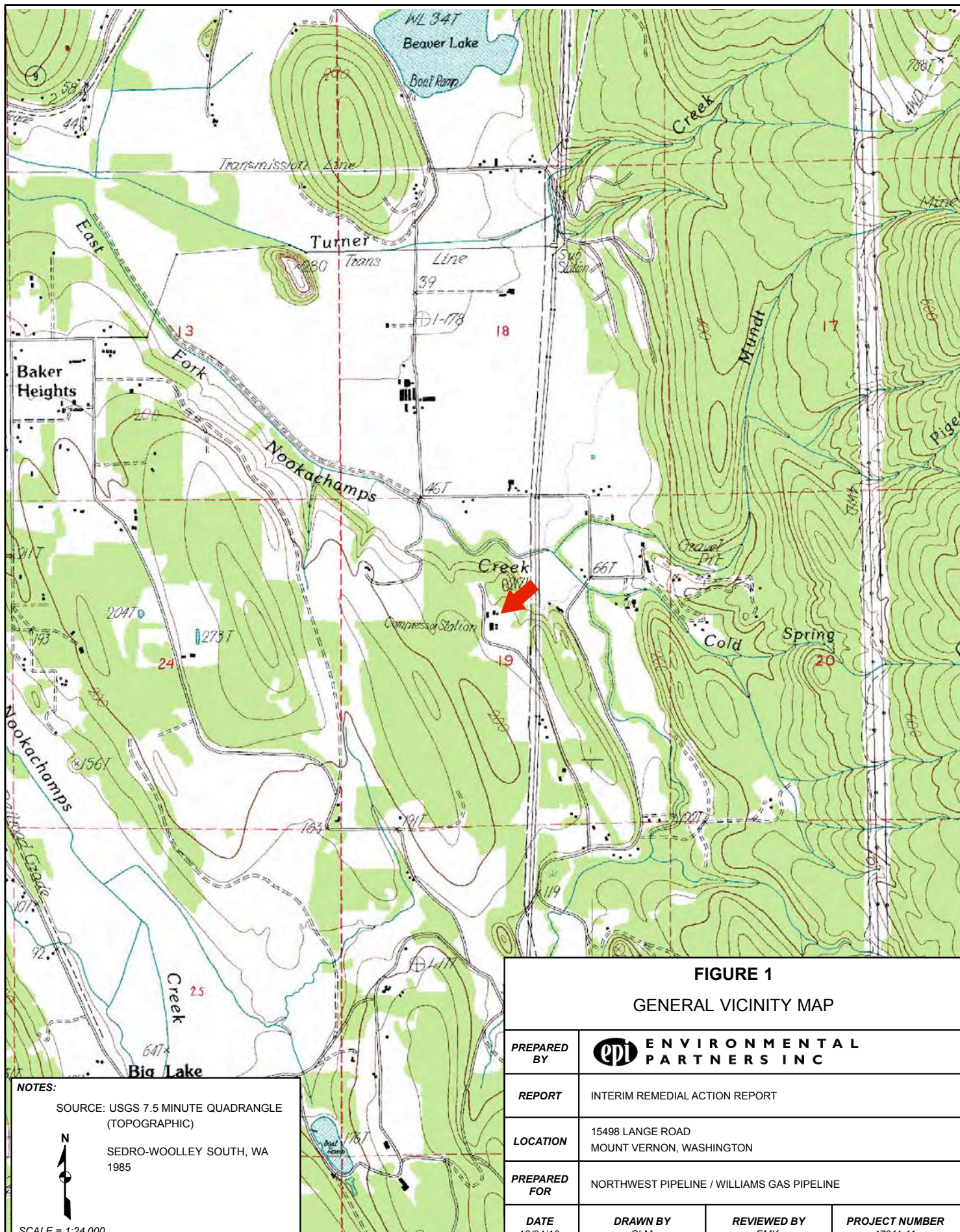
Sample Location	Sample Depth (Inches)	Sample Date	Arsenic ^a	Lead ^a	Total PCBs ^b	Final Performance Samples
MV-CA-M13:6	6	10/27/14	140	129	--	
MV-CA-M13:6+24	6	11/3/14	8.15	--	--	X
MV-CA-M14:12	12	10/27/14	38.7	36.8	--	X
MV-CA-M15:6	6	10/27/14	96.6	76.6	0.69	
MV-CA-M15:6+12	6	11/3/14	6.81	--	<0.2	X
MV-CA-M15:12	12	10/27/14	18.3	19.5	<0.02	X
MV-CA-M16:12	12	10/27/14	139	--	--	
MV-CA-M16:18	18	11/3/14	7.35	--	--	X
MV-CA-N13:24A	24	10/27/14	8.01	5.94	--	
MV-CA-N13:24B	24	10/27/14	54.7	49.3	--	
MV-CA-N13:24B+12	24	10/27/14	7.15	--	--	
MV-CA-N13:24C	24	10/27/14	7.91	9.96	--	
MV-CA-N13:24D	24	10/27/14	118	111	--	
MV-CA-N13:24D+12	24	11/3/14	6.73	--	--	
MV-CA-N13:36	36	10/27/14	9.24	9.01	--	X
MV-CA-N14:12	12	10/27/14	63	53.2	--	
MV-CA-N14:18	18	11/3/14	6.45	--	--	X
MV-CA-N15:12	12	10/27/14	28	27.3	--	X
MV-CA-N16:24A	24	10/27/14	13.5	13.8	<0.02	X
MV-CA-N16:24B	24	10/27/14	12.3	13.9	<0.02	X
MV-CA-N16:24C	24	10/27/14	31.4	26.8	<0.02	X
MV-CA-N16:18D	18	10/27/14	23.5	20.1	<0.02	X
MV-CA-N16:36	36	10/27/14	6.35	8.62	<0.02	X
MV-CA-N26:15	15	10/2/14	18	--	--	X
MV-CA-O12:12	12	10/27/14	11.8	--	--	X
MV-CA-O13:12	12	10/27/14	7.44	5.17	--	X
MV-CA-O14:12	12	10/27/14	5.61	7.95	--	X
MV-CA-O15:12	12	10/27/14	6.99	6.02	--	X
MV-CA-O23:12	12	10/2/14	13	--	--	X
MV-CA-O24:24	24	10/2/14	14	--	--	X
MV-CA-O25:30	30	10/20/14	22	--	--	X
MV-CA-O26:30	30	10/2/14	38	--	--	X
MV-CA-O27:15	15	10/2/14	30	--	--	X
MV-CA-P11:12	12	10/27/14	4.61	--	--	X
MV-CA-P13:12	12	10/27/14	6.54	7.65	--	X
MV-CA-P14:12	12	10/27/14	7.32	7.11	--	X
MV-CA-P15:12	12	10/27/14	6.78	7.95	--	X
MV-CA-P22:18	18	10/8/14	15	--	--	X
MV-CA-P24:18	18	10/8/14	93	--	--	
MV-CA-P24:18+12	18	10/21/14	12	--	--	X
MV-CA-P24:24	24	10/20/14	10	--	--	X
MV-CA-P25:12	12	10/20/14	8.9	--	--	X
MV-CA-Q11:12	12	10/27/14	69.8	51.6	--	
MV-CA-Q11:18	18	11/3/14	9.28	--	--	X
MV-CA-Q12:24A	24	10/27/14	7.95	7.4	--	
MV-CA-Q12:24B	24	10/27/14	6.48	11.2	--	
MV-CA-Q12:24C	24	10/27/14	7.28	8.13	--	
MV-CA-Q12:24D	24	10/27/14	15.1	15.2	--	
MV-CA-Q12:36	36	10/27/14	6.36	6.76	--	X
MV-CA-Q13:12	12	10/27/14	10.9	--	--	X
MV-CA-Q14:12	12	10/27/14	5.98	--	--	X
MV-CA-Q15:24	24	10/27/14	--	--	--	X
MV-CA-Q15:24A	24	10/27/14	5.31	6.17	<0.02	X
MV-CA-Q15:24B	24	10/27/14	6.17	8.75	--	X
MV-CA-Q15:18C	18	10/27/14	7.04	8.11	--	X
MV-CA-Q15:24D	24	10/27/14	6.03	6.99	--	X
MV-CA-Q22:36	36	10/2/14	10	--	--	X
MV-CA-Q23:12	12	10/20/14	11	--	--	X
MV-CA-Q24:12	12	10/2/14	66	--	--	
MV-CA-Q24:24	24	10/8/14	9.7	--	--	X
MV-CA-Q25:12	12	10/2/14	--	5.2	--	X
MV-CA-R10:12	12	10/27/14	3.87	--	--	X
MV-CA-R11:12	12	10/27/14	3.56	--	--	X
MV-CA-R12:12	12	10/27/14	4.71	6.73	--	X
MV-CA-R13:12	12	10/27/14	3.48	7.5	--	X
MV-CA-R14:12	12	10/27/14	3.96	--	--	X
MV-CA-R15:18B	18	10/27/14	--	--	<0.02	X
MV-CA-R15:24A	24	10/27/14	--	--	<0.02	X
MV-CA-R15:36	36	10/27/14	3.92	--	<0.02	X
MV-CA-R22:12	12	10/8/14	6.9	--	--	
MV-CA-R22:21	21	10/8/14	14	--	--	
MV-CA-R22:24	24	10/8/14	20	--	--	X
MV-CA-R23:21	21	10/8/14	5.2	--	--	
MV-CA-R23:30	30	10/20/14	11	--	--	X
MV-CA-R24:12	12	10/20/14	21	10	--	X
MV-CA-S10:12	12	10/27/14	5.3	--	--	X
MV-CA-S11:12	12	10/27/14	5.83	--	--	X
MV-CA-S14:12	12	10/29/14	3.43	--	--	X
MV-CA-S21:12	12	10/20/14	8.4	6.1	--	X
MV-CA-S22:27	27	10/8/14	100	--	--	
MV-CA-S22:30	30	10/8/14	220	--	--	
MV-CA-S22:36	36	10/21/14	13	--	--	X
MV-CA-S23:12	12	10/2/14	9.6	--	--	X
MV7-S32:6	6	9/25/14	59	--	--	
MV-CA-T10:6	6	10/27/14	93.4	--	--	
MV-CA-T10:6+24	6	11/3/14	41.1	--	--	X
MV-CA-T11:12	12	10/27/14	5.96	--	--	X
MV-CA-T12:6	6	10/27/14	134	--	--	
MV-CA-T12:6+24	6	11/3/14	11.2	--	--	X
MV-CA-T14:24	24	10/27/14	8.45	8.82	--	X
MV-CA-T16:6	6	10/27/14	4.74	--	--	X
MV-CA-T18:12	12	10/21/14	32	--	--	X
MV-CA-T19:12	12	10/21/14	10	--	--	X

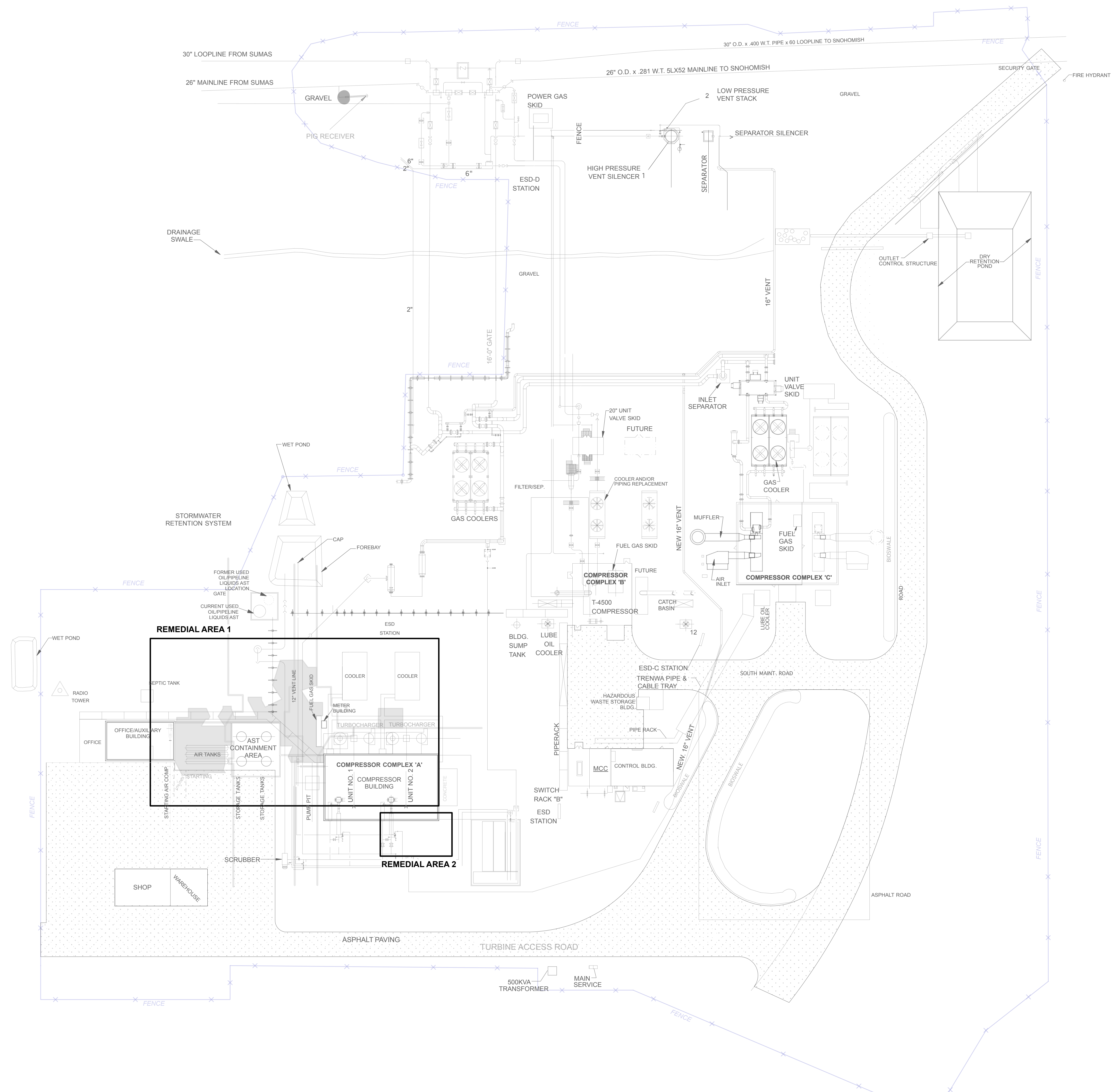
Table 2
Summary of Soil Analytical Data
Interim Remedial Action Report
Mount Vernon Compressor Station
15498 Lange Road, Mount Vernon, Washington

Sample Location	Sample Depth (Inches)	Sample Date	Arsenic ^a	Lead ^a	Total PCBs ^b	Final Performance Samples
MV-CA-T20:12	12	10/20/14	13	--	--	X
MV-CA-T21:12	12	10/20/14	26	--	--	
MV-CA-T21:18	18	10/8/14	92	--	--	
MV-CA-T22:24	24	10/8/14	430	--	--	
MV-CA-T22:30	30	10/21/14	14	--	--	X
MV-CA-T23:12	12	10/2/14	--	310	--	
MV-CA-T23:18	18	10/2/14	7.9	--	--	X
MV-CA-T23:24	24	10/8/14	--	9.2	--	X
MV7-T31:6	6	9/25/14	130	--	--	
MV7-T31:6+12	6	9/30/14	100	--	--	
MV7-T32:12	12	9/25/14	37	--	--	X
MV7-T32:6+12	6	9/30/14	240	--	--	
MV7-T33:6	6	9/25/14	33	--	--	X
MV-CA-U13:12	12	10/27/14	51.8	--	--	
MV-CA-U13:12+24	12	11/3/14	8.76	--	--	X
MV-CA-U17:12	12	10/21/14	15	--	--	X
MV-CA-U18:6	6	10/21/14	120	--	--	
MV-CA-U18:6+24	6	10/27/14	17.1	--	--	X
MV-CA-U19:12	12	10/21/14	850	--	--	
MV-CA-U19:18	18	10/27/14	9.58	--	--	X
MV-CA-U20:12	12	10/20/14	92	--	--	
MV-CA-U20:18	18	10/27/14	8.88	--	--	X
MV-CA-U21:12	12	10/8/14	49	35	--	
MV-CA-U21:24	24	10/21/14	8.3	--	--	X
MV-CA-U22:24	24	10/20/14	10	--	--	X
MV-CA-U23:12	12	10/2/14	15	--	--	X
MV7-U32:6	6	9/25/14	18	--	--	X
MV-CA-V16:6	6	10/21/14	190	--	--	
MV-CA-V16:6+24	6	10/27/14	41	--	--	X
MV-CA-V20:12	12	10/20/14	87	80	--	
MV-CA-V20:18	18	10/27/14	11.3	--	--	
MV-CA-V20:24	24	10/8/14	7.2	--	--	X
MV-CA-V21:30	30	10/8/14	9.2	--	--	
MV-CA-V21:36	36	10/20/14	8.8	--	--	X
MV-CA-V23:6	6	10/2/14	28	--	--	X
MV-CA-W18:6	6	10/21/14	12	--	--	X
MV-CA-W19:12	12	10/8/14	36	--	--	
MV-CA-W19:24	24	10/20/14	70	--	--	
MV-CA-W19:24+12	24	10/27/14	8.81	--	--	X
MV-CA-W20:36	36	10/8/14	86	--	--	
MV-CA-W20:42	42	10/21/14	13	--	--	X
MV-CA-W21:12	12	10/2/14	11	--	--	X
MV-CA-W22:6	6	10/2/14	14	--	--	X
MV-CA-X18:12	12	10/21/14	15	--	--	X
MV-CA-X19:12	12	10/20/14	7	--	--	X
MV-CA-X20:24	24	10/8/14	92	--	--	
MV-CA-X20:30	30	10/21/14	12	--	--	X
MV-CA-X21:12	12	10/20/14	8.9	--	--	X
MV-CA-Y18:12	12	10/8/14	170	--	--	
MV-CA-Y18:18	18	10/21/14	16	--	--	X
MV-CA-Y19:12	12	10/20/14	160	--	--	
MV-CA-Y19:18	18	10/27/14	13.6	--	--	X
MV-CA-Y20:12	12	10/20/14	19	--	--	
MV-CA-Y20:18	18	10/8/14	13	--	--	X
MV-CA-Y21:12	12	10/2/14	11	--	--	X
MV-CA-Z17:6	6	10/8/14	52	--	--	
MV-CA-Z17:6+12	6	10/21/14	110	--	--	
MV-CA-Z17:6+36	6	10/27/14	44.7	--	--	X
MV-CA-Z18:12	12	10/20/14	8.6	--	--	X
MV-CA-Z19:18	18	10/8/14	190	--	--	
MV-CA-Z19:18+12	18	10/21/14	15	--	--	X
MV-CA-Z19:24	24	10/8/14	10	--	--	X
MV-CA-Z20:6	6	10/2/14	10	--	--	X
MV-CA-AA18:12	12	10/8/14	130	--	--	
MV-CA-AA18:12+12	12	10/21/14	16	--	--	X
MV-CA-SB7-1009:12	12	10/20/14	18	10	--	X
MV-CA-SB7-0909:12	12	10/20/14	--	4.9	--	X
Remediation Level ^c			47	232	25	

Notes:
All results presented in milligrams/kilogram (mg/kg).
Bold Bold results indicate that the compound was detected.
 Shaded cells indicate that the compound was detected at a concentration greater than the associated remediation level.
-- Not analyzed
a Analyzed by EPA Method 200.8 and 6010B.
b Analyzed by EPA Method 8082A.
c Remediation level documented in RI-CAP dated November 14, 2012 (Table MVCS-12).

Figures





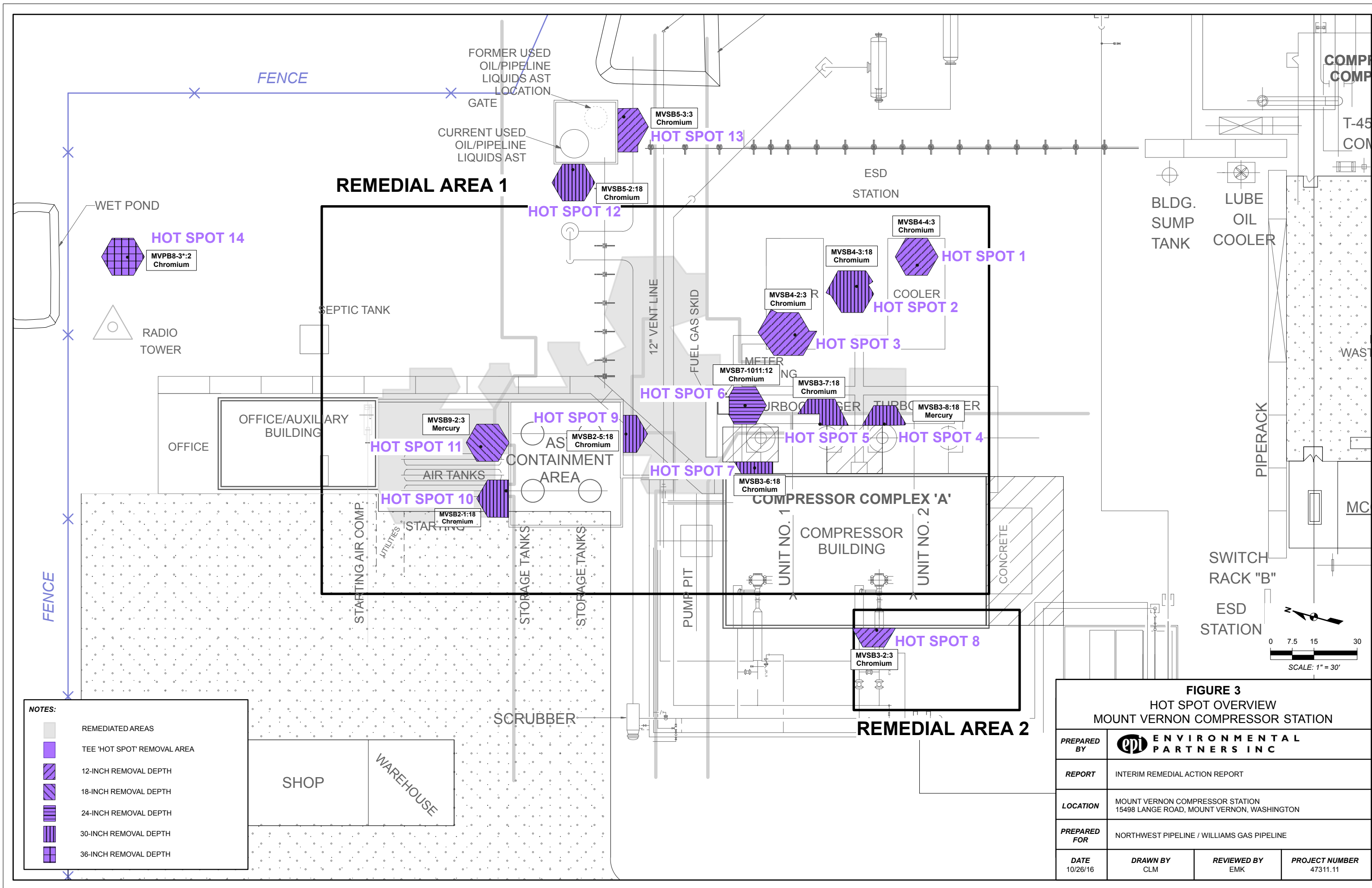
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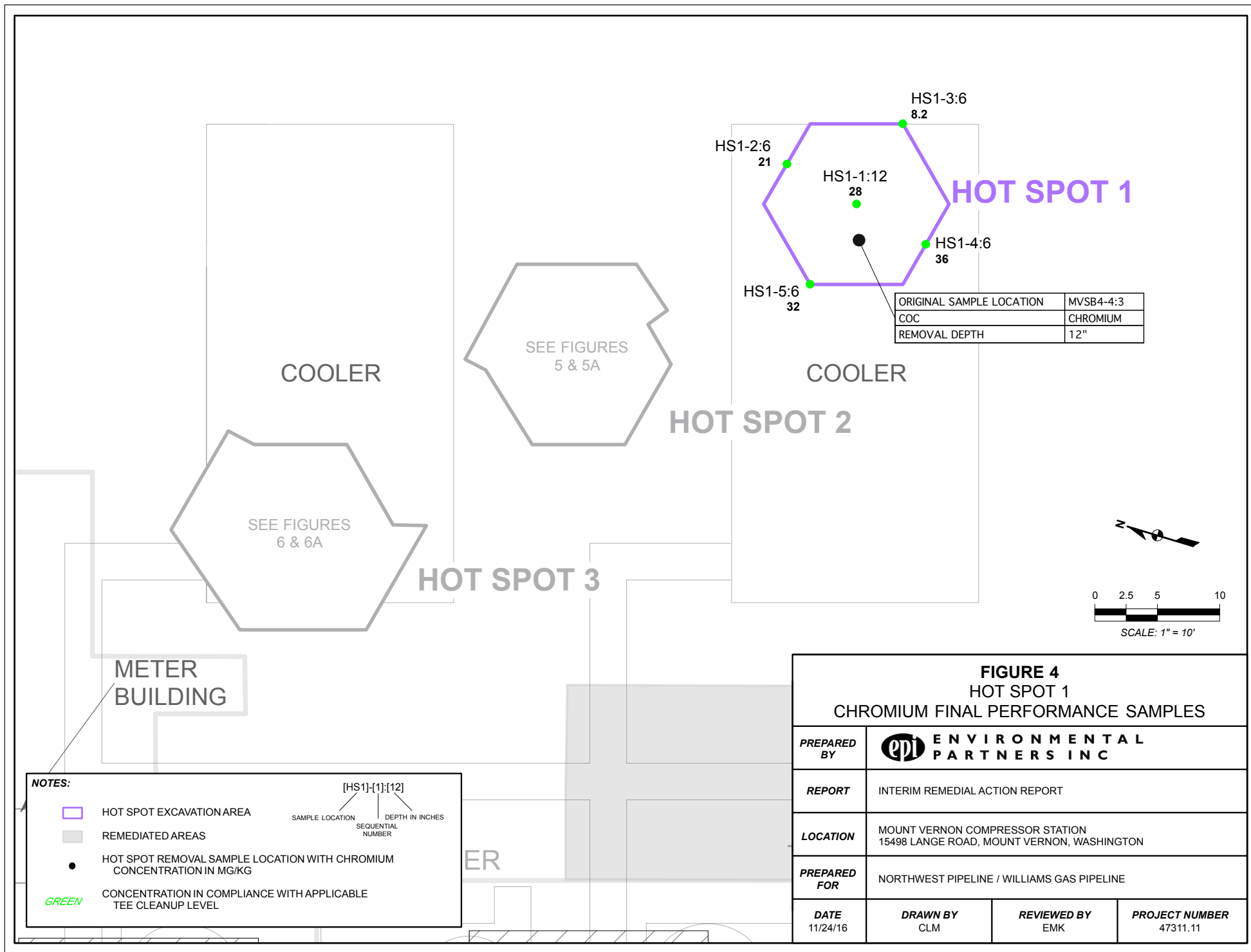
REMEDIATED AREAS

0 10 20 40

SCALE: 1" = 40'

FIGURE 2 SITE REPRESENTATION				
PREPARED BY	ENVIRONMENTAL PARTNERS INC.			
REPORT	INTERIM REMEDIAL ACTION REPORT			
LOCATION	MOUNT VERNON COMPRESSOR STATION 15468 LANGE ROAD, MOUNT VERNON, WASHINGTON			
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE			
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER	
10/24/18	CLM	EMK	47311.11	





ORIGINAL SAMPLE LOCATION	MVSB4-4:3
COC	CHROMIUM
REMOVAL DEPTH	12"

FIGURE 4 HOT SPOT 1 CHROMIUM FINAL PERFORMANCE SAMPLES			
PREPARED BY	 ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE 11/24/16	DRAWN BY CLM	REVIEWED BY EMK	PROJECT NUMBER 47311.11

NOTES:

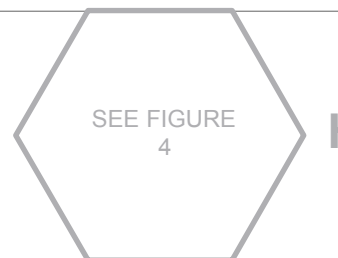
-  HOT SPOT EXCAVATION AREA
-  REMEDIATED AREAS
-  HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG
-  CONCENTRATION IN COMPLIANCE WITH APPLICABLE TEE CLEANUP LEVEL

[HS1]-[1]-[12]

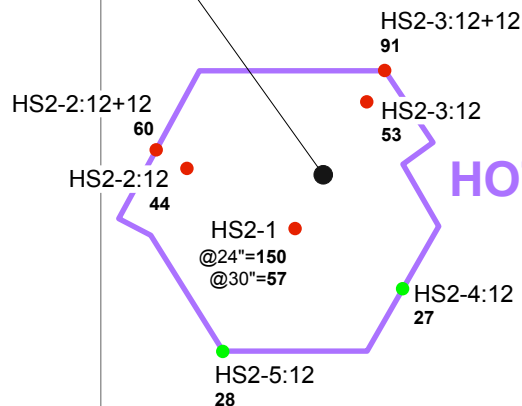
SAMPLE LOCATION
SEQUENTIAL NUMBER

DEPTH IN INCHES

ORIGINAL SAMPLE LOCATION	MVSB3-6:18
COC	CHROMIUM
REMOVAL DEPTH	30"



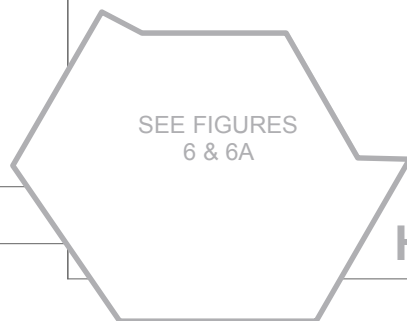
HOT SPOT 1



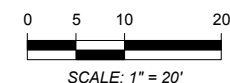
HOT SPOT 2

COOLER

COOLER



HOT SPOT 3



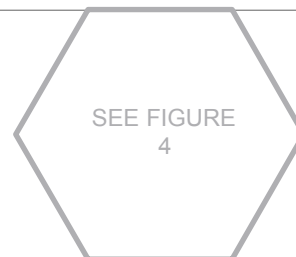
METER BUILDING

NOTES:			
	HOT SPOT EXCAVATION AREA	[HS2]-[1]:[12]:[+12]	
	REMIEDIATED AREAS	SAMPLE LOCATION	HORIZONTAL DISTANCE OF REDIG, RELATIVE TO ORIGINAL SIDEWALL, IN INCHES
	HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG	SEQUENTIAL NUMBER	DEPTH IN INCHES
GREEN	CONCENTRATION IN COMPLIANCE WITH APPLICABLE TEE CLEANUP LEVEL		
RED	CONCENTRATION EXCEEDS THE TEE ECOLOGICAL INDICATOR CONCENTRATIONS (TABLE 749-3)		

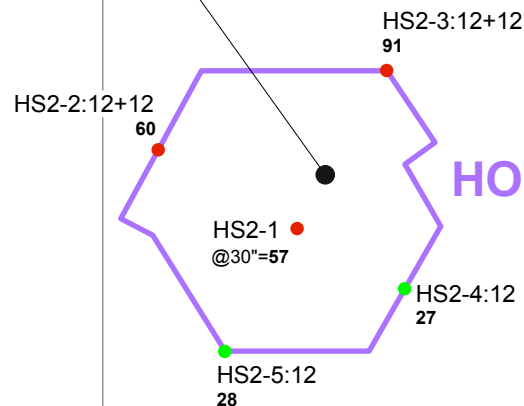
FIGURE 5
HOT SPOT 2
CHROMIUM PERFORMANCE SAMPLES

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/4/16	CLM	EMK	47311.11

ORIGINAL SAMPLE LOCATION	MVSB3-6:18
COC	CHROMIUM
REMOVAL DEPTH	30"



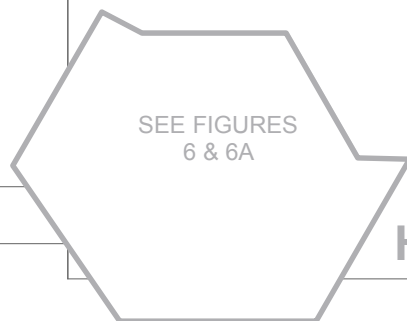
HOT SPOT 1



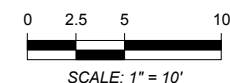
HOT SPOT 2

COOLER

COOLER



HOT SPOT 3

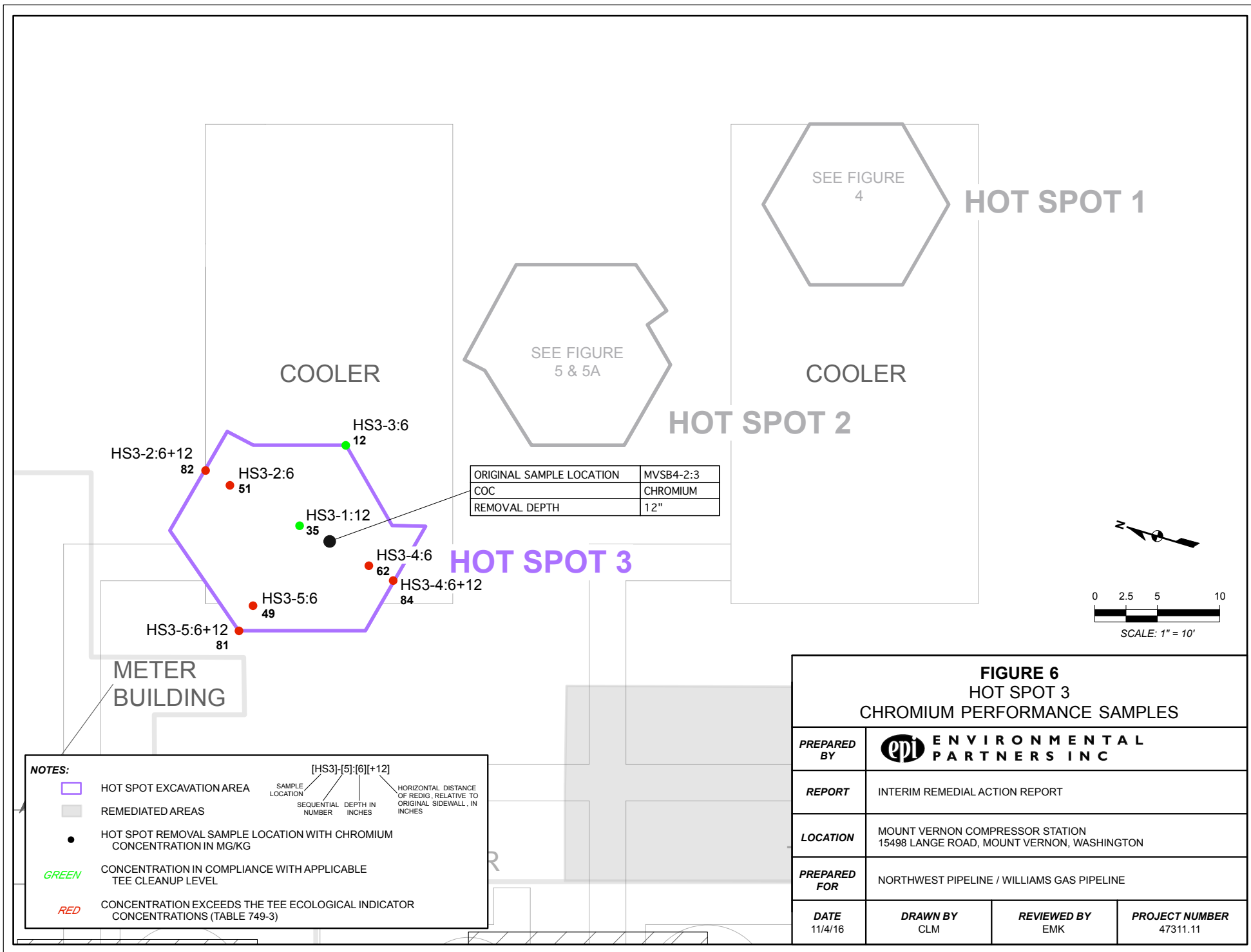


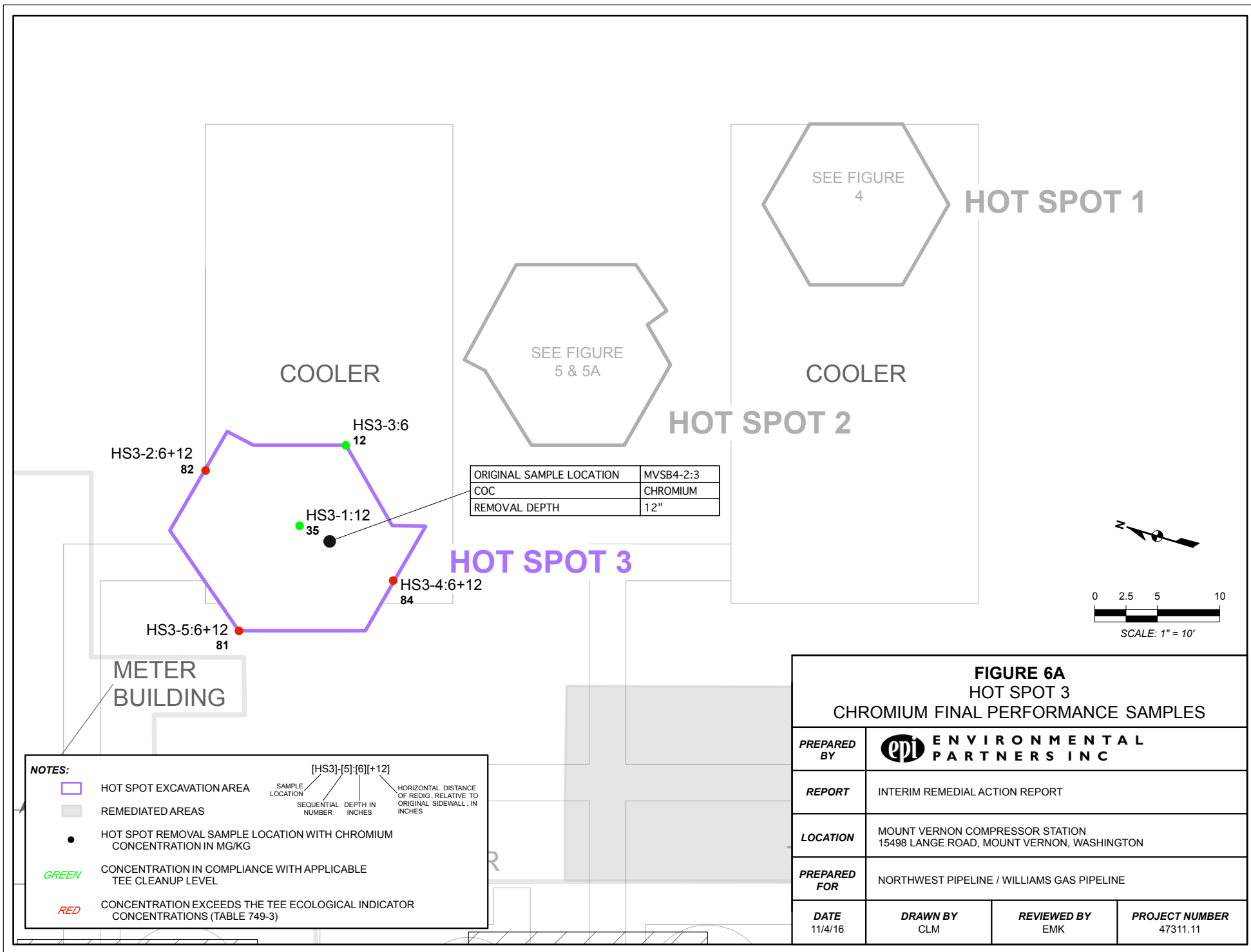
METER BUILDING

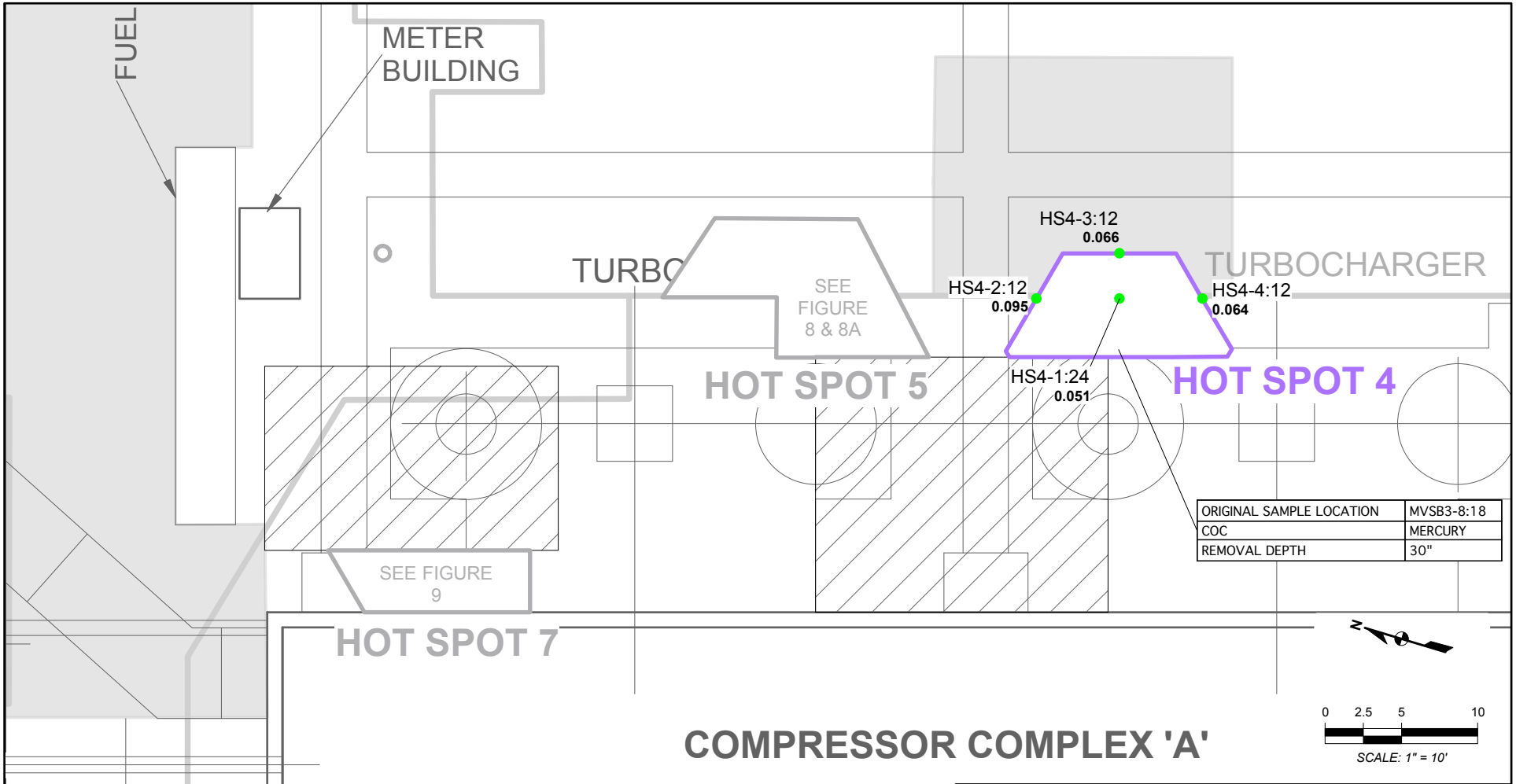
NOTES:			
	HOT SPOT EXCAVATION AREA	SAMPLE LOCATION SEQUENTIAL NUMBER DEPTH IN INCHES HORIZONTAL DISTANCE OF REDIG, RELATIVE TO ORIGINAL SIDEWALL, IN INCHES	
	REMEDIATED AREAS		
	HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG		
	CONCENTRATION IN COMPLIANCE WITH APPLICABLE TEE CLEANUP LEVEL		
	CONCENTRATION EXCEEDS THE TEE ECOLOGICAL INDICATOR CONCENTRATIONS (TABLE 749-3)		

FIGURE 5A
HOT SPOT 2
CHROMIUM FINAL PERFORMANCE SAMPLES

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE 11/4/16	DRAWN BY CLM	REVIEWED BY EMK	PROJECT NUMBER 47311.11







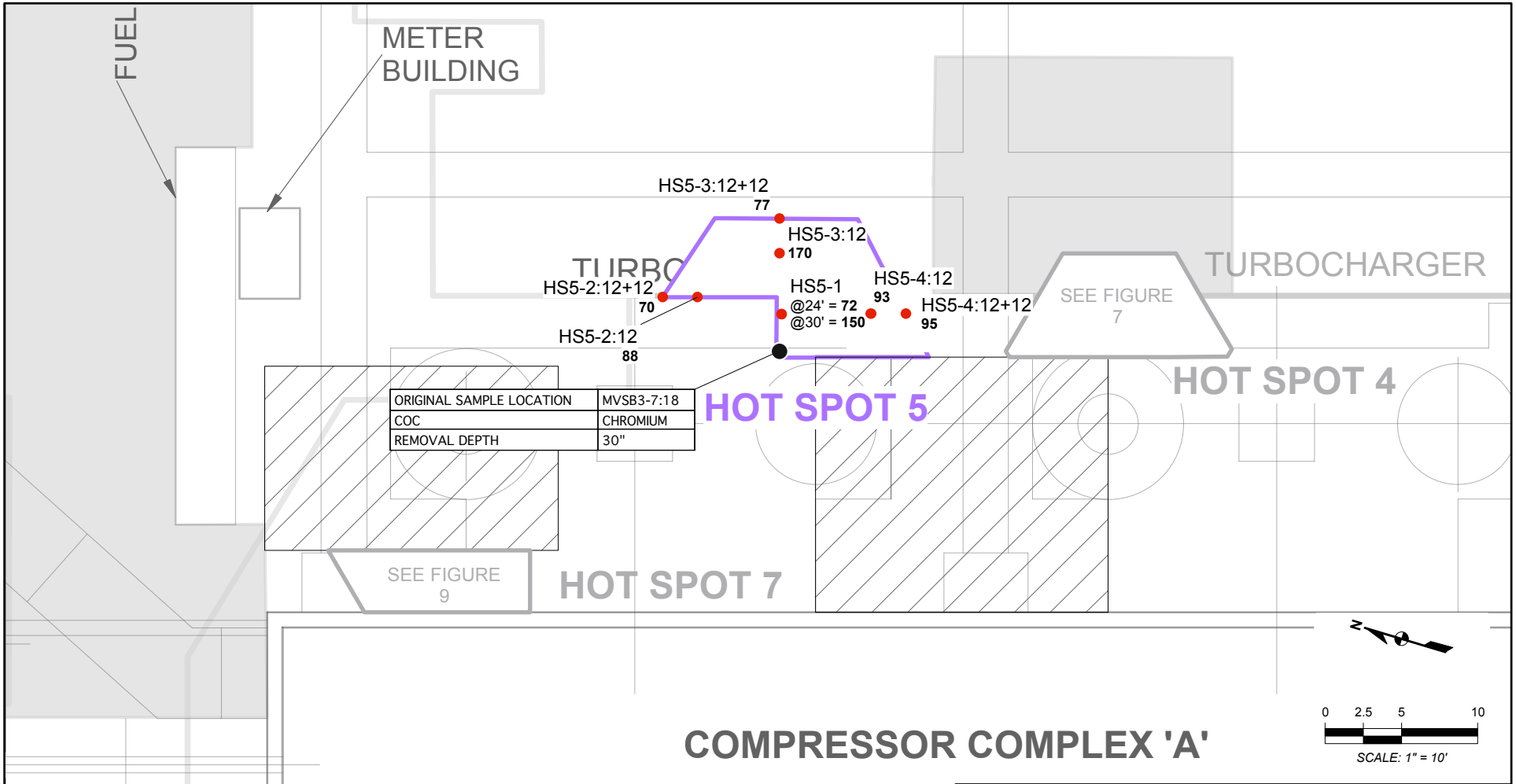
NOTES:

- HOT SPOT EXCAVATION AREA
- REMEDIATED AREAS
- HOT SPOT REMOVAL SAMPLE LOCATION WITH MERCURY CONCENTRATION IN MG/KG
- CONCENTRATION IN COMPLIANCE WITH APPLICABLE TEE CLEANUP LEVEL

[HS4]-[1]:[24]

SAMPLE LOCATION SEQUENTIAL NUMBER DEPTH IN INCHES

FIGURE 7 HOT SPOT 4 MERCURY FINAL PERFORMANCE SAMPLES			
PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE 11/4/16	DRAWN BY CLM	REVIEWED BY EMK	PROJECT NUMBER 47311.11



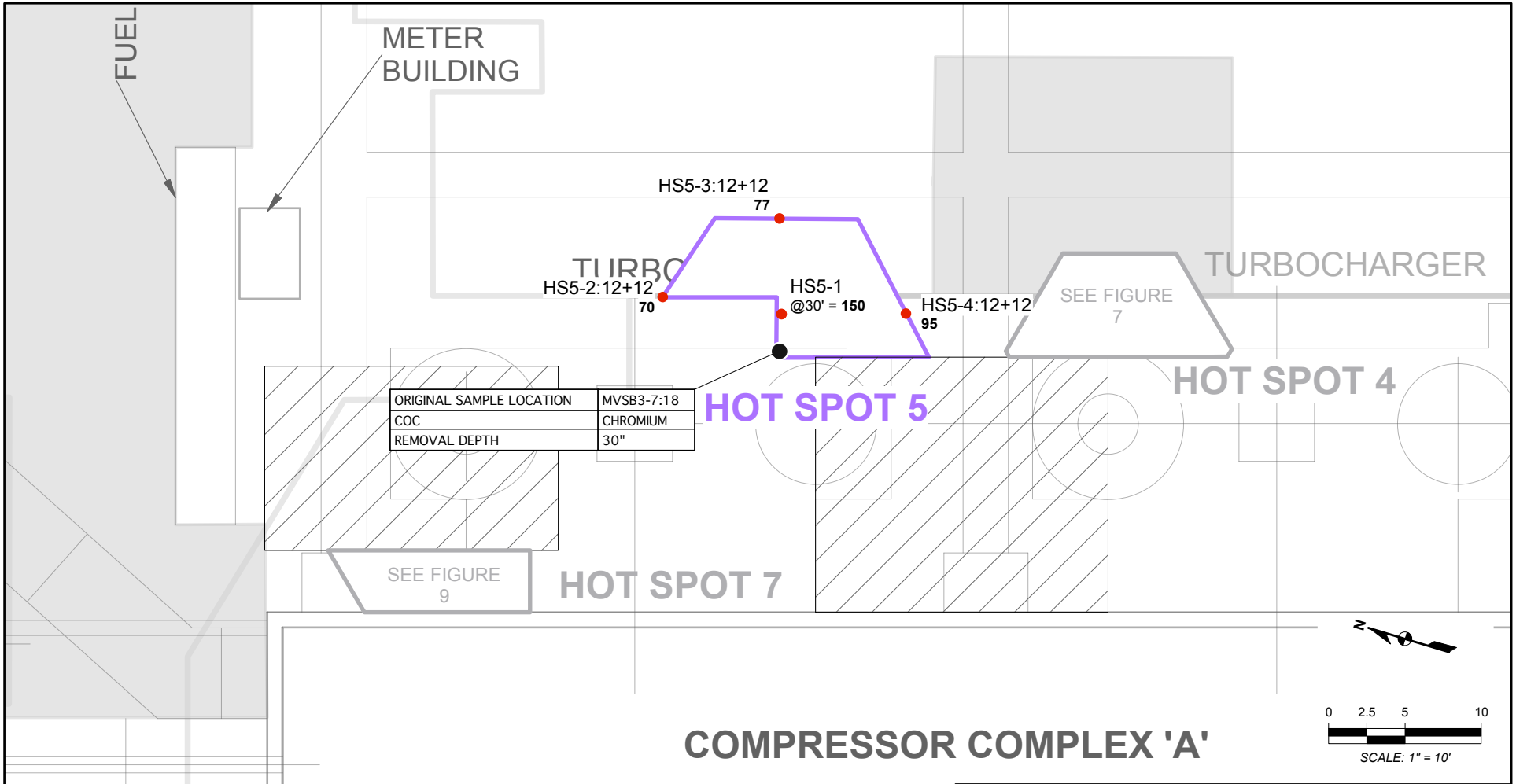
NOTES:

- HOT SPOT EXCAVATION AREA
- REMEDIATED AREAS
- HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG
- RED CONCENTRATION EXCEEDS THE TEE ECOLOGICAL INDICATOR CONCENTRATIONS (TABLE 749-3)

[HS5]-[2]-[12]-[+12]

SAMPLE LOCATION
SEQUENTIAL NUMBER
DEPTH IN INCHES
HORIZONTAL DISTANCE OF REDIG, RELATIVE TO ORIGINAL SIDEWALL, IN INCHES

FIGURE 8 HOT SPOT 5 CHROMIUM PERFORMANCE SAMPLES			
PREPARED BY	 ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE 11/4/16	DRAWN BY CLM	REVIEWED BY EMK	PROJECT NUMBER 47311.11



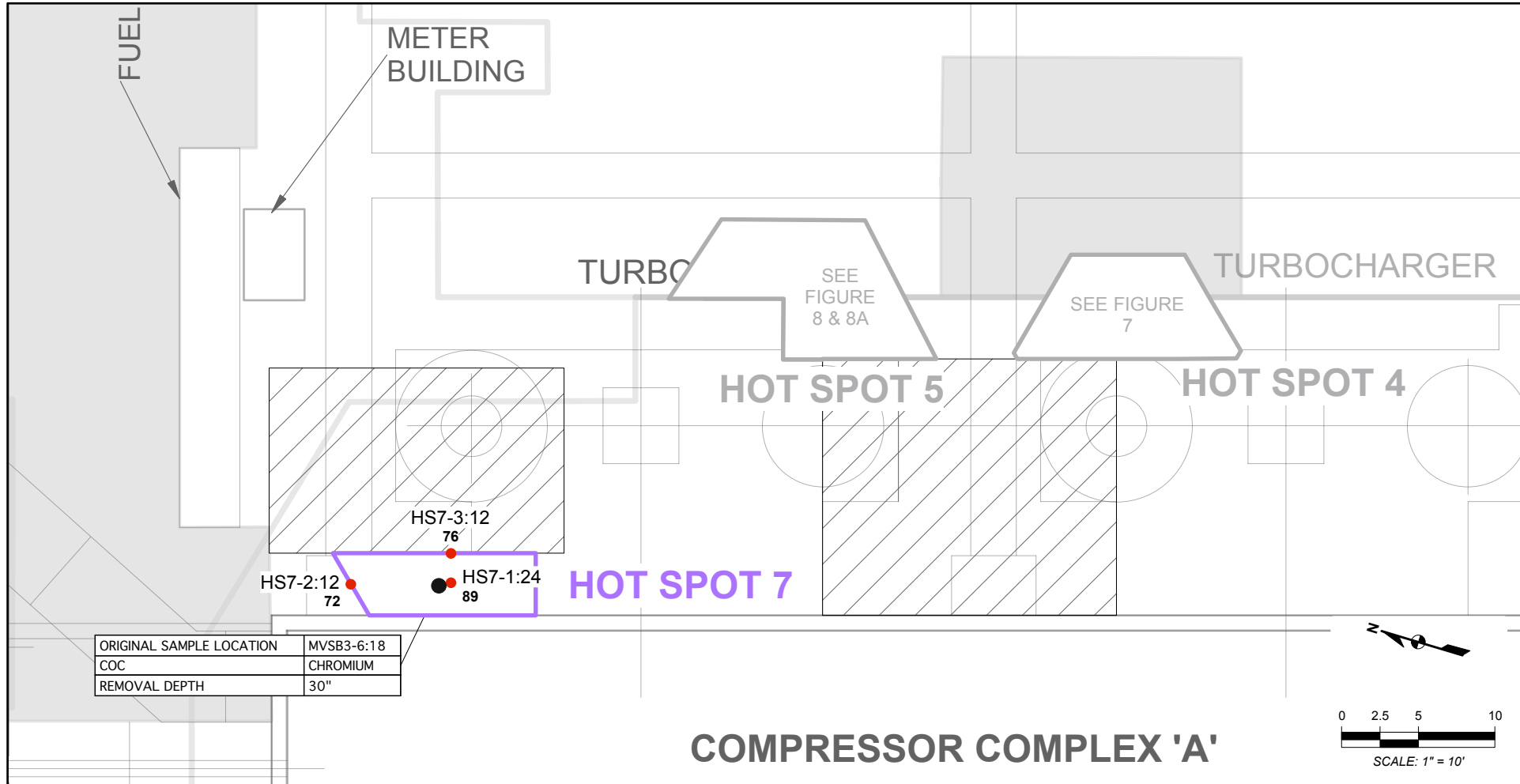
NOTES:

- HOT SPOT EXCAVATION AREA
- REMEDIATED AREAS
- HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG
- RED CONCENTRATION EXCEEDS THE TEE ECOLOGICAL INDICATOR CONCENTRATIONS (TABLE 749-3)

[HS5]-[2]-[12]-[+12]

SAMPLE LOCATION
SEQUENTIAL NUMBER
DEPTH IN INCHES
HORIZONTAL DISTANCE OF REDIG, RELATIVE TO ORIGINAL SIDEWALL, IN INCHES

FIGURE 8A HOT SPOT 5 CHROMIUM FINAL PERFORMANCE SAMPLES			
PREPARED BY	 ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/4/16	CLM	EMK	47311.11



COMPRESSOR COMPLEX 'A'

FIGURE 9 HOT SPOT 7 CHROMIUM FINAL PERFORMANCE SAMPLES			
PREPARED BY	 ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/4/16	CLM	EMK	47311.11

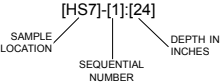
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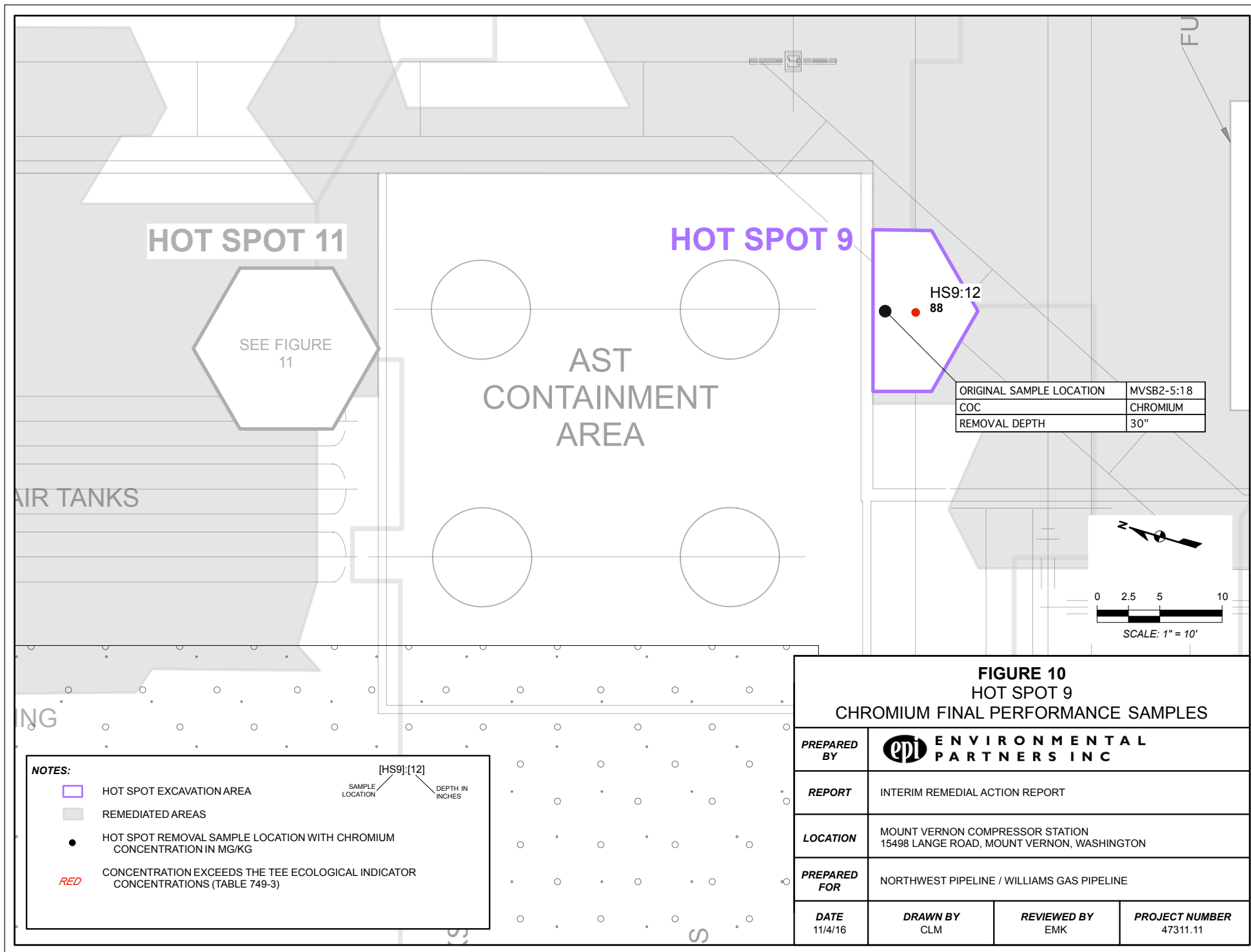
 HOT SPOT EXCAVATION AREA

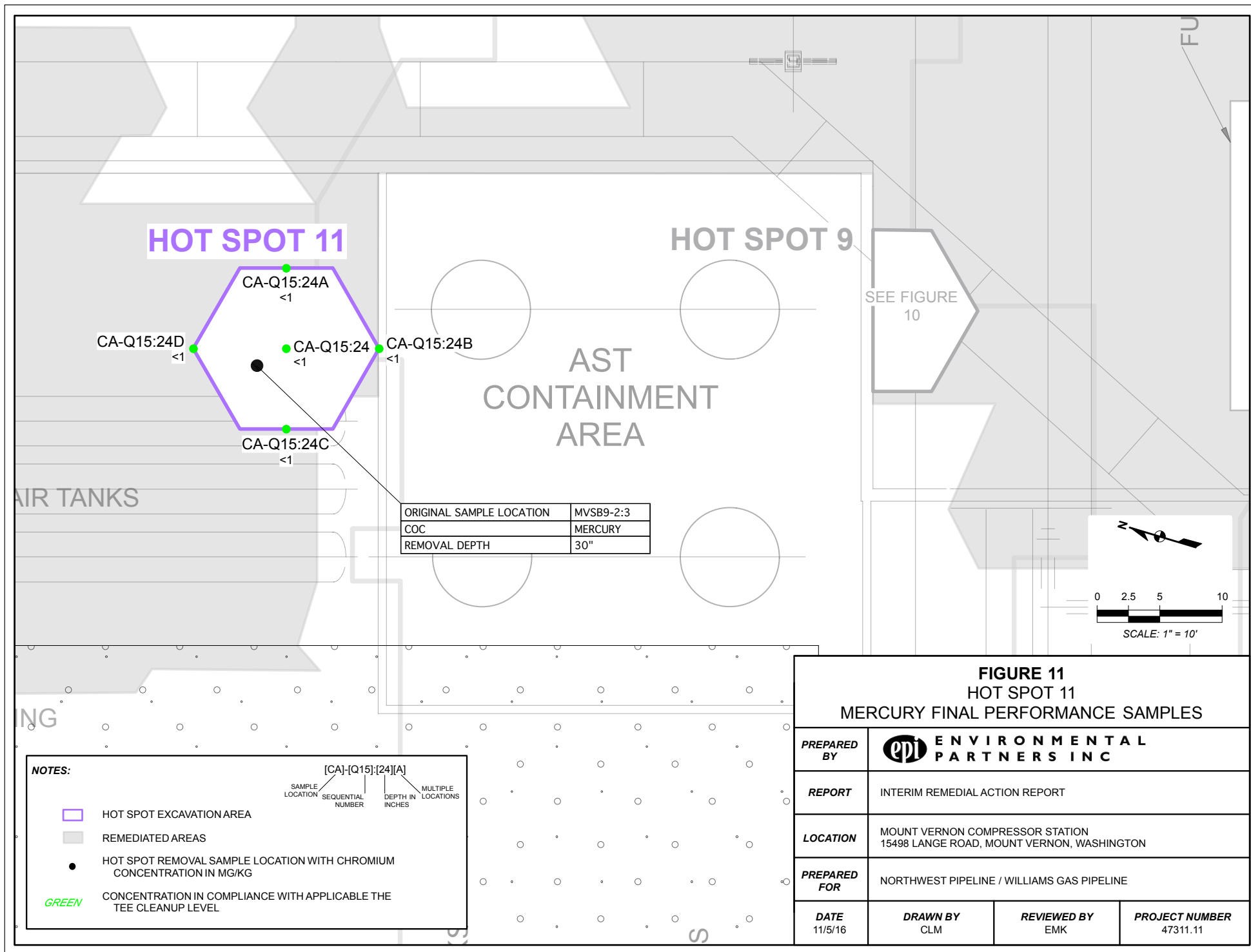
 REMEDIATED AREAS

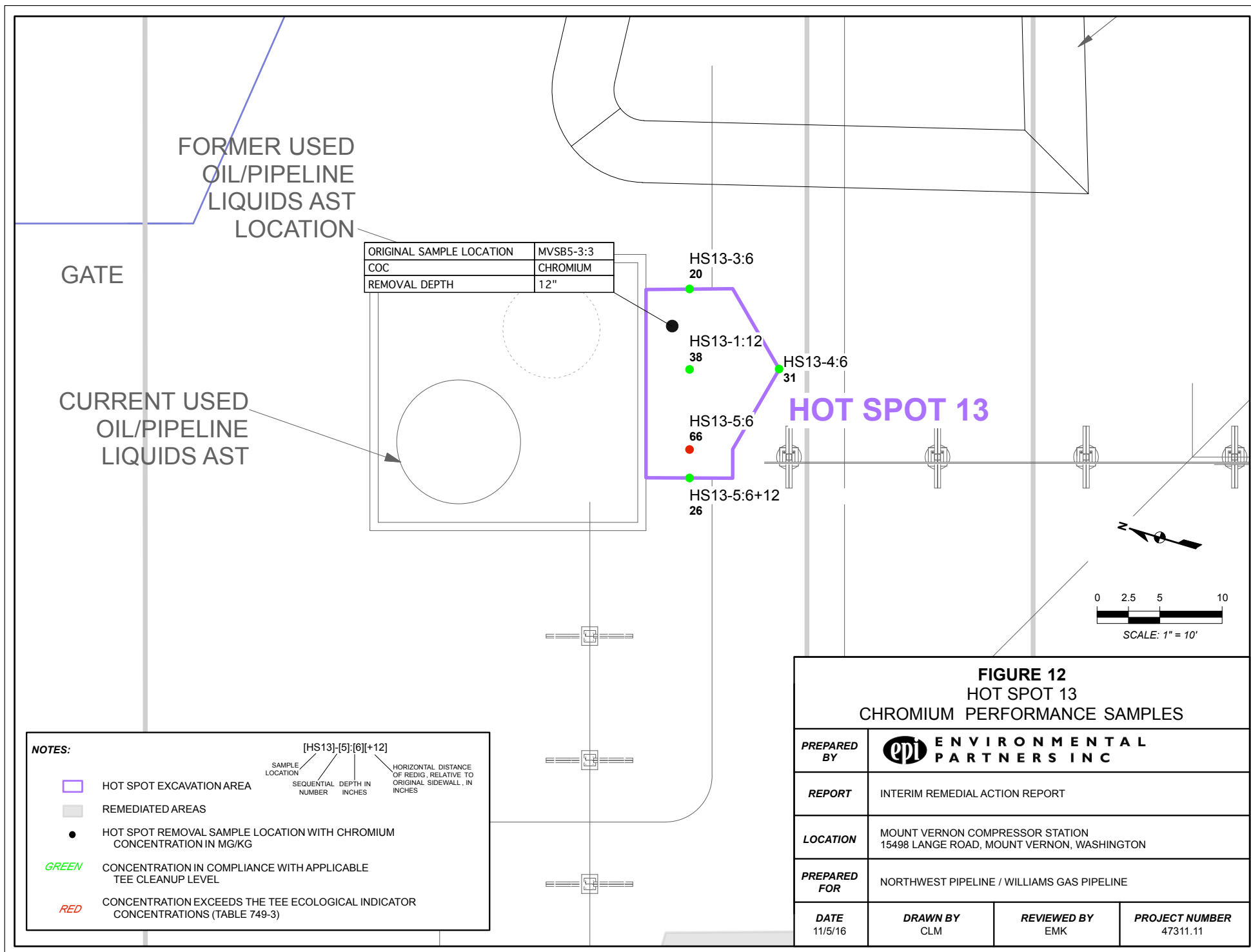
 HOT SPOT REMOVAL SAMPLE LOCATION WITH CHROMIUM CONCENTRATION IN MG/KG

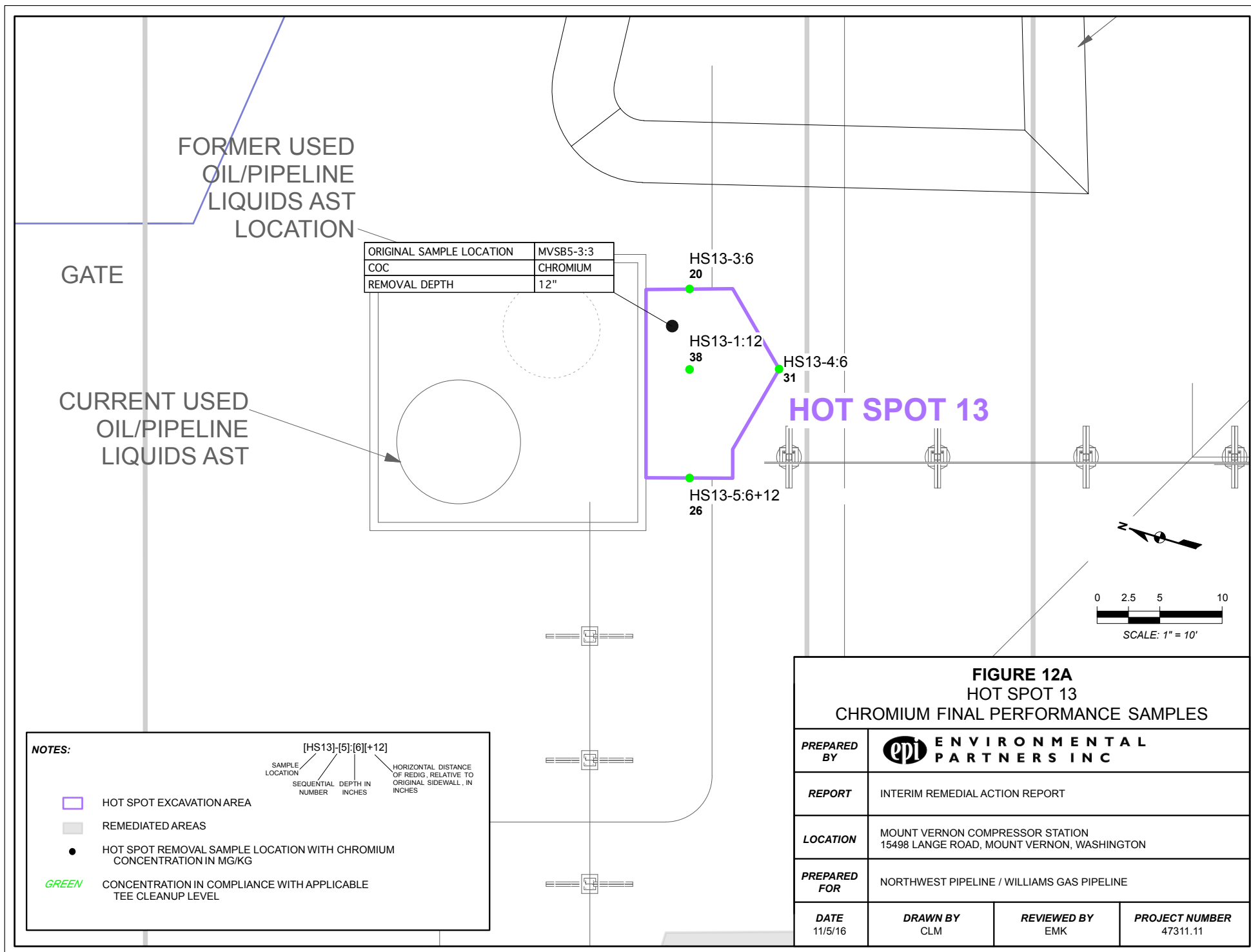
 CONCENTRATION IN COMPLIANCE WITH APPLICABLE TEE CLEANUP LEVEL











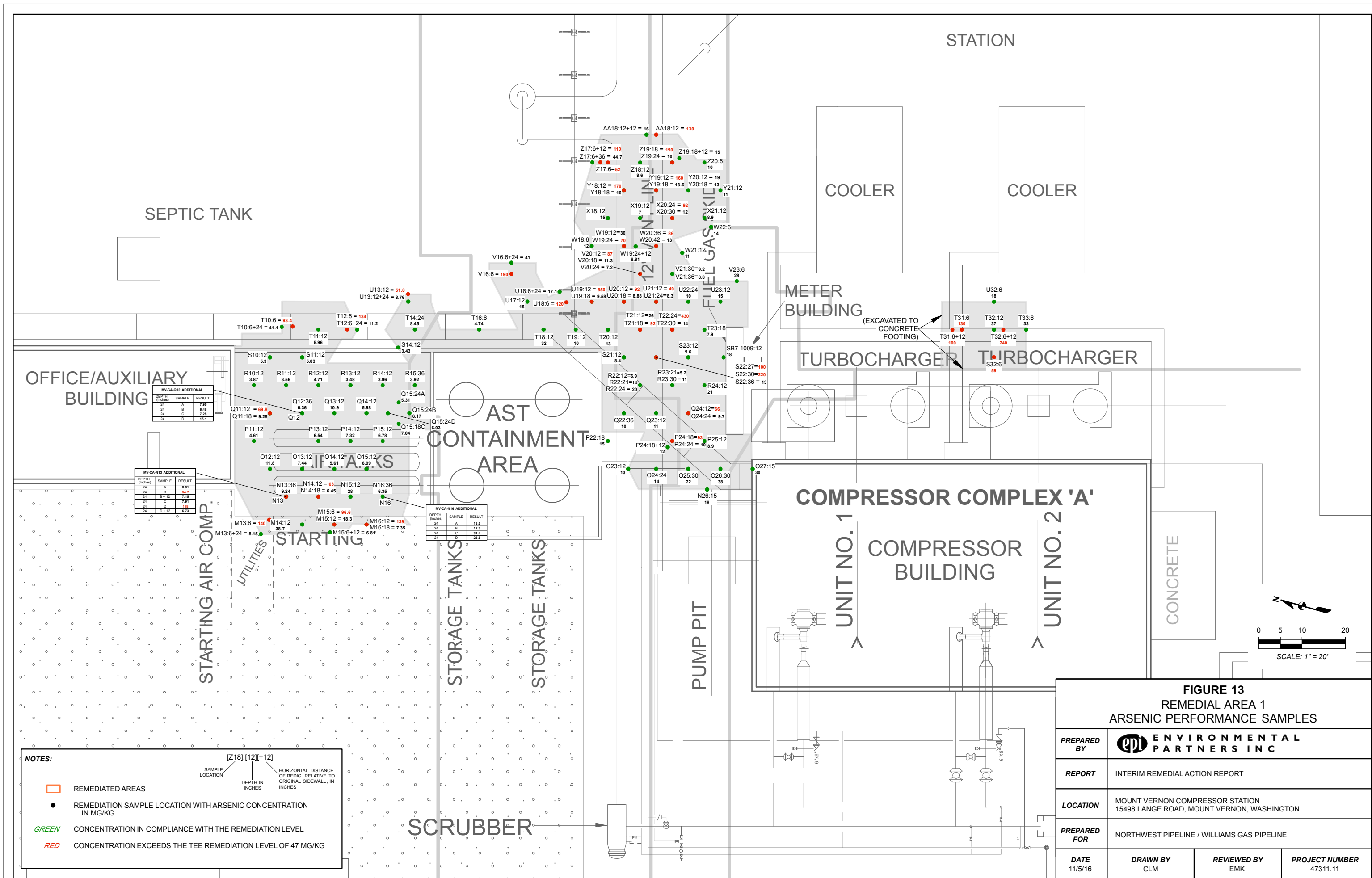
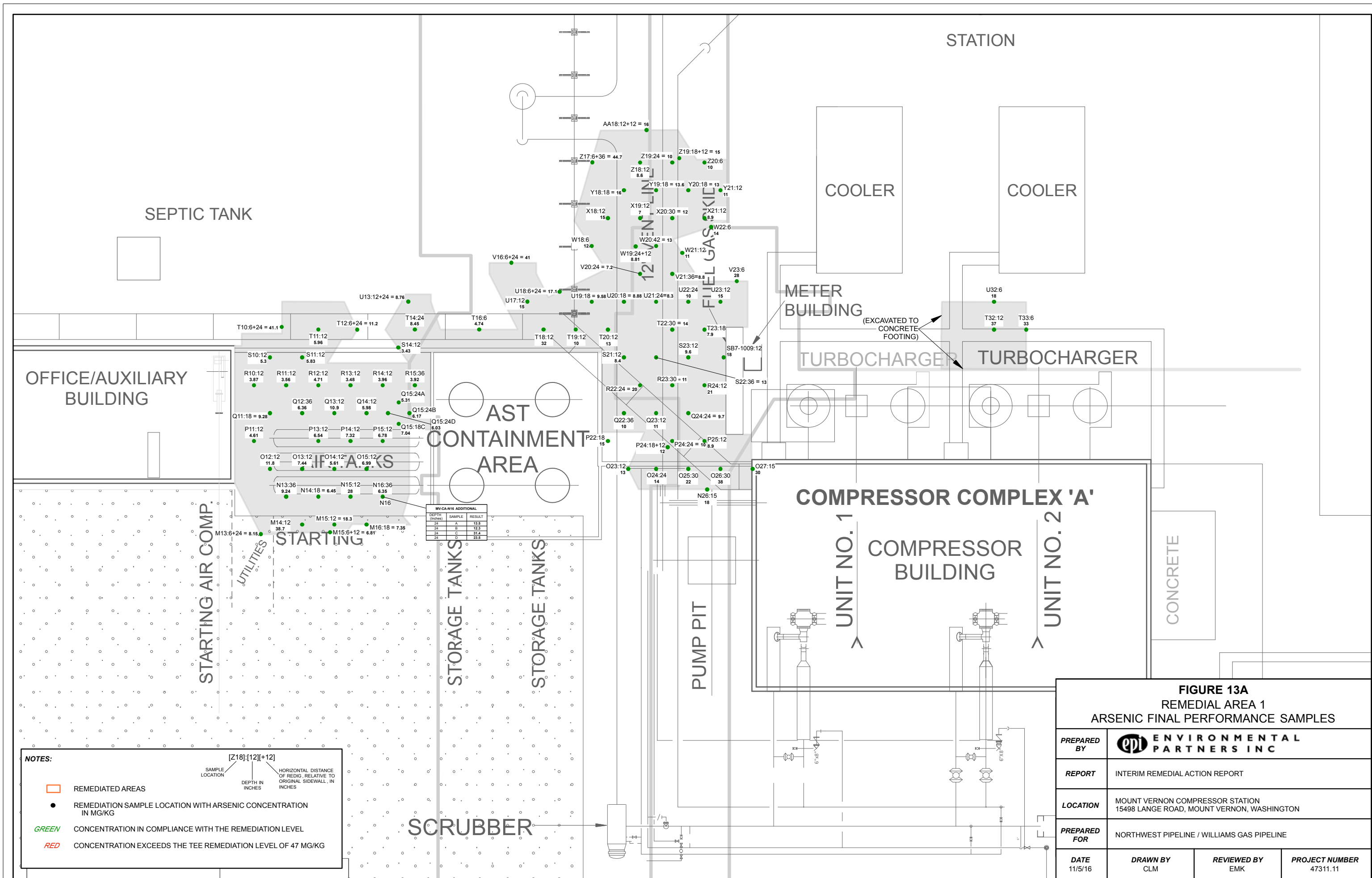
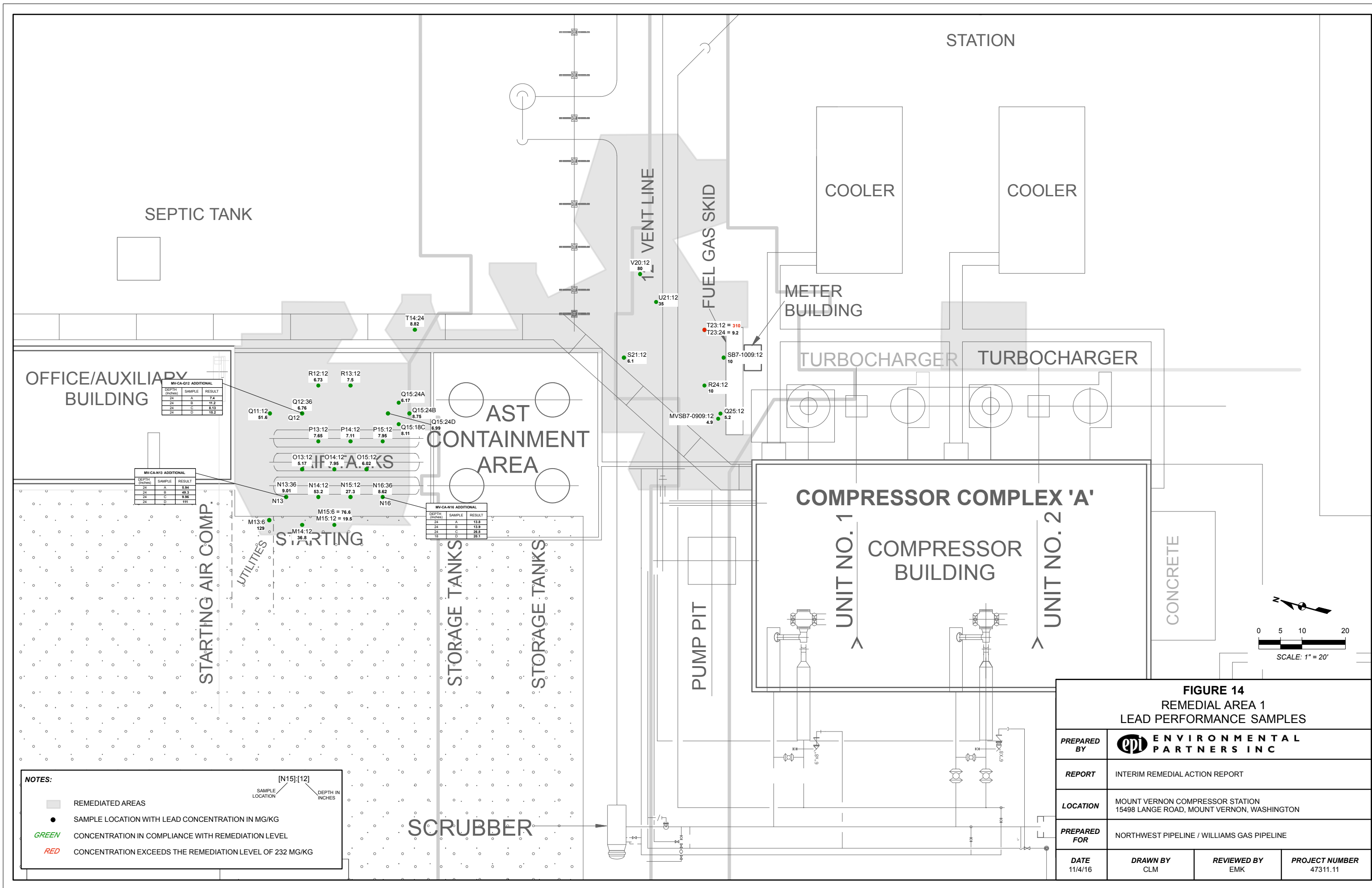


FIGURE 13			
REMEDIAL AREA 1			
ARSENIC PERFORMANCE SAMPLES			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/5/16	CLM	EMK	47311.11





NOTES:

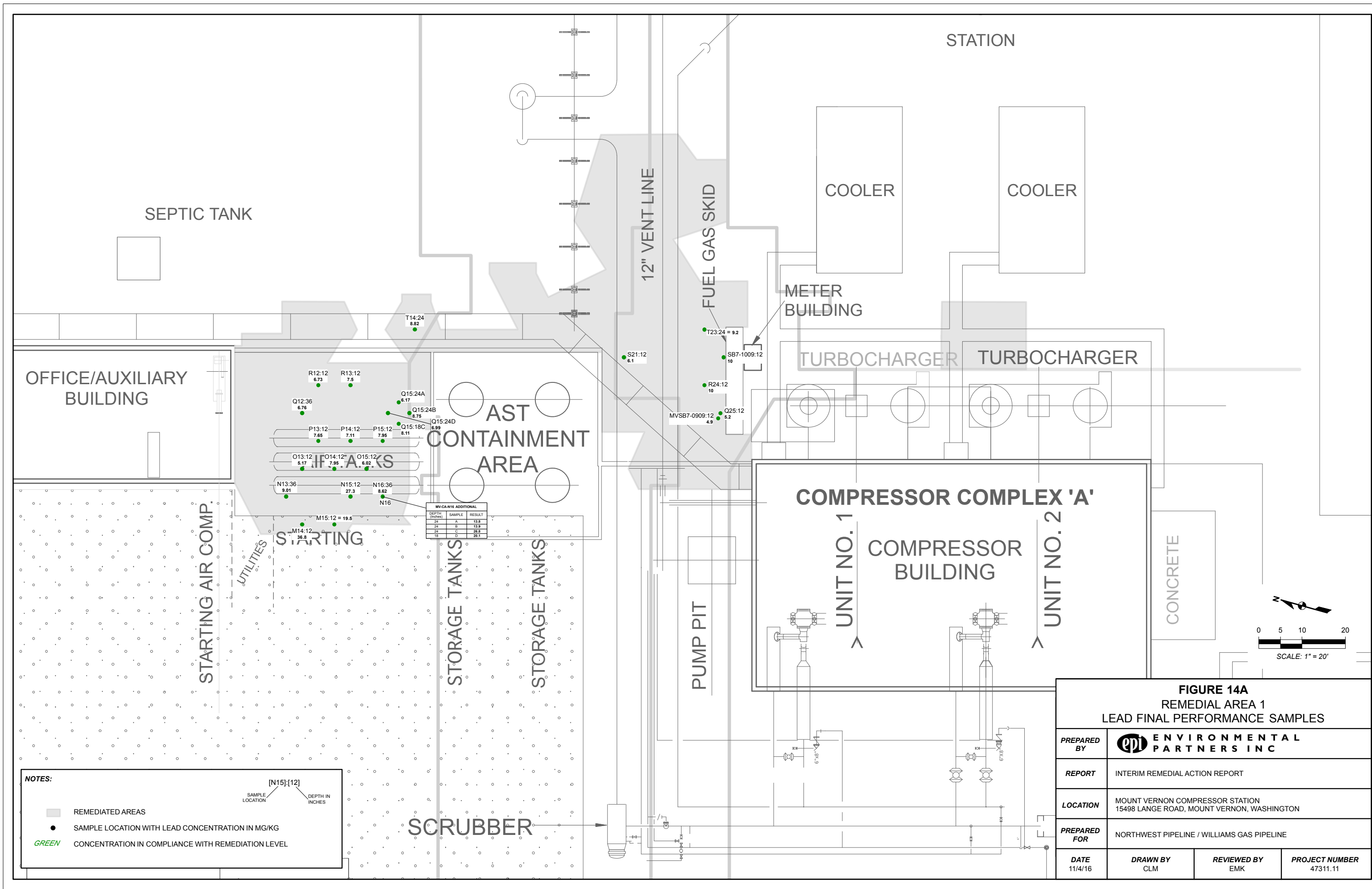
- REMIEDIATED AREAS
- SAMPLE LOCATION WITH LEAD CONCENTRATION IN MG/KG
- GREEN CONCENTRATION IN COMPLIANCE WITH REMEDIATION LEVEL
- RED CONCENTRATION EXCEEDS THE REMEDIATION LEVEL OF 232 MG/KG

[N15]:[12]

SAMPLE LOCATION

DEPTH IN INCHES

FIGURE 14 REMEDIAL AREA 1 LEAD PERFORMANCE SAMPLES			
PREPARED BY	EPI ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/4/16	CLM	EMK	47311.11



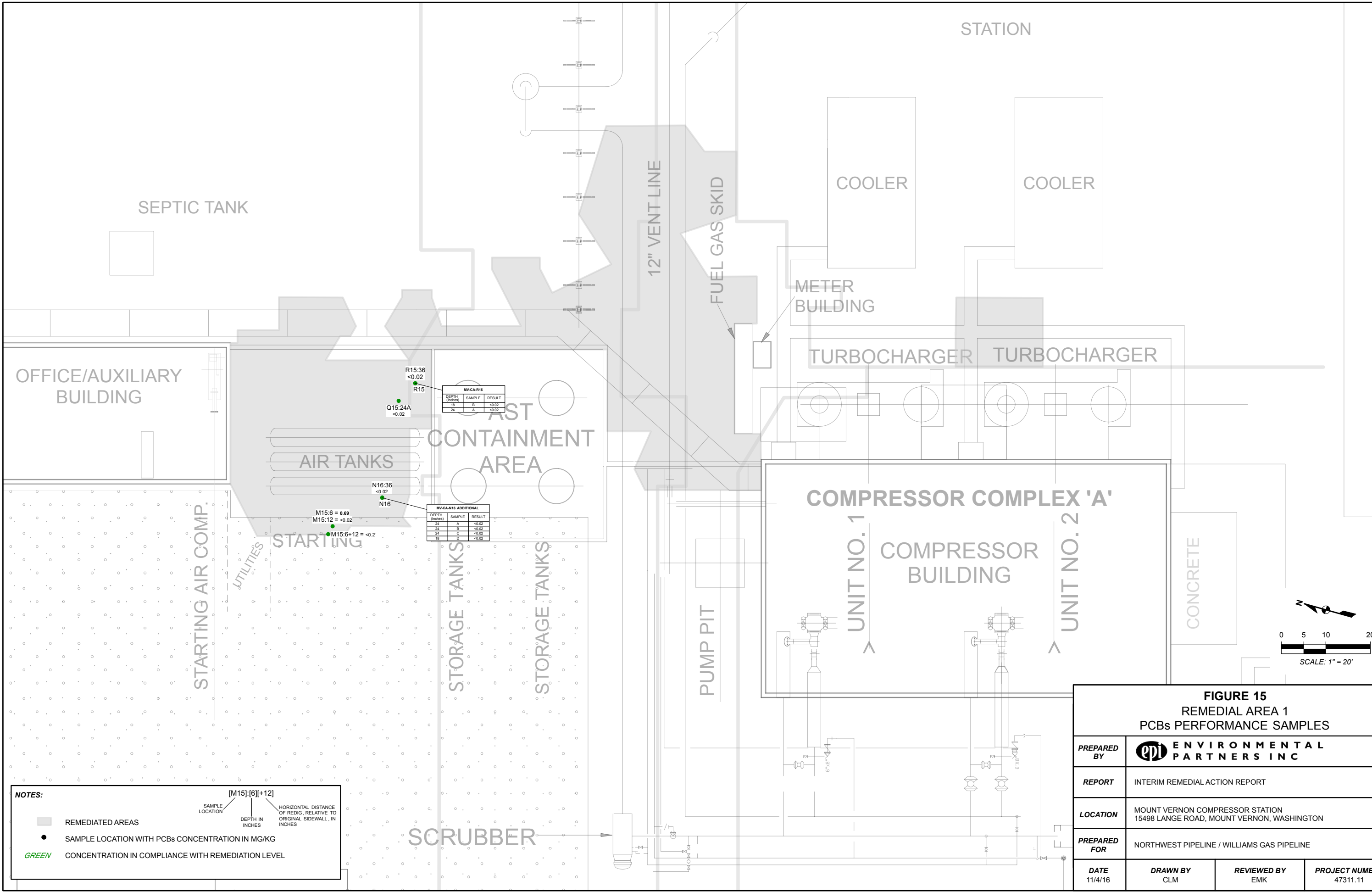


FIGURE 15 REMEDIAL AREA 1 PCBs PERFORMANCE SAMPLES			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM REMEDIAL ACTION REPORT		
LOCATION	MOUNT VERNON COMPRESSOR STATION 15498 LANGE ROAD, MOUNT VERNON, WASHINGTON		
PREPARED FOR	NORTHWEST PIPELINE / WILLIAMS GAS PIPELINE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
11/4/16	CLM	EMK	47311.11

Attachment A
Table MVCS-13 from the RI-CAP

Table MVCS-13
Summary of Remedial Goals and Methods for Remedial Areas
Remedial Investigation and Cleanup Action Plan
Mount Vernon Compressor Station
15498 Lange Road, Mount Vernon, Washington

Remedial Area	AOPCs	Remedial Method	Remedial Goals/Rationale
1	AOPC 2 – Lube Oil and Glycol AST Containment Area AOPC 3 – Compressor Building A AOPC 4 – Compressor Complex A Glycol Coolers AOPC 7 – Former Fuel Gas Meter Building AOPC 9 – Startup Air Tanks	Excavation and Off-site Disposal and Institutional Controls (Deed Restriction)	Remedial Area 1 consists of arsenic, cadmium, lead, and PCB impacts to soil. Assessment is complete in this area and all impacts to soil are horizontally and vertically delineated; no data gaps exist. Remedial Area 1 contains arsenic impacts at concentrations that exceed the REL of 47 mg/kg. The arsenic impacts exceeding the REL will be addressed by direct excavation with off-site disposal followed by confirmational soil sampling using the REL of 47 mg/kg as a basis of performance. At the completion of remedial actions, with the exception of the soil-to-ground water pathway of concern, arsenic impacts in this Remedial Area will be protective of all exposure pathways for the current land use. Arsenic impacts to ground water at the subject property are fully delineated and do not extend off-site. Ground water impacts will be addressed through MNA and institutional controls. Remaining arsenic impacts will not be protective for unrestricted land uses. Therefore, a deed restriction will be used to address the arsenic impacts in the event of a future land-use change. The cadmium impacts are characterized as low concentration that exceed the selected CUL of 2 mg/kg, which is based upon the soil-to-ground water exposure pathway. Ground water was assessed for cadmium impacts and none were detected. Therefore, the cadmium impacts in this Remedial Area are protective of all exposure pathways for the current land use, however, are not protective for unrestricted land uses. Therefore, a deed restriction will be used to address the cadmium impacts in the event of a future land-use change. The lead impacted soils exceed the CUL of 130 mg/kg, which is based on protection of plants and the REL of 232 mg/kg, which is based on proteciton of soil biota. As presented in the CSM in Section 7.0, active weed suppression is practiced within the plant, therefore the protection of plants pathway is not complete and removal of these soils is not required. The lead impacts exceeding the REL will be addressed by direct excavation with off-site disposal followed by confirmational soil sampling using the REL of 232 mg/kg as a basis of performance. At the completion of remedial actions, with the exception of protection of plants, lead impacts in this Remedial Area will be protective of all exposure pathways for the current land use. Therefore, in the event of a future land-use change, a deed restriction will be used to address the lead impacts not addressed by excavation. Remedial Area 1 contains PCB impacts at concentrations that exceed the REL of 25 mg/kg. The PCB impacts exceeding the REL will be addressed by direct excavation with off-site disposal followed by confirmational soil sampling using the REL of 25 mg/kg as a basis of performance. At the completion of remedial actions, PCB impacts in this Remedial Area will be protective of all exposure pathways for the current land use. However, remaining PCB impacts will not be protective for unrestricted land uses. Therefore, in the event of a future land-use change, a deed restriction will be used to address the PCB impact not addressed by excavation. Figure MVCS-15 indicates the cumulative area planned for excavation in red.
2	AOPC 3 – Compressor Building A (western side)	Institutional Controls (Deed Restriction)	Remedial Area 2 contains low-concentration arsenic and cadmium impacts to soil. Although the impacts exceed the selected CUL of 20 mg/kg for arsenic and 2 mg/kg for cadmium, the CULs are based upon the soil-to-ground water exposure pathway. Assessment is complete in this area and the arsenic and cadmium impacts are horizontally and vertically delineated; no data gaps exist. Ground water has been assessed at the Mt. Vernon facility and neither dissolved arsenic nor dissolved cadmium were detected in ground water samples collected. in this area of the facility. Since ground water is not impacted in this area, the soil-to-ground water exposure pathway is not complete and removal of these soils is not required. Soils in this Remedial Area are protective of all exposure pathways for the current land use, however, are not protective for unrestricted land uses. Therefore, a deed restriction will be implemented in the event of a future land-use change.

Attachment B
Copies of Original Laboratory Reports



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Est. 1970

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724169

Samples Received: 09/26/14

Client Project: MT VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV7-T32:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724169-01

Site ID : MV7-T32

Project # : MT VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.4	0.100	91.4		%	2540 G-2	10/01/14
Arsenic	34.	2.0	37.	2.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV7-T31:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724169-02

Site ID : MV7-T32

Project # : MT VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.0	0.100	87.0		%	2540 G-2	10/01/14
Arsenic	110	2.0	130	2.3	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV7-T33:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724169-03

Site ID : MV7-T32

Project # : MT VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.7	0.100	91.7		%	2540 G-2	10/01/14
Arsenic	30.	2.0	33.	2.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV7-S32:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724169-04

Site ID : MV7-T32

Project # : MT VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.0	0.100	90.0		%	2540 G-2	10/01/14
Arsenic	53.	2.0	59.	2.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV7-U32:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724169-05

Site ID : MV7-T32

Project # : MT VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.1	0.100	92.1		%	2540 G-2	10/01/14
Arsenic	17.	2.0	18.	2.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 10:51 Printed: 10/01/14 12:12

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by

K120



ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS City/State Collected: Mt. Vernon
Phone: 713-805-2994 Client Project #: Mt. Vernon ESC Key: PORTNOYENV-WAHG
FAX: 832-295-6404
Collected by: Alan Hopkins Site/Facility ID#: MV7-T32 P.O.#:

Collected by (signature):

Packed on Ice N Y

Rush? (Lab MUST Be Notified)

Same Day 200%
Next Day 100%
Two Day 50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Arsenic

HOLD

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV7-T32:12	Grab	SS		9-25-14		1	X			6724169-01
MV7-T31:6	Grab	SS		9-25-14		1	X			02
MV7-T33:6	Grab	SS		9-25-14		1	X			03
MV7-S32:6	Grab	SS		9-25-14		1	X			04
MV7-U32:6	Grab	SS		9-25-14		1	X			05
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Flow Other

Remarks:

Relinquished by: (Signature)	Date: 9-25-14	Time: 16:30	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 5
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724172

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

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Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS1-1:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724172-01

Site ID : HS1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	81.7	0.100	81.7		%	2540 G-2	10/01/14
Chromium	23.	1.0	28.	1.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724172-02

Sample ID : MV-HS1-2:6

Site ID : HS1

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.2	0.100	87.2		%	2540 G-2	10/01/14
Chromium	18.	1.0	21.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724172-03

Sample ID : MV-HS1-3:6

Site ID : HS1

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	96.2	0.100	96.2		%	2540 G-2	10/01/14
Chromium	7.9	1.0	8.2	1.0	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS1-4:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724172-04

Site ID : HS1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.4	0.100	75.4		%	2540 G-2	10/01/14
Chromium	27.	1.0	36.	1.3	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724172-05

Sample ID : MV-HS1-5:6

Site ID : HS1

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.5	0.100	74.5		%	2540 G-2	10/01/14
Chromium	24.	1.0	32.	1.3	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32

Summary of Remarks For Samples Printed
10/01/14 at 13:32:09

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724172-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724172-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724172-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724172-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724172-05 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Prepared by:

K119

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key:
PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ YesFAX? ☒ No ☐ Yes

No.
of
Cnts

Packed on Ice N ☒ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Chromium	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS1-1:12	Grab	SS		9-25-14		1	X			L 724172-01
MV--HS1-2:6	Grab	SS		9-25-14		1	X			02
MV-HS1-3:6	Grab	SS		9-25-14		1	X			03
MV-HS1-4:6	Grab	SS		9-25-14		1	X			04
MV-HS1-5:6	Grab	SS		9-25-14		1	X			05
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date: 9-25-14	Time: 16:30	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) NW
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 5
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724173

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS2-1:24

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724173-01

Site ID : HS2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	85.0	0.100	85.0		%	2540 G-2	10/01/14
Chromium	130	1.0	150	1.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724173-02

Sample ID : MV-HS2-2:12

Site ID : HS2

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	95.6	0.100	95.6		%	2540 G-2	10/01/14
Chromium	42.	1.0	44.	1.0	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724173-03

Sample ID : MV-HS2-3:12

Site ID : HS2

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.5	0.100	94.5		%	2540 G-2	10/01/14
Chromium	50.	1.0	53.	1.0	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS2-4:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724173-04

Site ID : HS2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.1	0.100	89.1		%	2540 G-2	10/01/14
Chromium	24.	1.0	27.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724173-05

Sample ID : MV-HS2-5:12

Site ID : HS2

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.0	0.100	94.0		%	2540 G-2	10/01/14
Chromium	26.	1.0	28.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32

Summary of Remarks For Samples Printed
10/01/14 at 13:32:05

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724173-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724173-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724173-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724173-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724173-05 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM

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Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to: NWPL Team

Email to: ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by: K118

**ENVIRONMENTAL
SCIENCE CORP.**

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Mt. Juliet, TN 37122

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Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS

City/State Collected: Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #: Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS2

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Packed on Ice N ☒ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Chromium	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS2-1:24	Grab	SS		9-25-14		1	X			L 724173-01
MV--HS2-2:12	Grab	SS		9-25-14		1	X			02
MV-HS2-3:12	Grab	SS		9-25-14		1	X			03
MV-HS2-4:12	Grab	SS		9-25-14		1	X			04
MV-HS2-5:12	Grab	SS		9-25-14		1	X			05
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 9-25-14	Time: 1:30	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only) AW
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 5
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724175

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724175-01

Sample ID : MV-HS3-1:12

Site ID : HS3

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.7	0.100	79.7		%	2540 G-2	10/01/14
Chromium	28.	1.0	35.	1.2	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724175-02

Sample ID : MV-HS3-2:6

Site ID : HS3

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	88.2	0.100	88.2		%	2540 G-2	10/01/14
Chromium	45.	1.0	51.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724175-03

Sample ID : MV-HS3-3:6

Site ID : HS3

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.1	0.100	91.1		%	2540 G-2	10/01/14
Chromium	11.	1.0	12.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS3-4:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724175-04

Site ID : HS3

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.1	0.100	87.1		%	2540 G-2	10/01/14
Chromium	54.	1.0	62.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724175-05

Sample ID : MV-HS3-5:6

Site ID : HS3

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.7	0.100	89.7		%	2540 G-2	10/01/14
Chromium	44.	1.0	49.	1.1	mg/kg	6010B	09/30/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:32

Summary of Remarks For Samples Printed
10/01/14 at 13:32:10

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724175-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724175-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724175-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724175-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM
Sample: L724175-05 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

K117

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins
Site/Facility ID#: HS3
P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice N Y

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS3-1:12	Grab	SS		9-25-14		1				L724175-01
MV--HS3-2:6	Grab	SS		9-25-14		1				02
MV-HS3-3:6	Grab	SS		9-25-14		1				03
MV-HS3-4:6	Grab	SS		9-25-14		1				04
MV-HS3-5:6	Grab	SS		9-25-14		1				05
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 9-25-14	Time: 1630	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier	Condition: (lab use only) NW
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 5
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724177

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS
Sample ID : MV-HS13-1:12
Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724177-01

Site ID : HS13

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	85.9	0.100	85.9		%	2540 G-2	10/01/14
Chromium	33.	1.0	38.	1.2	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724177-02

Sample ID : MV-HS13-3:6

Site ID : HS13

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.6	0.100	87.6		%	2540 G-2	10/01/14
Chromium	18.	1.0	20.	1.1	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS13-4:6

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724177-03

Site ID : HS13

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.6	0.100	92.6		%	2540 G-2	10/01/14
Chromium	29.	1.0	31.	1.1	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724177-04

Sample ID : MV-HS13-5:6

Site ID : HS13

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	88.6	0.100	88.6		%	2540 G-2	10/01/14
Chromium	59.	1.0	66.	1.1	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 15:06 Printed: 10/01/14 15:06

Summary of Remarks For Samples Printed
10/01/14 at 15:07:00

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724177-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724177-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724177-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724177-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724178

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724178-01

Sample ID : MV-HS4-1:24

Site ID : HS4

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.9	0.100	87.9		%	2540 G-2	10/01/14
Mercury	0.045	0.020	0.051	0.023	mg/kg	7471	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:31



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724178-02

Sample ID : MV-HS4-2:12

Site ID : HS4

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.5	0.100	92.5		%	2540 G-2	10/01/14
Mercury	0.088	0.020	0.095	0.022	mg/kg	7471	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:31



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

Sample ID : MV-HS4-3:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724178-03

Site ID : HS4

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	96.0	0.100	96.0		%	2540 G-2	10/01/14
Mercury	0.063	0.020	0.066	0.021	mg/kg	7471	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:31



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon CS

ESC Sample # : L724178-04

Sample ID : MV-HS4-4:12

Site ID : HS4

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	88.1	0.100	88.1		%	2540 G-2	10/01/14
Mercury	0.056	0.020	0.064	0.023	mg/kg	7471	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/01/14 13:31 Printed: 10/01/14 13:31

Summary of Remarks For Samples Printed
10/01/14 at 13:31:42

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724178-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31

EDD=WD WA-EIM

Sample: L724178-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31

EDD=WD WA-EIM

Sample: L724178-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31

EDD=WD WA-EIM

Sample: L724178-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 13:31

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to: NWPL Team

Email to: ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

K116

 ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS

City/State Collected: Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #: Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS4

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Packed on Ice ☒ N ☐ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Mercury	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS4-1:24	Grab	SS		9-25-14		1	X			L72Y178-01
MV--HS4-2:12	Grab	SS		9-25-14		1	X			02
MV-HS4-3:12	Grab	SS		9-25-14		1	X			03
MV-HS4-4:12	Grab	SS		9-25-14		1	X			04
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date: 9-25-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only) AW
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 4
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 01, 2014

Report Number: L724180

Samples Received: 09/26/14

Client Project: MT. VERNON

Description: Mt. Vernon

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon

Sample ID : MV-HS5-1:24

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724180-01

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.4	0.100	74.4		%	2540 G-2	10/01/14
Arsenic	4.9	2.0	6.6	2.7	mg/kg	6010B	10/01/14
Chromium	54.	1.0	72.	1.3	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon

Sample ID : MV-HS5-2:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724180-02

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.5	0.100	76.5		%	2540 G-2	10/01/14
Arsenic	40.	2.0	52.	2.6	mg/kg	6010B	10/01/14
Chromium	67.	1.0	88.	1.3	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/01/14 15:06 Printed: 10/01/14 15:06



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon

Sample ID : MV-HS5-3:12

Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724180-03

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.1	0.100	89.1		%	2540 G-2	10/01/14
Arsenic	4.1	2.0	4.6	2.2	mg/kg	6010B	10/01/14
Chromium	150	1.0	170	1.1	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 01, 2014

Date Received : September 26, 2014
Description : Mt. Vernon
Sample ID : MV-HS5-4:12
Collected By : Alan Hopkins
Collection Date : 09/25/14 00:00

ESC Sample # : L724180-04

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.3	0.100	89.3		%	2540 G-2	10/01/14
Arsenic	55.	2.0	62.	2.2	mg/kg	6010B	10/01/14
Chromium	83.	1.0	93.	1.1	mg/kg	6010B	10/01/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/01/14 15:06 Printed: 10/01/14 15:06

Summary of Remarks For Samples Printed
10/01/14 at 15:06:56

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L724180-01 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724180-02 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724180-03 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Sample: L724180-04 Account: PORTENVTX Received: 09/26/14 09:30 Due Date: 10/03/14 00:00 RPT Date: 10/01/14 15:06

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
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Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to: NWPL Team

Email to: ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by: K115

 **ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS

City/State
Collected Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS5

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Chromium

Arsenic

HOLD

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS5-1:24	Grab	SS		9-25-14		1	X	X			L 724180-01
MV--HS5-2:12	Grab	SS		9-25-14		1	X	X			02
MV-HS5-3:12	Grab	SS		9-25-14		1	X	X			03
MV-HS5-4:12	Grab	SS		9-25-14		1	X	X			04
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Flow Other

Remarks:

Relinquished by (Signature)	Date: 9-25-14	Time: 1630	Received by (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only)
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Temp: Lab	Bottles Received: 4
Relinquished by (Signature)	Date:	Time:	Received for lab by (Signature)	Date: 9/26/14	Time: 09:30
				pH Checked:	NCF:



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Est. 1970

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725498

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

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Est. 1970

REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-CA-U23:12

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725498-01

Site ID : RA 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.7	0.100	74.7		%	2540 G-2	10/07/14
Arsenic	11.	2.0	15.	2.7	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-02

Sample ID : MV-CA-V23:6

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.4	0.100	93.4		%	2540 G-2	10/07/14
Arsenic	26.	2.0	28.	2.1	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-03

Sample ID : MV-CA-S23:12

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	86.1	0.100	86.1		%	2540 G-2	10/07/14
Arsenic	8.3	2.0	9.6	2.3	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-CA-Q24:12

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725498-04

Site ID : RA 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	97.2	0.100	97.2		%	2540 G-2	10/07/14
Arsenic	64.	2.0	66.	2.0	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-CA-Y21:12

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725498-05

Site ID : RA 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.2	0.100	82.2		%	2540 G-2	10/05/14
Arsenic	9.3	2.0	11.	2.4	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-06

Sample ID : MV-CA-W22:6

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	77.4	0.100	77.4		%	2540 G-2	10/05/14
Arsenic	11.	2.0	14.	2.6	mg/kg	6010B	10/08/14

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Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-07

Sample ID : MV-CA-Z20:6

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.0	0.100	93.0		%	2540 G-2	10/05/14
Arsenic	9.6	2.0	10.	2.2	mg/kg	6010B	10/08/14

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-08

Sample ID : MV-CA-W21:12

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.0	0.100	76.0		%	2540 G-2	10/05/14
Arsenic	8.5	2.0	11.	2.6	mg/kg	6010B	10/08/14

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-09

Sample ID : MV-CA-T23:18

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.9	0.100	90.9		%	2540 G-2	10/05/14
Arsenic	7.2	2.0	7.9	2.2	mg/kg	6010B	10/08/14

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RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-10

Sample ID : MV-CA-N26:15

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.8	0.100	79.8		%	2540 G-2	10/05/14
Arsenic	14.	2.0	18.	2.5	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-11

Sample ID : MV-CA-023:12

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	78.5	0.100	78.5		%	2540 G-2	10/05/14
Arsenic	10.	2.0	13.	2.5	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-CA-027:15

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725498-12

Site ID : RA 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.5	0.100	90.5		%	2540 G-2	10/05/14
Arsenic	27.	2.0	30.	2.2	mg/kg	6010B	10/08/14

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-13

Sample ID : MV-CA-024:24

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	80.8	0.100	80.8		%	2540 G-2	10/05/14
Arsenic	11.	2.0	14.	2.5	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-14

Sample ID : MV-CA-026:30

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.5	0.100	89.5		%	2540 G-2	10/05/14
Arsenic	34.	2.0	38.	2.2	mg/kg	6010B	10/08/14

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-15

Sample ID : MV-CA-Q22:36

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.0	0.100	75.0		%	2540 G-2	10/07/14
Arsenic	7.6	2.0	10.	2.7	mg/kg	6010B	10/08/14

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Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-CA-Q25:12

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725498-16

Site ID : RA 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.3	0.100	92.3		%	2540 G-2	10/07/14
Lead	4.8	0.50	5.2	0.54	mg/kg	6010B	10/08/14

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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725498-17

Sample ID : MV-CA-T23:12

Site ID : RA 1

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.8	0.100	90.8		%	2540 G-2	10/07/14
Lead	280	0.50	310	0.55	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L725498-01	WG746877	SAMP	Arsenic	R2996061	J3J5

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
10/08/14 at 15:01:54

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725498-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-02 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-03 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-04 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-05 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-06 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-07 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-08 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-09 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-10 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-11 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-12 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-13 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-14 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-15 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-16 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM
Sample: L725498-17 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 15:01
EDD=WD WA-EIM

Remarks:		Date:		Time:		Received by: (Signature)		Samples returned via: ☐ UPS ☒ FedEx ☐ Courier		Condition: ☒ (lab use only)	
Relinquished by: (Signature)		10-2-14		1600							
Relinquished by: (Signature)								Temp: Amb		Bottles Received: 17-202	
Relinquished by: (Signature)								Date: 10/3/14		Time: 0900	
						Received for lab by: (Signature)				pH Checked: NCF:	

NCF:	



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Est. 1970

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Tuesday October 07, 2014

Report Number: L725533

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

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Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 07, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS9-

Collected By : Alan Hopkins
Collection Date : 10/02/14 00:00

ESC Sample # : L725533-01

Site ID : HS9

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.5	0.100	76.5		%	2540 G-2	10/07/14
Chromium	67.	1.0	88.	1.3	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/07/14 15:51 Printed: 10/07/14 15:52

Summary of Remarks For Samples Printed
10/07/14 at 15:52:01

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725533-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/07/14 15:51
EDD=WD WA-EIM

Prepared by:

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FAX (615) 758-5859

H023

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

L 725533-01

Analysis/Container/Preservative

Chromium

Arsenic

HOLD

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Project Description: Mt. Vernon CS

City/State Collected: Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #: Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS9

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ YesFAX? ☒ No ☐ YesNo.
of
Cntrs

Packed on Ice N

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS9-	Grab	SS		10-2-14		1	X				
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

7713 6798 5699

Relinquished by: (Signature)	Date: 10-2-14	Time: 1600	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 1-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/3/14	Time: 0900
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725537

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725537-01

Sample ID : MV-HS13-5:6+12

Site ID : HS13

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.7	0.100	93.7		%	2540 G-2	10/07/14
Chromium	24.	1.0	26.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:37

Summary of Remarks For Samples Printed
10/08/14 at 12:37:40

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725537-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

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H025

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: HS13
P.O.#:

Collected by (signature):



Packed on Ice N (Y)

Rush? (Lab MUST Be Notified)

Same Day. 200%
Next Day. 100%
Two Day 50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Chromium

Arsenic

HOLD

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS13-5:6+12	Grab	SS		9-30-14		1					L 725537-01
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

7713 6798 5699 Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-2-14	Time: 1600	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 1-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/3/14	Time: 0900



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Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725541

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

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Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725541-01

Sample ID : MV-HS2-1:30

Site ID : HS2

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.6	0.100	90.6		%	2540 G-2	10/07/14
Chromium	52.	1.0	57.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725541-02

Sample ID : MV-HS2-12+12

Site ID : HS2

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	96.1	0.100	96.1		%	2540 G-2	10/07/14
Chromium	58.	1.0	60.	1.0	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS2-12+12

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725541-03

Site ID : HS2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.5	0.100	90.5		%	2540 G-2	10/07/14
Chromium	82.	1.0	91.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38

Summary of Remarks For Samples Printed
10/08/14 at 12:38:07

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725541-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Sample: L725541-02 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Sample: L725541-03 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

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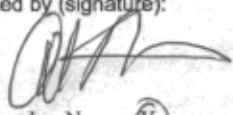
FAX (615) 758-5859

H028

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins
Site/Facility ID#: HS2
P.O.#:

Collected by (signature):



Packed on Ice N ☒

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Chromium

Arsenic

HOLD

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS2-1:30	Grab	SS		9-30-14		1	X				L 7255VI-01
MV--HS2-2:12+12	Grab	SS		9-30-14		1	X				02
MV-HS2-3:12+12	Grab	SS		9-30-14		1	X				03
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 10-2-14	Time: 1600	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 3-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/3/14	Time: 0900
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725544

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS7-1:24

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725544-01

Site ID : HS7

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.9	0.100	89.9		%	2540 G-2	10/07/14
Chromium	80.	1.0	89.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
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October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS7-2:12

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725544-02

Site ID : HS7

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	88.9	0.100	88.9		%	2540 G-2	10/07/14
Chromium	64.	1.0	72.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725544-03

Sample ID : MV-HS7-3:12

Site ID : HS7

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.3	0.100	93.3		%	2540 G-2	10/07/14
Chromium	71.	1.0	76.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/08/14 12:37 Printed: 10/08/14 12:38

Summary of Remarks For Samples Printed
10/08/14 at 12:38:06

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725544-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Sample: L725544-02 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Sample: L725544-03 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/08/14 12:37

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Project Description: Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key:
PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: HS7

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Packed on Ice ☒

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS7-1:24	Grab	SS		9-30-14		1	X				17255V-01
MV-HS7-2:12	Grab	SS		9-30-14		1	X				2
MV-HS7-3:12	Grab	SS		9-30-14		1	X				3
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-2-14	Time: 1600	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 3-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/3/14	Time: 0900
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725546

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS
Sample ID : MV7-T31:6+12
Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725546-01

Site ID : T32

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.0	0.100	93.0		%	2540 G-2	10/07/14
Arsenic	96.	2.0	100	2.2	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS
Sample ID : MV7-T32:6+12
Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725546-02

Site ID : T32

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.2	0.100	92.2		%	2540 G-2	10/07/14
Arsenic	220	2.0	240	2.2	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

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SCIENCE CORP.

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FAX (615) 758-5859

H024

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: T32

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Chromium

Arsenic

HOLD

Packed on Ice N ☒

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV7-T31:6+12	Grab	SS		9-30-14		1		X			
MV7-S32:6+12	Grab	SS		9-30-14		1		X			L725SV6-01
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-2-14	Time: 1600	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 2:202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/3/14	Time: 0900
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Wednesday October 08, 2014

Report Number: L725549

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS

ESC Sample # : L725549-01

Sample ID : MV-HS5-1:30

Site ID : HS5

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.1	0.100	82.1		%	2540 G-2	10/07/14
Chromium	120	1.0	150	1.2	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS
Sample ID : MV-HS5-2:12+12
Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725549-02

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.9	0.100	79.9		%	2540 G-2	10/07/14
Arsenic	33.	2.0	41.	2.5	mg/kg	6010B	10/07/14
Chromium	56.	1.0	70.	1.2	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/08/14 12:38 Printed: 10/08/14 16:06



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS
Sample ID : MV-HS5-3:12+12
Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725549-03

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.6	0.100	75.6		%	2540 G-2	10/07/14
Chromium	58.	1.0	77.	1.3	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 08, 2014

Date Received : October 03, 2014
Description : Mt. Vernon CS
Sample ID : MV-HS5-4:12+12
Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725549-04

Site ID : HS5

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	78.9	0.100	78.9		%	2540 G-2	10/07/14
Arsenic	6.4	2.0	8.1	2.5	mg/kg	6010B	10/07/14
Chromium	75.	1.0	95.	1.3	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/08/14 12:38 Printed: 10/08/14 16:06

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Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

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FAX (615) 758-5859

H026

CoCode portenvtx (lab use only)

Template/Prelogin

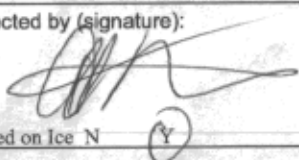
Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: HS5
P.O.#:

Collected by (signature):



Packed on Ice ☒ N ☐ Y

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Chromium

Arsenic

HOLD

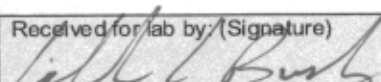
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic												
MV-HS5-1:30	Grab	SS		9-30-14		1	X	X												L 725519-01
MV--HS5-2:12+12	Grab	SS		9-30-14		1	X	X												02
MV-HS5-3:12+12	Grab	SS		9-30-14		1	X	X												03
MV-HS5-4:12+12	Grab	SS		9-30-14		1	X	X												04
	Grab	SS																		
	Grab	SS																		
	Grab	SS																		
	Grab	SS																		
	Grab	SS																		
	Grab	SS																		

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) 	Date: 10-2-14	Time: 1600	Received by: (Signature) 	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only) 
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 4-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 10/3/14	Time: 0900
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Thursday October 09, 2014

Report Number: L725552

Samples Received: 10/03/14

Client Project: MT. VERNON

Description: Mt.Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 09, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS3-2:6+12

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725552-01

Site ID : HS3

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.9	0.100	91.9		%	2540 G-2	10/07/14
Chromium	75.	1.0	82.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 09, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

ESC Sample # : L725552-02

Sample ID : MV-HS3-4:6+12

Site ID : HS3

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.4	0.100	92.4		%	2540 G-2	10/07/14
Chromium	78.	1.0	84.	1.1	mg/kg	6010B	10/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/09/14 10:25 Printed: 10/09/14 10:25



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 09, 2014

Date Received : October 03, 2014
Description : Mt.Vernon CS

Sample ID : MV-HS3-5:6+12

Collected By : Alan Hopkins
Collection Date : 09/30/14 00:00

ESC Sample # : L725552-03

Site ID : HS3

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.0	0.100	90.0		%	2540 G-2	10/07/14
Chromium	73.	1.0	81.	1.1	mg/kg	6010B	10/08/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/09/14 10:25 Printed: 10/09/14 10:25

Summary of Remarks For Samples Printed
10/09/14 at 10:25:32

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L725552-01 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/09/14 10:25

EDD=WD WA-EIM

Sample: L725552-02 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/09/14 10:25

EDD=WD WA-EIM

Sample: L725552-03 Account: PORTENVTX Received: 10/03/14 09:00 Due Date: 10/10/14 00:00 RPT Date: 10/09/14 10:25

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

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H027

CoCode portenvtx (lab use only)

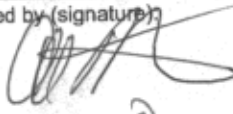
Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: HS3
P.O.#:

Collected by (signature): 
Packed on Ice N 
Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
Date Results Needed:
Email? ☐ No ☒ Yes
FAX? ☒ No ☐ Yes

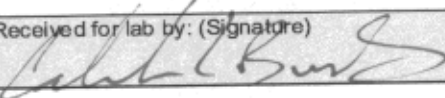
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	Arsenic	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-HS3-2:6+12	Grab	SS		9-30-14		1	X				L725552-01
MV--HS3-4:6+12	Grab	SS		9-30-14		1	X				02
MV-HS3-5:6+12	Grab	SS		9-30-14		1	X				03
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) 	Date: 10-2-14	Time: 1600	Received by: (Signature) 	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) 
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 3-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 10/3/14	Time: 0900
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Thursday October 09, 2014

Report Number: L725789

Samples Received: 10/06/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 09, 2014

Date Received : October 06, 2014
Description : Mt. Vernon CS

ESC Sample # : L725789-01

Sample ID : MV-DAY CREEK-SAND

Site ID : BACKFILL

Collected By : Alan Hopkins
Collection Date : 10/03/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	95.7	0.100	95.7		%	2540 G-2	10/09/14
Mercury	BDL	0.020	BDL	0.021	mg/kg	7471	10/08/14
Arsenic	2.1	2.0	2.2	2.1	mg/kg	6010B	10/09/14
Barium	48.	0.50	50.	0.52	mg/kg	6010B	10/09/14
Cadmium	1.8	0.50	1.9	0.52	mg/kg	6010B	10/09/14
Chromium	35.	1.0	36.	1.0	mg/kg	6010B	10/09/14
Lead	2.9	0.50	3.0	0.52	mg/kg	6010B	10/09/14
Selenium	BDL	2.0	BDL	2.1	mg/kg	6010B	10/09/14
Silver	BDL	1.0	BDL	1.0	mg/kg	6010B	10/09/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

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Phone (800) 767-5859

FAX (615) 758-5859

C221

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

1725 789

Remarks/Contaminant

Sample # (lab only)

Project Description: **Mt. Vernon CS**
City/State Collected: **Mt. Vernon**
Client Project #: **Mt. Vernon**
ESC Key: **PORTNOYENV-WAHG**

Collected by: **Alan Hopkins**

Site/Facility ID#: **Backfill**

P.O.#:

Collected by (signature):

Rush?

(Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

RCRA Metals

HOLD

Packed on Ice **N**

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Analysis/Container/Preservative	Remarks/Contaminant	Sample # (lab only)
MV-Day Creek-Sand	Grab	SS		10-3-14		1	☒		-9
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-3-14	Time: 1600	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb	Bottles Received: 1 (402)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/6/14	Time: 09:30
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Tuesday October 14, 2014

Report Number: L726552

Samples Received: 10/09/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 14, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS
Sample ID : MV-WATER
Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726552-01

Site ID : WATER

Project # : MT. VERNON

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	8.7	1.0	ug/l	6020	10/14/14	1
Mercury	BDL	0.20	ug/l	7470A	10/10/14	1
Chromium	BDL	10.	ug/l	6010B	10/10/14	1
Lead	9.7	5.0	ug/l	6010B	10/10/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/14/14 11:54 Printed: 10/14/14 11:54

Summary of Remarks For Samples Printed
10/14/14 at 11:54:28

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L726552-01 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/14/14 11:54
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
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Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
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Phone (615) 758-5858

10-0033

C094

Project
Description:

Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:

Mt. Vernon

ESC Key:

PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: Water

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Chromium

Arsenic

Lead

Mercury

HOLD

CoCode portenvtx

(lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Chromium	Arsenic	Lead	Mercury	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-Water	Grab	SS		10-8-14		5	X	X	X			6726552-1
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										
	Grab	SS										

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

TOTALS FOR EACH

Flow Other

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: PH Adjusted 1257 10/9/14
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8	Bottles Received: 5 (QQ NP)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/9/14	Time: 09:00
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Monday October 13, 2014

Report Number: L726559

Samples Received: 10/09/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
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SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-R23:21

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-01

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.4	0.100	93.4		%	2540 G-2	10/13/14
Arsenic	4.9	2.0	5.2	2.1	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-P22:18

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-02

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.7	0.100	91.7		%	2540 G-2	10/13/14
Arsenic	14.	2.0	15.	2.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-03

Sample ID : MV-CA-R22:24

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.8	0.100	74.8		%	2540 G-2	10/13/14
Arsenic	15.	2.0	20.	2.7	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-P24:18
Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-04

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.8	0.100	92.8		%	2540 G-2	10/13/14
Arsenic	86.	2.0	93.	2.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-R22:12

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-05

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.3	0.100	87.3		%	2540 G-2	10/13/14
Arsenic	6.0	2.0	6.9	2.3	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-S22:30

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-06

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	83.7	0.100	83.7		%	2540 G-2	10/13/14
Arsenic	180	2.0	220	2.4	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-07

Sample ID : MV-CA-R22:21

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	77.5	0.100	77.5		%	2540 G-2	10/13/14
Arsenic	11.	2.0	14.	2.6	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-S22:27

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-08

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.5	0.100	87.5		%	2540 G-2	10/13/14
Arsenic	92.	2.0	100	2.3	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-T22:24
Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-09

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.0	0.100	92.0		%	2540 G-2	10/13/14
Arsenic	400	2.0	430	2.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U21:12

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-10

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.7	0.100	91.7		%	2540 G-2	10/13/14
Arsenic	45.	2.0	49.	2.2	mg/kg	6010B	10/13/14
Lead	32.	0.50	35.	0.54	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:11 Printed: 10/13/14 12:12



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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-11

Sample ID : MV-CA-W20:36

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	83.7	0.100	83.7		%	2540 G-2	10/13/14
Arsenic	72.	2.0	86.	2.4	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-V20:24

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-12

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.3	0.100	89.3		%	2540 G-2	10/13/14
Arsenic	6.4	2.0	7.2	2.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-13

Sample ID : MV-CA-V21:30

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	73.9	0.100	73.9		%	2540 G-2	10/13/14
Arsenic	6.8	2.0	9.2	2.7	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-14

Sample ID : MV-CA-Z19:24

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.8	0.100	93.8		%	2540 G-2	10/13/14
Arsenic	9.8	2.0	10.	2.1	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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1414 W. Sam Houston Pkwy. N., Suite
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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-AA18:12

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-15

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.6	0.100	89.6		%	2540 G-2	10/13/14
Arsenic	120	2.0	130	2.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-16

Sample ID : MV-CA-Z17:6

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.6	0.100	94.6		%	2540 G-2	10/13/14
Arsenic	49.	2.0	52.	2.1	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-X20:24

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-17

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.9	0.100	82.9		%	2540 G-2	10/13/14
Arsenic	76.	2.0	92.	2.4	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Z19:18

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-18

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.6	0.100	90.6		%	2540 G-2	10/13/14
Arsenic	170	2.0	190	2.2	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Y20:18

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-19

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	77.2	0.100	77.2		%	2540 G-2	10/13/14
Arsenic	10.	2.0	13.	2.6	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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1414 W. Sam Houston Pkwy. N., Suite
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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Y18:12

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-20

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.9	0.100	91.9		%	2540 G-2	10/13/14
Arsenic	160	2.0	170	2.2	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-W19:12

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-21

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	86.6	0.100	86.6		%	2540 G-2	10/13/14
Arsenic	31.	2.0	36.	2.3	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

ESC Sample # : L726559-22

Sample ID : MV-CA-T21:18

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.2	0.100	89.2		%	2540 G-2	10/13/14
Arsenic	82.	2.0	92.	2.2	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Q24:24

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-23

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.8	0.100	94.8		%	2540 G-2	10/13/14
Arsenic	9.2	2.0	9.7	2.1	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

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REPORT OF ANALYSIS

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-T23:24
Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726559-24

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.6	0.100	82.6		%	2540 G-2	10/13/14
Lead	7.6	0.50	9.2	0.60	mg/kg	6010B	10/12/14

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L726559-16	WG747834	SAMP	Arsenic	R2996934	J3J5

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

[illegible]

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 3

Prepared by:

 **ENVIRONMENTAL
SCIENCE CORP.**

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Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

C093

Project
Description:

Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key:
PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: RA1

P.O.#:

Collected by (signature):



Rush? (Lab MUST Be Notified)

____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Packed on Ice ☒ N ☐ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Arsenic	Lead	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-CA-R23:21	Grab	SS		10-8-14		1	X				6726559-01
MV-CA-P22:18	Grab	SS				1	X				02
MV-CA-R22:24	Grab	SS				1	X				03
MV-CA-P24:18	Grab	SS				1	X				07
MV-CA-R22:12	Grab	SS				1	X				05
MV-CA-S22:30	Grab	SS				1	X				06
MV-CA-R22:21	Grab	SS				1	X				07
MV-CA-S22:27	Grab	SS				1	X				08
MV-CA-T22:24	Grab	SS				1	X				09

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only) AN
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8	Bottles Received: 24 (202)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/9/14	Time: 09:00
				pH Checked:	NCF:

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Project
Description:

Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key:
PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: RA1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice N ☒ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-CA-U21:12	Grab	SS		10-8-14		1	X	X			L726555-10
MV-CA-W20:36	Grab	SS				1	X	X			11
MV-CA-V20:24	Grab	SS				1	X	X			12
MV-CA-V21:30	Grab	SS				1	X	X			13
MV-CA-Z19:24	Grab	SS				1	X	X			14
MV-CA-AA18:12	Grab	SS				1	X	X			15
MV-CA-Z17:6	Grab	SS				1	X	X			16
MV-CA-X20:24	Grab	SS				1	X	X			17
MV-CA-Z19:18	Grab	SS				1	X	X			18

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) ☒
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8	Bottles Received: 24 (202)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/9/14	Time: 09:00
				pH Checked:	NCF:

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

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Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 3 of 3

Prepared by:

 **ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

Project Description: **Mt. Vernon CS**
City/State Collected: **Mt. Vernon**
Client Project #: **Mt. Vernon**
ESC Key: **PORTNOYENV-WAHG**
Phone: **713-805-2994**
FAX: **832-295-6404**

Collected by: **Alan Hopkins**
Site/Facility ID#: **RA1**
P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice ☒ N

CoCode **portenvtx** (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-CA-Y20:18	Grab	SS		10-8-14		1	X				676559-19
MV-CA-Y18:12	Grab	SS				1	X				20
MV-CA-W19:12	Grab	SS				1	X				21
MV-CA-T21:18	Grab	SS				1	X				22
MV-CA-Q24:24	Grab	SS				1	X				23
MV-CA-T23:24	Grab	SS				1	X				27
	Grab	SS									
	Grab	SS									
	Grab	SS									

*Matrix **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only) AW
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8i	Bottles Received: 24 (202)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/9/14	Time: 09:00
				pH Checked:	NCF:



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Est. 1970

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Monday October 13, 2014

Report Number: L726575

Samples Received: 10/09/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-2A

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726575-01

Site ID : TEE-2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.9	0.100	93.9		%	2540 G-2	10/13/14
Chromium	38.	1.0	40.	1.1	mg/kg	6010B	10/10/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:12 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-2B

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726575-02

Site ID : TEE-2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	95.6	0.100	95.6		%	2540 G-2	10/13/14
Chromium	50.	1.0	52.	1.0	mg/kg	6010B	10/10/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:12 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-2C

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726575-03

Site ID : TEE-2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.0	0.100	91.0		%	2540 G-2	10/13/14
Chromium	46.	1.0	50.	1.1	mg/kg	6010B	10/10/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:12 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-2D

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726575-04

Site ID : TEE-2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.6	0.100	94.6		%	2540 G-2	10/13/14
Chromium	36.	1.0	38.	1.0	mg/kg	6010B	10/10/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:12 Printed: 10/13/14 12:12



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-2E

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726575-05

Site ID : TEE-2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	95.4	0.100	95.4		%	2540 G-2	10/13/14
Chromium	28.	1.0	29.	1.0	mg/kg	6010B	10/10/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/13/14 12:12 Printed: 10/13/14 12:12

Summary of Remarks For Samples Printed
10/13/14 at 12:12:36

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L726575-01 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:12
EDD=WD WA-EIM
Sample: L726575-02 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:12
EDD=WD WA-EIM
Sample: L726575-03 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:12
EDD=WD WA-EIM
Sample: L726575-04 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:12
EDD=WD WA-EIM
Sample: L726575-05 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:12
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to: NWPL Team

Email to: ahopkins@pei-tx.com

Project Description: Mt. Vernon CS

City/State Collected: Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #: Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: TEE-2

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Packed on Ice: ☒ N

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Analysis/Container/Preservative	Remarks/Contaminant	Sample # (lab only)
MV-TEE-2A	Grab	SS		10-8-14		1	Chromium		6726575-01
MV-TEE-2B	Grab	SS				1	X		12
MV-TEE-2C	Grab	SS				1	X		07
MV-TEE-2D	Grab	SS				1	X		09
MV-TEE-2E	Grab	SS				1	X		05
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							

pH _____ Temp _____

Flow _____ Other _____

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) ☒
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8	Bottles Received: 5 (202)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/9/14	Time: 09:00
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Monday October 13, 2014

Report Number: L726596

Samples Received: 10/09/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-1A

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726596-01

Site ID : TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	96.2	0.100	96.2		%	2540 G-2	10/13/14
Chromium	54.	5.0	56.	5.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:13 Printed: 10/13/14 12:13



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-1B

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726596-02

Site ID : TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	96.0	0.100	96.0		%	2540 G-2	10/13/14
Chromium	42.	5.0	44.	5.2	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:13 Printed: 10/13/14 12:13



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-1C

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726596-03

Site ID : TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.7	0.100	94.7		%	2540 G-2	10/13/14
Chromium	64.	5.0	68.	5.3	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:13 Printed: 10/13/14 12:13



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-1D

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726596-04

Site ID : TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	93.6	0.100	93.6		%	2540 G-2	10/13/14
Chromium	80.	1.0	85.	1.1	mg/kg	6010B	10/12/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/13/14 12:13 Printed: 10/13/14 12:13



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 13, 2014

Date Received : October 09, 2014
Description : Mt. Vernon CS

Sample ID : MV-TEE-1E

Collected By : Alan Hopkins
Collection Date : 10/08/14 00:00

ESC Sample # : L726596-05

Site ID : TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	94.0	0.100	94.0		%	2540 G-2	10/13/14
Chromium	44.	5.0	47.	5.3	mg/kg	6010B	10/13/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/13/14 12:13 Printed: 10/13/14 12:13

Summary of Remarks For Samples Printed
10/13/14 at 12:13:49

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L726596-01 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:13

EDD=WD WA-EIM

Sample: L726596-02 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:13

EDD=WD WA-EIM

Sample: L726596-03 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:13

EDD=WD WA-EIM

Sample: L726596-04 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:13

EDD=WD WA-EIM

Sample: L726596-05 Account: PORTENVTX Received: 10/09/14 09:00 Due Date: 10/16/14 00:00 RPT Date: 10/13/14 12:13

EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Project
Description:

Mt. Vernon CS

City/State
Collected

Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #:
Mt. Vernon

ESC Key:
PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: TEE-1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cnts

Chromium

HOLD

Packed on Ice ☒ N ☐ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Chromium	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-TEE-1A	Grab	SS		10-8-14		1	X			6726596-01
MV-TEE-1B	Grab	SS				1	X			02
MV-TEE-1C	Grab	SS				1	X			01
MV-TEE-1D	Grab	SS				1	X			05
MV-TEE-1E	Grab	SS				1	X			
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-8-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8i	Bottles Received: 5/202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/5/14	Time: 09:00



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Friday October 24, 2014

Report Number: L728747

Samples Received: 10/21/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-6-TEE-1A

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728747-01

Site ID : SB3-6 TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.2	0.100	90.2		%	2540 G-2	10/24/14
Chromium	66.	1.0	73.	1.1	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/24/14 09:04 Printed: 10/24/14 09:05



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB3-6-TEE-1B
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728747-02

Site ID : SB3-6 TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.1	0.100	87.1		%	2540 G-2	10/24/14
Chromium	60.	1.0	69.	1.1	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-6-TEE-1C

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728747-03

Site ID : SB3-6 TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.4	0.100	87.4		%	2540 G-2	10/24/14
Chromium	69.	1.0	79.	1.1	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-6-TEE-1D

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728747-04

Site ID : SB3-6 TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.2	0.100	89.2		%	2540 G-2	10/24/14
Chromium	51.	1.0	57.	1.1	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-6-TEE-1E

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728747-05

Site ID : SB3-6 TEE-1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.9	0.100	92.9		%	2540 G-2	10/24/14
Chromium	73.	1.0	78.	1.1	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05

Summary of Remarks For Samples Printed
10/24/14 at 09:05:15

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728747-01 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

EDD=WD WA EIM

Sample: L728747-02 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728747-03 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728747-04 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728747-05 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

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FAX (615) 758-5859

J077

Project Description: Mt. Vernon CS

City/State Collected: Mt. Vernon

Phone: 713-805-2994
FAX: 832-295-6404

Client Project #: Mt. Vernon

ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: SB3-6
TEE-1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Chromium

HOLD

Packed on Ice N

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID

Comp/Grab

Matrix*

Depth

Date

Time

SB3-6-TEE-1A

Grab

SS

10-20-14

SB3-6-TEE-1B

Grab

SS

SB3-6-TEE-1C

Grab

SS

SB3-6-TEE-1D

Grab

SS

SB3-6-TEE-1E

Grab

SS

Grab

SS

Grab

SS

Grab

SS

Grab

SS

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH Temp

Flow Other

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Samples returned via: ☐ UPS

Condition: (lab use only)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp:

Bottles Received:

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

pH Checked:

NCF:

6194 4940 9612

☒ FedEx ☐ Courier

2.4°

S-202

10/21/14

1100

OK

101

Calah L. Bushy



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Friday October 24, 2014

Report Number: L728751

Samples Received: 10/21/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-2A
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728751-01

Site ID : SB7-TEE2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.4	0.100	76.4		%	2540 G-2	10/24/14
Chromium	58.	1.0	76.	1.3	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-2B
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728751-02

Site ID : SB7-TEE2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.0	0.100	74.0		%	2540 G-2	10/24/14
Chromium	45.	1.0	61.	1.4	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05



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Portnoy Environmental
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Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-2C
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728751-03

Site ID : SB7-TEE2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	71.7	0.100	71.7		%	2540 G-2	10/24/14
Chromium	49.	1.0	68.	1.4	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05



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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-2D
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728751-04

Site ID : SB7-TEE2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.5	0.100	75.5		%	2540 G-2	10/24/14
Chromium	53.	1.0	70.	1.3	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB7-1011-TEE-2E

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728751-05

Site ID : SB7-TEE2

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.2	0.100	76.2		%	2540 G-2	10/24/14
Chromium	55.	1.0	72.	1.3	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 09:04 Printed: 10/24/14 09:05

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L728751-01	WG750349	SAMP	Total Solids	R2999917	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
10/24/14 at 09:05:25

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728751-01 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04
EDD=WA EIM

Sample: L728751-02 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728751-03 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728751-04 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Sample: L728751-05 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 09:04

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

 **ENVIRONMENTAL
SCIENCE CORP.**

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Mt. Juliet, TN 37122

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Phone (800) 767-5859

FAX (615) 758-5859

J076

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: ~~SB7-TEE-2~~ **SB7-TEE-2**

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Date Results Needed:

Same Day.....200%

Next Day.....100%

Two Day.....50%

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Packed on Ice ☒ N ☐ Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	HOLD
SB7-1011-TEE-2A	Grab	SS		10-20-14		1	X	
SB7-1011-TEE-2B	Grab	SS				1	X	
SB7-1011-TEE-2C	Grab	SS				1	X	
SB7-1011-TEE-2D	Grab	SS				1	X	
SB7-1011-TEE-2E	Grab	SS				1	X	
	Grab	SS						
	Grab	SS						
	Grab	SS						
	Grab	SS						

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-20-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 24°C	Bottles Received: 5-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/14	Time: 1100
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Friday October 24, 2014

Report Number: L728754

Samples Received: 10/21/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB7-1011-TEE-1A

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728754-01

Site ID : SB7 TEE 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.2	0.100	74.2		%	2540 G-2	10/24/14
Chromium	53.	1.0	71.	1.3	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/24/14 18:24 Printed: 10/24/14 18:24



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-1B
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728754-02

Site ID : SB7 TEE 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	71.6	0.100	71.6		%	2540 G-2	10/24/14
Chromium	63.	5.0	88.	7.0	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 18:24 Printed: 10/24/14 18:24



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB7-1011-TEE-1C

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728754-03

Site ID : SB7 TEE 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.2	0.100	76.2		%	2540 G-2	10/24/14
Chromium	55.	5.0	72.	6.6	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-1D
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728754-04

Site ID : SB7 TEE 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	73.6	0.100	73.6		%	2540 G-2	10/24/14
Chromium	52.	1.0	71.	1.4	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : SB7-1011-TEE-1E
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728754-05

Site ID : SB7 TEE 1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	71.0	0.100	71.0		%	2540 G-2	10/24/14
Chromium	56.	5.0	79.	7.0	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Summary of Remarks For Samples Printed
10/24/14 at 18:24:27

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728754-01 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24
EDD=WD WA EIM

Sample: L728754-02 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728754-03 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728754-04 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728754-05 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

 **ENVIRONMENTAL
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J075

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins
Site/Facility ID#: SB7-1011-TEE-1A

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Packed on Ice N

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	HOLD
SB7-1011-TEE-1A	Grab	SS		10-20-14		1	X	
SB7-1011-TEE-1B	Grab	SS				1	X	
SB7-1011-TEE-1C	Grab	SS				1	X	
SB7-1011-TEE-1D	Grab	SS				1	X	
SB7-1011-TEE-1E	Grab	SS				1	X	
	Grab	SS						
	Grab	SS						
	Grab	SS						
	Grab	SS						

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH Temp

Flow Other

Relinquished by: (Signature)	Date: 10-20-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS	Condition: OK (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 24.0	Bottles Received: 5-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/14	Time: 1100
				pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Friday October 24, 2014

Report Number: L728757

Samples Received: 10/21/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-2-TEE-3A

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728757-01

Site ID : SB3-2 TEE

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.1	0.100	90.1		%	2540 G-2	10/24/14
Chromium	64.	1.0	71.	1.1	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-2-TEE-3B

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728757-02

Site ID : SB3-2 TEE

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.8	0.100	89.8		%	2540 G-2	10/24/14
Chromium	81.	5.0	90.	5.6	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-2-TEE-3C

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728757-03

Site ID : SB3-2 TEE

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.2	0.100	90.2		%	2540 G-2	10/24/14
Chromium	66.	1.0	73.	1.1	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-2-TEE-3D

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728757-04

Site ID : SB3-2 TEE

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.1	0.100	91.1		%	2540 G-2	10/24/14
Chromium	63.	1.0	69.	1.1	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 18:24 Printed: 10/24/14 18:24



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 24, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : SB3-2-TEE-3E

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728757-05

Site ID : SB3-2 TEE

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	92.0	0.100	92.0		%	2540 G-2	10/24/14
Chromium	87.	1.0	94.	1.1	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/24/14 18:24 Printed: 10/24/14 18:24

Summary of Remarks For Samples Printed
10/24/14 at 18:24:30

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728757-01 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24
EDD=WD WA EIM

Sample: L728757-02 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728757-03 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728757-04 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Sample: L728757-05 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/24/14 18:24

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

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J074

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins
Site/Facility ID#: SB3-2 TEE

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice N Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Chromium	HOLD	Remarks/Contaminant	Sample # (lab only)
SB3-2 - TEE-3A	Grab	SS		10-20-14		1	X		LT857	-01
SB3-2-TEE-3B	Grab	SS				1	X			-02
SB3-2-TEE-3C	Grab	SS				1	X			-03
SB3-2-TEE-3D	Grab	SS				1	X			-04
SB3-2-TEE-3E	Grab	SS				1	X			-05
	Grab	SS								
	Grab	SS								
	Grab	SS								
	Grab	SS								

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 10-20-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 24°C	Bottles Received: 5-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/14	Time: 1100



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Tuesday October 28, 2014

Report Number: L728760

Samples Received: 10/21/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-P24:24
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-01

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.4	0.100	76.4		%	2540 G-2	10/24/14
Arsenic	8.0	2.0	10.	2.6	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-R24:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-02

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.4	0.100	90.4		%	2540 G-2	10/24/14
Arsenic	19.	2.0	21.	2.2	mg/kg	6010B	10/23/14
Lead	9.3	0.50	10.	0.55	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-Q23:12
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-03

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.0	0.100	87.0		%	2540 G-2	10/24/14
Arsenic	9.3	2.0	11.	2.3	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-P25:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-04

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.2	0.100	90.2		%	2540 G-2	10/24/14
Arsenic	8.0	2.0	8.9	2.2	mg/kg	6010B	10/23/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

ESC Sample # : L728760-05

Sample ID : MV-CA-S21:12

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	80.6	0.100	80.6		%	2540 G-2	10/24/14
Arsenic	6.8	2.0	8.4	2.5	mg/kg	6010B	10/24/14
Lead	4.9	0.50	6.1	0.62	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U22:24

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-06

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.2	0.100	74.2		%	2540 G-2	10/24/14
Arsenic	7.7	2.0	10.	2.7	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 10/28/14 16:56 Printed: 10/28/14 16:56



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-V21:36

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-07

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.5	0.100	74.5		%	2540 G-2	10/24/14
Arsenic	6.6	2.0	8.8	2.7	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-V20:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-08

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	87.5	0.100	87.5		%	2540 G-2	10/24/14
Arsenic	76.	2.0	87.	2.3	mg/kg	6010B	10/24/14
Lead	70.	0.50	80.	0.57	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-X21:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-09

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.2	0.100	74.2		%	2540 G-2	10/24/14
Arsenic	6.6	2.0	8.9	2.7	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

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REPORT OF ANALYSIS

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Y20:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-10

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.8	0.100	89.8		%	2540 G-2	10/24/14
Arsenic	17.	2.0	19.	2.2	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Y19:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-11

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	90.7	0.100	90.7		%	2540 G-2	10/24/14
Arsenic	150	2.0	160	2.2	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Z18:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-12

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	86.4	0.100	86.4		%	2540 G-2	10/24/14
Arsenic	7.4	2.0	8.6	2.3	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-T20:12
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-13

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.3	0.100	89.3		%	2540 G-2	10/24/14
Arsenic	12.	2.0	13.	2.2	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-X19:12
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-14

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	76.5	0.100	76.5		%	2540 G-2	10/24/14
Arsenic	5.4	2.0	7.0	2.6	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

ESC Sample # : L728760-15

Sample ID : MV-CA-025:30

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	78.1	0.100	78.1		%	2540 G-2	10/24/14
Arsenic	17.	2.0	22.	2.6	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

ESC Sample # : L728760-16

Sample ID : MV-CA-R23:30

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	85.3	0.100	85.3		%	2540 G-2	10/24/14
Arsenic	9.2	2.0	11.	2.3	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-W19:24

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-17

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.4	0.100	91.4		%	2540 G-2	10/24/14
Arsenic	64.	2.0	70.	2.2	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

ESC Sample # : L728760-18

Sample ID : MV-CA-T21:12

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	77.4	0.100	77.4		%	2540 G-2	10/24/14
Arsenic	20.	2.0	26.	2.6	mg/kg	6010B	10/24/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U20:12

Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-19

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.4	0.100	79.4		%	2540 G-2	10/24/14
Arsenic	73.	2.0	92.	2.5	mg/kg	6010B	10/25/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Houston, TX 77043

October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-SB7-1009:12
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-20

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	86.9	0.100	86.9		%	2540 G-2	10/24/14
Arsenic	16.	2.0	18.	2.3	mg/kg	6010B	10/25/14
Lead	8.8	2.5	10.	2.9	mg/kg	6010B	10/28/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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L728760-20 (ICP METALS) - MS/MSD invalid due to required sample dillution. Fe high.



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
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October 28, 2014

Date Received : October 21, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-SB7-0909:12
Collected By : Alan Hopkins
Collection Date : 10/20/14 00:00

ESC Sample # : L728760-21

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.9	0.100	82.9		%	2540 G-2	10/24/14
Lead	4.1	2.5	4.9	3.0	mg/kg	6010B	10/28/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Reported: 10/28/14 16:56 Printed: 10/28/14 16:57

L728760-21 (ICP METALS) - Dilution due to matrix

Summary of Remarks For Samples Printed
10/28/14 at 16:57:03

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728760-01 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
EDD=WD WA EIM
Sample: L728760-02 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-03 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-04 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-05 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-06 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-07 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-08 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-09 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-10 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-11 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-12 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-13 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-14 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-15 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-16 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-17 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-18 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-19 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-20 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56
Sample: L728760-21 Account: PORTENVTX Received: 10/21/14 11:00 Due Date: 10/28/14 00:00 RPT Date: 10/28/14 16:56

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 3

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

J073

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: RA1
P.O.#:

Collected by (signature):
Packed on Ice: N
Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
Date Results Needed:
Email? ☐ No ☒ Yes
FAX? ☒ No ☐ Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-CA-P24:24	Grab	SS		10-20-14		1	X			L728760	-d
MV-CA-R24:12	Grab	SS				1	X	X			-02
MV-CA-Q23:12	Grab	SS				1	X				-03
MV-CA-P25:12	Grab	SS				1	X				-04
MV-CA-S21:12	Grab	SS				1	X	X			-05
MV-CA-U22:24	Grab	SS				1	X				-06
MV-CA-V21:36	Grab	SS				1	X				-07
MV-CA-V20:12	Grab	SS				1	X	X			-08
MV-CA-X21:12	Grab	SS				1	X				-09

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date: 10/20/14	Time: 1630	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier	Condition: OK (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 24°	Bottles Received: 21-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/14	Time: 1100
				pH Checked:	NCF:

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 3 of 3

Prepared by:

 ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG

Collected by: Alan Hopkins

Site/Facility ID#: RA1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Packed on Ice N Y

No.
of
Cntrs

Arsenic

Lead

HOLD

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead	Cadmium	Copper	Chromium	Iron	Manganese	Nickel	Silver	Vanadium	HC	Remarks/Contaminant	Sample # (lab only)
MV-CA-U20:12	Grab	SS		10-20-14		1	X											272860	-19
MV-CA-587-1009:12	Grab	SS		↓		1	X	X											-20
MV-CA-587-0909:12	Grab	SS				1		X											-21
	Grab	SS																	
	Grab	SS																	
	Grab	SS																	
	Grab	SS																	
	Grab	SS																	
	Grab	SS																	
	Grab	SS																	

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date: 10-20-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 24°	Bottles Received: 21-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/14	Time: 1100
					pH Checked: NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Monday October 27, 2014

Report Number: L728996

Samples Received: 10/22/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-S22:36
Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-01

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	72.5	0.100	72.5		%	2540 G-2	10/25/14
Arsenic	9.6	2.0	13.	2.8	mg/kg	6010B	10/25/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-T22:30

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-02

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	73.6	0.100	73.6		%	2540 G-2	10/25/14
Arsenic	10.	2.0	14.	2.7	mg/kg	6010B	10/25/14

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RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-X20:30

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-03

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.4	0.100	75.4		%	2540 G-2	10/25/14
Arsenic	9.1	2.0	12.	2.6	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-W20:42
Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-04

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.3	0.100	75.3		%	2540 G-2	10/25/14
Arsenic	9.5	2.0	13.	2.6	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

ESC Sample # : L728996-05

Sample ID : MV-CA-X18:12

Site ID : RA1

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.2	0.100	75.2		%	2540 G-2	10/25/14
Arsenic	11.	2.0	15.	2.6	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Z17:6+12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-06

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.7	0.100	91.7		%	2540 G-2	10/25/14
Arsenic	100	2.0	110	2.2	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-W18:6

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-07

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	83.1	0.100	83.1		%	2540 G-2	10/25/14
Arsenic	9.7	2.0	12.	2.4	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-U19:12
Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-08

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	91.3	0.100	91.3		%	2540 G-2	10/25/14
Arsenic	780	2.0	850	2.2	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U18:6

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-09

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.6	0.100	89.6		%	2540 G-2	10/25/14
Arsenic	110	2.0	120	2.2	mg/kg	6010B	10/25/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-T18:12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-10

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.0	0.100	74.0		%	2540 G-2	10/25/14
Arsenic	24.	2.0	32.	2.7	mg/kg	6010B	10/25/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-T19:12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-11

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.2	0.100	74.2		%	2540 G-2	10/25/14
Arsenic	7.6	2.0	10.	2.7	mg/kg	6010B	10/25/14

BDL - Below Detection Limit

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U17:12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-12

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	73.5	0.100	73.5		%	2540 G-2	10/25/14
Arsenic	11.	2.0	15.	2.7	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-V16:6

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-13

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	89.7	0.100	89.7		%	2540 G-2	10/25/14
Arsenic	170	2.0	190	2.2	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-Y18:18

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-14

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.9	0.100	74.9		%	2540 G-2	10/25/14
Arsenic	12.	2.0	16.	2.7	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS
Sample ID : MV-CA-Z19:18+12
Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-15

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	73.2	0.100	73.2		%	2540 G-2	10/25/14
Arsenic	11.	2.0	15.	2.7	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-AA18:12+12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-16

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	74.1	0.100	74.1		%	2540 G-2	10/24/14
Arsenic	12.	2.0	16.	2.7	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-P24:18+12

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-17

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.0	0.100	75.0		%	2540 G-2	10/24/14
Arsenic	8.8	2.0	12.	2.7	mg/kg	6010B	10/25/14

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October 27, 2014

Date Received : October 22, 2014
Description : Mt. Vernon CS

Sample ID : MV-CA-U21:24

Collected By : Alan Hopkins
Collection Date : 10/21/14 00:00

ESC Sample # : L728996-18

Site ID : RA1

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	75.6	0.100	75.6		%	2540 G-2	10/24/14
Arsenic	6.3	2.0	8.3	2.6	mg/kg	6010B	10/26/14

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Reported: 10/27/14 10:50 Printed: 10/27/14 10:51

Summary of Remarks For Samples Printed
10/27/14 at 10:51:20

TSR Signing Reports: 690
R5 - Desired TAT

EDD=WD WA-EIM

Sample: L728996-01 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-02 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-03 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-04 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-05 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-06 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-07 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-08 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-09 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-10 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-11 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-12 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-13 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-14 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-15 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-16 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-17 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM
Sample: L728996-18 Account: PORTENVTX Received: 10/22/14 09:00 Due Date: 10/29/14 00:00 RPT Date: 10/27/14 10:50
EDD=WD WA-EIM

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 2

Prepared by:

 **ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
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Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

D221

CoCode portenvtx (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: RA1
P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice N ☒ Y

Arsenic

Lead

HOLD

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead												
MV-CA-S22:36	Grab	SS		10-21-14		1	X													L728996-01
MV-CA-T22:30	Grab	SS				1	X													-02
MV-CA-X20:30	Grab	SS				1	X													-03
MV-CA-W20:42	Grab	SS				1	X													-04
MV-CA-X18:12	Grab	SS				1	X													-05
MV-CA-Z17:6+12	Grab	SS				1	X													-06
MV-CA-W18:6	Grab	SS				1	X													-07
MV-CA-U19:12	Grab	SS				1	X													-08
MV-CA-U18:6	Grab	SS				1	X													-09

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature)	Date: 10-21-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: AMB	Bottles Received: 18-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/22/14	Time: 0900

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 2 of 2

Prepared by:

 **ENVIRONMENTAL
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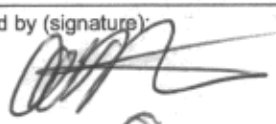
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Mt. Vernon CS
City/State Collected: Mt. Vernon
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: Mt. Vernon
ESC Key: PORTNOYENV-WAHG
Collected by: Alan Hopkins
Site/Facility ID#: RA1
P.O.#:

Collected by (signature): 
Packed on Ice N 
Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
Date Results Needed:
Email? ☐ No ☒ Yes
FAX? ☒ No ☐ Yes

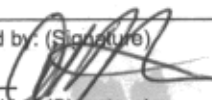
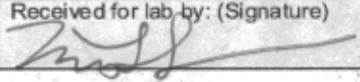
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Arsenic	Lead	Flow	HOLD	Remarks/Contaminant	Sample # (lab only)
MV-CA-T18:12	Grab	SS		10-21-14		1	X					L728996-10
MV-CA-T19:12	Grab	SS				1	X					-11
MV-CA-U17:12	Grab	SS				1	X					-12
MV-CA-V16:6	Grab	SS				1	X					-13
MV-CA-Y18:18	Grab	SS				1	X					-14
MV-CA-Z19:18+12	Grab	SS				1	X					-15
MV-CA-AA18:12+12	Grab	SS				1	X					-16
MV-CA-P24:18+12	Grab	SS				1	X					-17
MV-CA-U21:24	Grab	SS				1	X					-18

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) 	Date: 10-21-14	Time: 1630	Received by: (Signature) 	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) 		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: AN6	Bottles Received: 18=203		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 10/22/14	Time: 0900	pH Checked:	NCF:



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Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Friday November 07, 2014

Report Number: L731385

Samples Received: 11/04/14

Client Project: MT. VERNON

Description: Mt. Vernon CS

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-2

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-01

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	80.4	0.100	80.4		%	2540 G-2	11/07/14
Chromium	59.	1.0	73.	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-3

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-02

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	50.5	0.100	50.5		%	2540 G-2	11/07/14
Chromium	40.	1.0	79.	2.0	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
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November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-4

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-03

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	77.4	0.100	77.4		%	2540 G-2	11/07/14
Chromium	59.	1.0	76.	1.3	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-5

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-04

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	84.3	0.100	84.3		%	2540 G-2	11/07/14
Chromium	64.	1.0	76.	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-6

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-05

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	85.3	0.100	85.3		%	2540 G-2	11/07/14
Chromium	300	1.0	350	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 11/07/14 13:29 Printed: 11/07/14 15:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-7

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-06

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.9	0.100	79.9		%	2540 G-2	11/07/14
Chromium	63.	1.0	79.	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 11/07/14 13:29 Printed: 11/07/14 15:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
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Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-8

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-07

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	78.1	0.100	78.1		%	2540 G-2	11/07/14
Chromium	88.	1.0	110	1.3	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 11/07/14 13:29 Printed: 11/07/14 15:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-9

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-08

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	79.4	0.100	79.4		%	2540 G-2	11/07/14
Chromium	75.	1.0	94.	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/07/14 13:29 Printed: 11/07/14 15:38



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REPORT OF ANALYSIS

Alan Hopkins and NWPL Team
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

November 07, 2014

Date Received : November 04, 2014
Description : Mt. Vernon CS

Sample ID : MV-BACK-10

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731385-09

Site ID : BACKGROUND

Project # : MT. VERNON

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	82.0	0.100	82.0		%	2540 G-2	11/07/14
Chromium	76.	1.0	93.	1.2	mg/kg	6010B	11/07/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/07/14 13:29 Printed: 11/07/14 15:38

Relinquished by: (Signature)	Date: 11-3-14	Time: 1630	Received by: (Signature)	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition:	(lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: AmG.	Bottles Received: 9-202	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/4/14	Time: 0900	pH Checked: NCF: ☒

Portnoy Environmental
1414 W. Sam Houston Pkwy N.
Suite 170
Houston, TX 77043

Alternate billing information:

Aaron Galer
Northwest Pipeline

Report to:

NWPL Team

Email to:

ahopkins@pei-tx.com

Analysis/Container/Preservative

Chain of Custody
Page 2 of 2

Prepared by:

 **ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: **Mt. Vernon CS**
City/State Collected: **Mt. Vernon**
Phone: 713-805-2994
FAX: 832-295-6404
Client Project #: **Mt. Vernon**
ESC Key: **PORTNOYENV-WAHG**

Collected by: **Alan Hopkins**
Site/Facility ID#: **Backgrou**
nd

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

Two Day 50%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

No.
of
Cntrs

Packed on Ice ☐ N ☐ Y

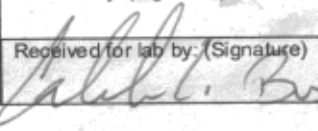
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Analysis/Container/Preservative	Remarks/Contaminant	Sample # (lab only)
MV-Back-10	Grab	SS		11-3-14		1	Chromium		L731385-09
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							
	Grab	SS							

*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) 	Date: 11-3-14	Time: 1620	Received by: (Signature) 	Samples returned via: ☒ UPS ☐ FedEx ☐ Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 9-202
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/4/14	Time: 0900
					pH Checked: NCF: ☒

Jason Romer

ESC Lab Sciences
Non-Conformance Form

Login #: L731385	Client: PORTENVTX	Date: 11/04/14	Evaluated by: Caleb Busby

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
X Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments:

Received sample "MV-Back-1" broken - no sample remains.

Client informed by:	Call	Email X	Voice Mail	Date: 11/4/14	Time: 1420
TSR Initials: TM	Client Contact: A.H.				

Login Instructions: Client informed.

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Alan Hopkins
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite 170
Houston, TX 77043

Report Summary

Tuesday November 11, 2014

Report Number: L731390

Samples Received: 11/04/14

Client Project: MT. VERNON

Description: Washington State

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BI0041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
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REPORT OF ANALYSIS

November 11, 2014

Alan Hopkins
Portnoy Environmental
1414 W. Sam Houston Pkwy. N., Suite
Houston, TX 77043

Date Received : November 04, 2014
Description : Washington State

Sample ID : MV-ROD

Collected By : Alan Hopkins
Collection Date : 11/03/14 00:00

ESC Sample # : L731390-01

Site ID : ROD

Project # : MT. VERNON

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	81.	10.	mg/kg	6010B	11/11/14	5
Cadmium	8.7	2.5	mg/kg	6010B	11/11/14	5
Chromium	98.	5.0	mg/kg	6010B	11/11/14	5
Lead	20.	2.5	mg/kg	6010B	11/11/14	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/14 10:02 Printed: 11/11/14 11:31
L731390-01 (ICP METALS) - Diluted due to color.



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary

SDG: L731390

Portnoy Environmental

Test: Trace Metals by Method 6010B
Project No: MT. VERNON
Project: Washington State
Collection Date: 11/3/2014
Analysis Date: 11/11/2014 4:49:00 AM
Instrument ID: ICP6
Sample Numbers: L731390-01

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG753195
Analyst: 428
Prep Date: 11/7/2014

Method Blank			
Analyte	CAS	RDL	Qualifier
Arsenic	7440-38-2	< 2.00	
Cadmium	7440-43-9	< 0.500	
Chromium	7440-47-3	< 1.00	
Lead	7439-92-1	< 0.500	



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Quality Control Summary

SDG: L731390

Portnoy Environmental

Test: Trace Metals by Method 6010B
Project No: MT. VERNON
Project: Washington State
Collection Date: 11/3/2014
Analysis Date: 11/11/2014 4:49:00 AM
Instrument ID: ICP6
Sample Numbers: L731390-01

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG753195
Analyst: 428
Prep Date: 11/7/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Arsenic	1	237	248.17	105	83.1 - 117	
Cadmium	1	191	205.40	108	83.2 - 117	
Chromium	1	128	139.83	109	81.3 - 118	
Lead	1	103	108.23	105	83.1 - 117	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Arsenic	1	237	251.19	106	83.1 - 117	
Cadmium	1	191	204.53	107	83.2 - 117	
Chromium	1	128	140.81	110	81.3 - 118	
Lead	1	103	108.26	105	83.1 - 117	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Arsenic	1	237	248.17	105	251.19	106	83.1 - 117	1	20	
Cadmium	1	191	205.40	108	204.53	107	83.2 - 117	0	20	
Chromium	1	128	139.83	109	140.81	110	81.3 - 118	1	20	
Lead	1	103	108.23	105	108.26	105	83.1 - 117	0	20	

Quality Control Summary

SDG: L731390

Portnoy Environmental

Test: Trace Metals by Method 6010B
Project No: MT. VERNON
Project: Washington State
Collection Date: 11/3/2014
Analysis Date: 11/11/2014 4:49:00 AM
Instrument ID: ICP6
Sample Numbers: L731390-01

Matrix: Soil - mg/kg
EPA ID: TN00003
Analytic Batch: WG753195
Analyst: 428
Prep Date: 11/7/2014

Serial Dilution

L732072-08

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Arsenic	5	9.2858	10.196	10	10	
Lead	5	165.77	187.68	13	10	O1

Matrix Spike / Matrix Spike Duplicate

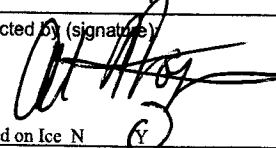
L732072-08

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Arsenic	1	100	9.2858	104.31	95	111.49	102	75 - 125		7	20	
Lead	1	100	165.77	142.89	0	142.66	0	75 - 125	J6	0	20	

Post Digest Spike

L732072-08

Analyte	Dil	Spike Value	Sample	Result	% Rec	Control Limits	Qualifier
Arsenic	1	99	9.2858	105.28	97	75-125	
Lead	1	99	165.77	257.90	93	75-125	

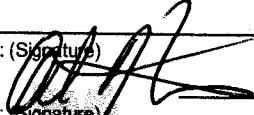
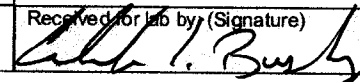
Portnoy Environmental 1414 W. Sam Houston Pkwy N. Suite 170 Houston, TX 77043				Alternate billing information: Aaron Galer Northwest Pipeline				Analysis/Container/Preservative				Chain of Custody Page 1 of 3 Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (615) 758-5858 Phone (800) 767-5859 FAX (615) 758-5859			
				Report to: NWPL Team											
				Email to: ahopkins@pei-tx.com											
Project Description: Mt. Vernon CS				City/State Collected: Mt. Vernon											
Phone: 713-805-2994 FAX: 832-295-6404		Client Project #: Mt. Vernon		ESC Key: PORTNOYENV-WAHG											
Collected by: Alan Hopkins		Site/Facility ID#: Rod		P.O.#:											
Collected by (signature): 		Rush? (Lab MUST Be Notified) ___ Same Day.....200% ___ Next Day.....100% ___ Two Day.....50%		Date Results Needed: Email? ___ No ☒ Yes FAX? ☒ No ___ Yes		No. of Cntrs		Arsenic Cadmium Lead Chromium				HOLD			
Packed on Ice N ☒												CoCode portenvtx (lab use only) Template/Prelogin Shipped Via:			
Sample ID		Comp/Grab	Matrix*	Depth	Date	Time								Remarks/Contaminant	Sample # (lab only)
MV-Rod		Grab	SS		11-3-14		1	☒	☒	☒	☒				L 731390-01
		Grab	SS												
		Grab	SS												
		Grab	SS												
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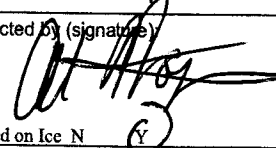
*Matrix: SS - Soil/Solid ^AGW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature) 	Date: 11-3-14	Time: 1630	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier		Condition: (lab use only)	
	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 202	TD	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 11/4/14	Time: 0900	pH Checked:	NCF:

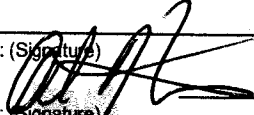
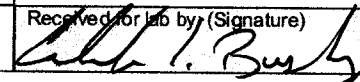
Portnoy Environmental 1414 W. Sam Houston Pkwy N. Suite 170 Houston, TX 77043				Alternate billing information: Aaron Galer Northwest Pipeline				Analysis/Container/Preservative				Chain of Custody Page 1 of 3 Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (615) 758-5858 Phone (800) 767-5859 FAX (615) 758-5859	
				Report to: NWPL Team									
				Email to: ahopkins@pei-tx.com									
Project Description: Mt. Vernon CS				City/State Collected: Mt. Vernon									
Phone: 713-805-2994 FAX: 832-295-6404		Client Project #: Mt. Vernon		ESC Key: PORTNOYENV-WAHG									
Collected by: Alan Hopkins		Site/Facility ID#: Rod		P.O.#:									
Collected by (signature): 		Rush? (Lab MUST Be Notified) ___ Same Day.....200% ___ Next Day.....100% ___ Two Day.....50%		Date Results Needed: Email? ___ No ☒ Yes FAX? ☒ No ___ Yes		No. of Cntrs		Arsenic Cadmium Lead Chromium				HOLD	
Packed on Ice N ☒												CoCode portenvtx (lab use only) Template/Prelogin Shipped Via:	
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time							Remarks/Contaminant	Sample # (lab only)
MV-Rod	Grab	SS		11-3-14		1		~~X~~ ~~X~~ ~~X~~ ~~X~~				L	731390-01
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											
	Grab	SS											

*Matrix: SS - Soil/Solid **A** GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature) 	Date: 11-3-14	Time: 1630	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier		Condition: (lab use only)	
	Date:	Time:	Received by: (Signature)	Temp: Amb.	Bottles Received: 202	TD	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 11/4/14	Time: 0900	pH Checked:	NCF:

FRIEDMAN & BRUYA, INC.

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
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www.friedmanandbruya.com

November 4, 2014

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 410500

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on October 28, 2014 from the 2014 Mt Vernon, F&BI 410500 project. There are 83 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moseley, Cynthia Moon
PRT1104R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 28, 2014 by Friedman & Bruya, Inc. from the Portnoy Environmental 2014 Mt Vernon, F&BI 410500 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Portnoy Environmental</u>
410500 -01	MV-CA-O12:12
410500 -02	MV-CA-O13:12
410500 -03	MV-CA-O14:12
410500 -04	MV-CA-O15:12
410500 -05	MV-CA-P11:12
410500 -06	MV-CA-P13:12
410500 -07	MV-CA-P14:12
410500 -08	MV-CA-P15:12
410500 -09	MV-CA-Q11:12
410500 -10	MV-CA-Q12:36
410500 -11	MV-CA-Q13:12
410500 -12	MV-CA-Q14:12
410500 -13	MV-CA-Q15:24
410500 -14	MV-CA-R10:12
410500 -15	MV-CA-R11:12
410500 -16	MV-CA-R12:12
410500 -17	MV-CA-R13:12
410500 -18	MV-CA-R14:12
410500 -19	MV-CA-R15:36
410500 -20	MV-CA-S10:12
410500 -21	MV-CA-S11:12
410500 -22	MV-CA-T10:6
410500 -23	MV-CA-T11:12
410500 -24	MV-CA-N16:36
410500 -25	MV-CA-V20:18
410500 -26	MV-CA-Y19:18
410500 -27	MV-CA-U20:18
410500 -28	MV-CA-U19:18
410500 -29	MV-CA-Z17:6+36
410500 -30	MV-CA-W19:24+12
410500 -31	MV-CA-U13:12
410500 -32	MV-CA-V16:6+24
410500 -33	MV-CA-U18:6+24
410500 -34	MV-CA-T16:6
410500 -35	MV-CA-N15:12
410500 -36	MV-CA-M13:6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

<u>Laboratory ID</u>	<u>Portnoy Environmental</u>
410500 -37	MV-CA-N13:36
410500 -38	MV-CA-N14:12
410500 -39	MV-CA-T14:24
410500 -40	MV-CA-M15:6
410500 -41	MV-CA-M14:12
410500 -42	MV-CA-M16:12
410500 -43	MV-CA-M15:12
410500 -44	MV-CA-T12:6
410500 -45	MV-CA-R15:24A
410500 -46	MV-CA-R15:18B
410500 -47	MV-CA-Q12:24A
410500 -48	MV-CA-Q12:24B
410500 -49	MV-CA-Q12:24C
410500 -50	MV-CA-Q12:24D
410500 -51	MV-CA-N13:24A
410500 -52	MV-CA-N13:24B
410500 -53	MV-CA-N13:24C
410500 -54	MV-CA-N13:24D
410500 -55	MV-CA-N16:24A
410500 -56	MV-CA-N16:24B
410500 -57	MV-CA-N16:24C
410500 -58	MV-CA-N16:18D
410500 -59	MV-CA-Q15:24A
410500 -60	MV-CA-Q15:24B
410500 -61	MV-CA-Q15:18C
410500 -62	MV-CA-Q15:24D

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-O12:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-01
Date Analyzed:	10/29/14	Data File:	410500-01.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	11.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-O13:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-02
Date Analyzed:	10/29/14	Data File:	410500-02.037
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	85	60	125
Holmium	88	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.44
Lead	5.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-O14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-03
Date Analyzed:	10/29/14	Data File:	410500-03.038
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	82	60	125
Holmium	87	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.61
Lead	7.95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-O15:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-04
Date Analyzed:	10/29/14	Data File:	410500-04.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	81	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.99
Lead	6.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-P11:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-05
Date Analyzed:	10/29/14	Data File:	410500-05.041
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	80	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	4.61

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-P13:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-06
Date Analyzed:	10/29/14	Data File:	410500-06.043
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	78	60	125
Holmium	82	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.54
Lead	7.65

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-P14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-07
Date Analyzed:	10/29/14	Data File:	410500-07.044
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	79	60	125
Holmium	82	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.32
Lead	7.11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-P15:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-08
Date Analyzed:	10/29/14	Data File:	410500-08.045
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	79	60	125
Holmium	82	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.78
Lead	7.95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q11:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-09
Date Analyzed:	10/29/14	Data File:	410500-09.046
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	82	60	125
Holmium	82	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	69.8
Lead	51.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q12:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-10
Date Analyzed:	10/29/14	Data File:	410500-10.047
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	77	60	125
Holmium	83	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.36
Lead	6.76

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q13:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-11
Date Analyzed:	10/29/14	Data File:	410500-11.048
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	76	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	10.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-12
Date Analyzed:	10/29/14	Data File:	410500-12.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	77	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	5.98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q15:24	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-13
Date Analyzed:	10/29/14	Data File:	410500-13.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	98	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R10:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-14
Date Analyzed:	10/29/14	Data File:	410500-14.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	75	60	125

Analyte:	Concentration mg/kg (ppm)

Arsenic	3.87

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R11:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-15
Date Analyzed:	10/29/14	Data File:	410500-15.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Arsenic	3.56

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R12:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-16
Date Analyzed:	10/29/14	Data File:	410500-16.053
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	93	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.71
Lead	6.73

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R13:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-17
Date Analyzed:	10/29/14	Data File:	410500-17.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	93	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.48
Lead	7.50

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-18
Date Analyzed:	10/29/14	Data File:	410500-18.055
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	90	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	3.96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-R15:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-19
Date Analyzed:	10/29/14	Data File:	410500-19.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	90	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	3.92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-S10:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-20
Date Analyzed:	10/29/14	Data File:	410500-20.057
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	91	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	5.30

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-S11:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-21
Date Analyzed:	10/30/14	Data File:	410500-21.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	5.83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T10:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-22
Date Analyzed:	10/30/14	Data File:	410500-22.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	106	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	93.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T11:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-23
Date Analyzed:	10/30/14	Data File:	410500-23.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	94	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	5.96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N16:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-24
Date Analyzed:	10/30/14	Data File:	410500-24.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	93	60	125
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.35
Lead	8.62

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-V20:18	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-25
Date Analyzed:	10/30/14	Data File:	410500-25.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	95	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	11.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Y19:18	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-26
Date Analyzed:	10/30/14	Data File:	410500-26.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	91	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Arsenic	13.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-U20:18	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-27
Date Analyzed:	10/30/14	Data File:	410500-27.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	93	60	125

Analyte:	Concentration mg/kg (ppm)

Arsenic	8.88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-U19:18	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-28
Date Analyzed:	10/30/14	Data File:	410500-28.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	91	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	9.58

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Z17:6+36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-29
Date Analyzed:	10/30/14	Data File:	410500-29.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	95	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	44.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-W19:24+12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-30
Date Analyzed:	10/30/14	Data File:	410500-30.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	92	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	8.81

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-U13:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-31
Date Analyzed:	10/30/14	Data File:	410500-31.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	96	60	125

Analyte:	Concentration mg/kg (ppm)

Arsenic	51.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-V16:6+24	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-32
Date Analyzed:	10/30/14	Data File:	410500-32.025
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	96	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	41.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-U18:6+24	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-33
Date Analyzed:	10/30/14	Data File:	410500-33.026
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	92	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	17.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T16:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-34
Date Analyzed:	10/30/14	Data File:	410500-34.027
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	4.74

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N15:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-35
Date Analyzed:	10/30/14	Data File:	410500-35.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	94	60	125
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	28.0
Lead	27.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M13:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-36
Date Analyzed:	10/30/14	Data File:	410500-36.030
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	109	60	125
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	140
Lead	129

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-37
Date Analyzed:	10/30/14	Data File:	410500-37.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	91	60	125
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.24
Lead	9.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-38
Date Analyzed:	10/30/14	Data File:	410500-38.032
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	97	60	125
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	63.0
Lead	53.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T14:24	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-39
Date Analyzed:	10/30/14	Data File:	410500-39.033
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	90	60	125
Holmium	101	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.45
Lead	8.82

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M15:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	410500-40
Date Analyzed:	10/30/14	Data File:	410500-40.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	89	60	125
Holmium	88	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	96.6
Lead	76.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M14:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-41
Date Analyzed:	10/30/14	Data File:	410500-41.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	88	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	38.7
Lead	36.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M16:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-42
Date Analyzed:	10/30/14	Data File:	410500-42.041
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	104	60	125

Analyte:	Concentration mg/kg (ppm)

Arsenic	139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M15:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-43
Date Analyzed:	10/30/14	Data File:	410500-43.042
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	90	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	18.3
Lead	19.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T12:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-44
Date Analyzed:	10/30/14	Data File:	410500-44.043
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	106	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q12:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-47
Date Analyzed:	10/30/14	Data File:	410500-47.046
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	88	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.95
Lead	7.40

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q12:24B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-48
Date Analyzed:	10/30/14	Data File:	410500-48.047
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	90	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.48
Lead	11.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q12:24C	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-49
Date Analyzed:	10/30/14	Data File:	410500-49.048
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	87	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.28
Lead	8.13

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q12:24D	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-50
Date Analyzed:	10/30/14	Data File:	410500-50.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	91	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	15.1
Lead	15.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-51
Date Analyzed:	10/30/14	Data File:	410500-51.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	89	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.01
Lead	5.94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-52
Date Analyzed:	10/30/14	Data File:	410500-52.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	94	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	54.7
Lead	49.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24C	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-53
Date Analyzed:	10/30/14	Data File:	410500-53.053
Matrix:	Soil	Instrument:	ICP MS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	81	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.91
Lead	9.96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24D	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-54
Date Analyzed:	10/30/14	Data File:	410500-54.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	103	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	118
Lead	111

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N16:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-55
Date Analyzed:	10/30/14	Data File:	410500-55.055
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	89	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	13.5
Lead	13.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N16:24B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-56
Date Analyzed:	10/30/14	Data File:	410500-56.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	87	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.3
Lead	13.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N16:24C	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-57
Date Analyzed:	10/30/14	Data File:	410500-57.057
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	89	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	31.4
Lead	26.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N16:18D	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-58
Date Analyzed:	10/30/14	Data File:	410500-58.058
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	88	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	23.5
Lead	20.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q15:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-59
Date Analyzed:	10/30/14	Data File:	410500-59.059
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	87	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.31
Lead	6.17
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q15:24B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-60
Date Analyzed:	10/30/14	Data File:	410500-60.036
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	87	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.17
Lead	8.75
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q15:18C	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-61
Date Analyzed:	10/30/14	Data File:	410500-61.060
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	87	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.04
Lead	8.11
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q15:24D	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	410500-62
Date Analyzed:	10/30/14	Data File:	410500-62.061
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	89	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.03
Lead	6.99
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	I4-681 mb
Date Analyzed:	10/29/14	Data File:	I4-681 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	94	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/29/14	Lab ID:	I4-685 mb
Date Analyzed:	10/30/14	Data File:	I4-685 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	96	60	125
Holmium	102	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	I4-688 mb
Date Analyzed:	10/30/14	Data File:	I4-688 mb.034
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	88	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/30/14	Lab ID:	I4-689 mb
Date Analyzed:	10/30/14	Data File:	I4-689 mb.066
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	91	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-R15:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-19 1/5
Date Analyzed:	10/30/14	Data File:	04.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	333	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-N16:36	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-24 1/5
Date Analyzed:	10/30/14	Data File:	05.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	59	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-M15:6	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-40 1/50
Date Analyzed:	10/29/14	Data File:	11.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	90	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	0.40
Aroclor 1260	0.29

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-M15:12	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-43 1/5
Date Analyzed:	10/30/14	Data File:	06.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	81	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-R15:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-45 1/5
Date Analyzed:	10/30/14	Data File:	07.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-R15:18B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-46 1/5
Date Analyzed:	10/30/14	Data File:	08.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	76	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-N16:24A	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-55 1/5
Date Analyzed:	10/30/14	Data File:	09.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	65	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-N16:24B	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-56 1/5
Date Analyzed:	10/30/14	Data File:	10.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	70	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-N16:24C	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-57 1/5
Date Analyzed:	10/30/14	Data File:	11.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-N16:18D	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	410500-58 1/5
Date Analyzed:	10/30/14	Data File:	12.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	59	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410500
Date Extracted:	10/28/14	Lab ID:	04-2182 mb2 1/5
Date Analyzed:	10/29/14	Data File:	07.D\ ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	81	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410500

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

Laboratory Code: 410500-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	9.99	96 b	83 b	70-118	15 b
Lead	mg/kg (ppm)	50	8.81	99	95	59-148	4
Mercury	mg/kg (ppm)	10	<1	96	93	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	83-113
Lead	mg/kg (ppm)	50	104	80-120
Mercury	mg/kg (ppm)	10	93	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410500

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

Laboratory Code: 410500-40 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	86.9	0 b	0 b	70-118	0 b
Lead	mg/kg (ppm)	50	68.9	80 b	44 b	59-148	58 b
Mercury	mg/kg (ppm)	10	<1	107	98	50-150	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	83-113
Lead	mg/kg (ppm)	50	106	80-120
Mercury	mg/kg (ppm)	10	98	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410500

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

Laboratory Code: 410500-60 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	4.63	123 b	93 b	70-118	28 b
Lead	mg/kg (ppm)	50	6.56	112	106	59-148	6
Mercury	mg/kg (ppm)	10	<1	102	102	50-150	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	103	83-113
Lead	mg/kg (ppm)	50	106	80-120
Mercury	mg/kg (ppm)	10	100	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410500

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

Laboratory Code: 410499-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	45.1	81 b	144 b	70-118	56 b
Lead	mg/kg (ppm)	50	449	0 b	0 b	59-148	0 b
Mercury	mg/kg (ppm)	10	<1	97	98	50-150	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	83-113
Lead	mg/kg (ppm)	50	111	80-120
Mercury	mg/kg (ppm)	10	104	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410500

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES FOR
POLYCHLORINATED BIPHENYLS AS
AROCOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 410380-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	0.39	80 b	50-150
Aroclor 1260	mg/kg (ppm)	0.8	0.98	152 b	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	109	113	70-130	4
Aroclor 1260	mg/kg (ppm)	0.8	110	114	70-130	4

FRIEDMAN & BRUYA, INC.

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.

410500

SAMPLE CHAIN OF CUSTODY

ME 10/28/14

Page # 1 of 7

Send Report To Alan HopkinsCompany PEIAddress 1414 W Sam Houston Pkwy N Suite 170City, State, ZIP Houston, TX 77043Phone # 713-805-2994 Fax # _____

Email Address _____

SAMPLERS (signature) PROJECT NAME/NO. 2014 Mt. Vernon

PO # _____

PROJECT ADDRESS _____

• ELECTRONIC DATA REQUESTED

TURNAROUND TIME

- Standard Turnaround
- RUSH 1/20/14
- Rush charges authorized by: 

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions

Samples Received at _____ °C

ANALYSES REQUESTED																
Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	ARSENIC	LEAD	PCBs	MERCURY	Notes
MV-CA-012:12	-01	10/27/14		SOIL	1							X	X	X		
MV-CA-013:12	-02				1							X	X	X		
MV-CA-014:12	03				1							X	X	X		
MV-CA-015:12	04				1							X	X	X		
MV-CA-P11:12	05				1							X	X	X		
MV-CA-P3:12	06				1							X	X	X		
MV-CA-P14:12	07				1							X	X	X		
MV-CA-P15:12	08				1							X	X	X		
MV-CA-Q11:12	-09				1							X	X	X		
MV-CA-Q12:36	-10				1							X	X	X		

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COG\COG.DOC

SIGNATURE

Relinquished by: 

PRINT NAME

COMPANY

DATE

TIME

Received by: 

PRINT NAME

COMPANY

DATE

TIME

Received by: _____

PRINT NAME

COMPANY

DATE

TIME

Received by: _____

PRINT NAME

COMPANY

DATE

TIME

Samples received at _____ °C

410500

SAMPLE CHAIN OF CUSTODY ME 10/28/14

823

Page # 2 of 7

Send Report To Alan Hopkins

Company PEI

Address 1414 W Sam Houston Pkwy N Suite 170

City, State, ZIP Houston, TX 77043

Phone # 713-805-2994 Fax #

Email Address

SAMPLERS (signature)

PROJECT NAME/NO.

2014 Mt. Vernon

PO #

PROJECT ADDRESS

• ELECTRONIC DATA REQUESTED

TURNAROUND TIME

• Standard Turnaround
• RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

• Dispose after 30 days
• Return samples
• Will call with instructions

Samples Received at ____ °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED					Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	
MV-CA-Q13:12	11	10/27/14		SOIL	1						
MV-CA-Q14:12	12				1						
MV-CA-Q15:24	13				1						
MV-CA-R10:12	14				1						
MV-CA-R11:12	15				1						
MV-CA-R12:12	16				1						
MV-CA-R13:12	17				1						
MV-CA-R14:12	18				1						
MV-CA-R15:36	19				1						
MV-CA-S10:12	20				1						

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Alan Hopkins

PEI

10-27-14

1630

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COCC\COCC.DOC

Received by:

Alan Hopkins

FE & BI

10/28/14

1102

Received by:

Samples received at ____ °C

410500

SAMPLE CHAIN OF CUSTODY

ME 10/28/14

Send Report To

Alan Hopkins

Company PEI

Address 1414 W Sam Houston Pkwy N Suite 170

City, State, ZIP Houston, TX 77043

Phone # 713-805-2994 Fax #

Email Address

SAMPLERS (signature)

PROJECT NAME/NO.

2014 Mt. Vernon

PO #

PROJECT ADDRESS

• ELECTRONIC DATA REQUESTED

Page #

of

7

TURNAROUND TIME

- Standard Turnaround
- RUSH *fast*
- Rush charges authorized by: *[Signature]*

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions

Samples Received at ____ °C

ANALYSES REQUESTED

 TPH-Diesel
 TPH-Gasoline
 BTEX by 8021B
 VOCs by 8260
 SVOCs by 8270

HFS

 ARSENIC
 LEAD
 PCBs
 MERCURY

Notes

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	ARSENIC	LEAD	PCBs	MERCURY	Notes
MV-CA-W19:24+12	30	10/27/14		SOIL	1							X				
MV-CA-U13:12	31				1							X				
MV-CA-V16:6+24	32				1							X				
MV-CA-U18:6+24	33				1							X				
MV-CA-T16:6	34				1							X				
MV-CA-N15:12	35				1							X				
MV-CA-M13:6	36				1							X				
MV-CA-N13:36	37				1							X				
MV-CA-N14:12	38				1							X				
MV-CA-T14:24	39				1							X				

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Alan Hopkins

PEI

10-27-14

1630

Received by:

Alan Hopkins

F&S

10/28/14

1102

Relinquished by:

Alan Hopkins

F&S

10/28/14

1102

Fax (206) 283-5044

FORMS\COO\COO.COC

410500

SAMPLE CHAIN OF CUSTODY

ME 10/25/14

273

Send Report To Alan HopkinsCompany PEIAddress 1414 W Sam Houston Pkwy N Suite 170City, State, ZIP Houston, TX 77043Phone # 713-805-2994 Fax # _____

Email Address _____

SAMPLERS (signature) [Signature]

PO # _____

PROJECT NAME/NO. 2014 Mt. Vernon

PROJECT ADDRESS _____

• ELECTRONIC DATA REQUESTED

Page # 5 of 7

TURNAROUND TIME

• Standard Turnaround

• RUSH PEI/DAVRush charges authorized by: [Signature]

SAMPLE DISPOSAL

• Dispose after 30 days

• Return samples

• Will call with instructions

Samples Received at _____ °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED							Notes		
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	ARSENIC		LEAD	PCBS
MV-CA-M15:6	40	10/27/14		SOIL	2							X	X	X	
MV-CA-M14:12	41				1							X	X		
MV-CA-M16:12	42				1							X	X		
MV-CA-M15:12	43				2							X	X	X	
MV-CA-T12:6	44				1							X	X		
MV-CA-R15:24A	45				1							X	X		
MV-CA-R15:18B	46				1									X	
MV-CA-Q12:24A	47				1							X	X		
MV-CA-Q12:24B	48				1							X	X		
MV-CA-Q12:24C	49				1							X	X		

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: [Signature]Received by: [Signature]

Alan Hopkins

Relinquished by: [Signature]Received by: [Signature]

Nhan Phan

PEI

10-27-14 1630

Received by: _____

Received by: _____

Samples received at _____ °C

410500

SAMPLE CHAIN OF CUSTODY

ME 10/28/14

673

Send Report To Alan HopkinsCompany PEIAddress 1414 W Sam Houston Pkwy N Suite 170City, State, ZIP Houston, TX 77043Phone # 713-805-2994 Fax # _____

Email Address _____

SAMPLERS (signature) PROJECT NAME/NO. 2014 Mt. Vernon

PO # _____

PROJECT ADDRESS _____

• ELECTRONIC DATA REQUESTED

Page # 6 of 7

TURNAROUND TIME

• Standard Turnaround

• RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

• Dispose after 30 days

• Return samples

• Will call with instructions

Samples Received at _____ °C

ANALYSES REQUESTED

TPH-Diesel
TPH-Gasoline
BTEX by 8021B
VOCs by 8260
SVOCs by 8270

HFS

ARSENIC
LEAD
PCBs
MERCURY

Notes

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	ARSENIC	LEAD	PCBs	MERCURY	Notes
MV-CA-Q12:24D	520	10/27/14		SOIL	1							X	X			
MV-CA-N13:24A	521				1							X	X			
MV-CA-N13:24B	522				1							X	X			
MV-CA-N13:24C	523				1							X	X			
MV-CA-N13:24D	524				1							X	X			
MV-CA-N16:24A	525				2							X	X			
MV-CA-N16:24B	526				2							X	X			
MV-CA-N16:24C	527				2							X	X			
MV-CA-N16:18D	528				2							X	X			
MV-CA-Q15:24A	529				1							X	X			

SIGNATURE

Relinquished by: 

PRINT NAME

Alan Hopkins

COMPANY

PEI

DATE

10-27-14

TIME

1630

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COCC\COCC.DOC

SIGNATURE

Relinquished by: 

PRINT NAME

Alan Hopkins

COMPANY

PEI

DATE

10-27-14

TIME

1630

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COCC\COCC.DOC

Received by:

Alan Hopkins

Phan Phan

FEBT

10/28/14

1102

Samples received at _____ °C

W- 10/28/14

✓✓BL

Alan Hopkins

Company	PEI
1. Aluminum	
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100. Aluminum	

Address 1414 W Sam Houston Pkwy N Suite 170

City, State, ZIP **Houston, TX 77043**

Phone # **713-805-2994** Fax #

Email Address

SAMPLE CHAIN OF CUSTODY

SAMPLERS (signature)	
PROJECT NAME/NO.	PO #
2014 Mt. Vernon	
PROJECT ADDRESS	
• ELECTRONIC DATA REQUESTED	

TURNAROUND TIME

- Standard Turnaround
- RUSH *4000 hr*

Rush charges authorized by: *[Signature]*

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions

Samples Received at ____ °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	ARSENIC	LEAD	PCB	MERCURY	
MV-CA-Q15:24B	60	10/27/14		SOIL	1							X	X	X		
MV-CA-Q15:18C	61				1							X	X	X		
MV-CA-Q15:24D	62				1							X	X	X		

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COCC\COCC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Alan Hopkins	PEI	10-27-14	1630
Received by: 	Brian Pham	FEBI	10/28/14	1102
Relinquished by:				
Received by:		Samuel MacLeod	30	

FRIEDMAN & BRUYA, INC.

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

November 4, 2014

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 410501

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on October 28, 2014 from the 2014 Mt Vernon, F&BI 410501 project. There are 5 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moselely, Cynthia Moon
PRT1104R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 28, 2014 by Friedman & Bruya, Inc. from the Portnoy Environmental 2014 Mt Vernon, F&BI 410501 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
410501 -01

Portnoy Environmental
MM-Gravel

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MM-Gravel	Client:	Portnoy Environmental
Date Received:	10/28/14	Project:	2014 Mt Vernon, F&BI 410501
Date Extracted:	10/30/14	Lab ID:	410501-01
Date Analyzed:	10/30/14	Data File:	410501-01.071
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	85	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	2.67
Arsenic	3.18
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410501
Date Extracted:	10/30/14	Lab ID:	I4-689 mb
Date Analyzed:	10/30/14	Data File:	I4-689 mb.066
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	91	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/28/14

Project: 2014 Mt Vernon, F&BI 410501

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

Laboratory Code: 410499-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	8.60	81	79	57-128	2
Arsenic	mg/kg (ppm)	10	45.1	81 b	144 b	70-118	56 b
Lead	mg/kg (ppm)	50	449	0 b	0 b	59-148	0 b
Mercury	mg/kg (ppm)	10	<1	97	98	50-150	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	103	78-121
Arsenic	mg/kg (ppm)	10	102	83-113
Lead	mg/kg (ppm)	50	111	80-120
Mercury	mg/kg (ppm)	10	104	70-130

FRIEDMAN & BRUYA, INC.

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.

FRIEDMAN & BRUYA, INC.

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

November 4, 2014

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 410541

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on October 30, 2014 from the 2014 Mt Vernon, F&BI 410541 project. There are 5 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moseley, Cynthia Moon
PRT1104R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 30, 2014 by Friedman & Bruya, Inc. from the Portnoy Environmental 2014 Mt Vernon, F&BI 410541 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
410541-01

Portnoy Environmental
MV-CA-S14:12

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-S14:12	Client:	Portnoy Environmental
Date Received:	10/30/14	Project:	2014 Mt Vernon, F&BI 410541
Date Extracted:	10/30/14	Lab ID:	410541-01
Date Analyzed:	10/30/14	Data File:	410541-01.072
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	90	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	3.43

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410541
Date Extracted:	10/30/14	Lab ID:	I4-689 mb
Date Analyzed:	10/30/14	Data File:	I4-689 mb.066
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	91	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/30/14

Project: 2014 Mt Vernon, F&BI 410541

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

Laboratory Code: 410499-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	45.1	81 b	144 b	70-118	56 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	83-113

FRIEDMAN & BRUYA, INC.

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.

全

Email Address

TURNAROUND TIME

- Standard Turnaround
- RUSH Monday 4-3

Rush charges authorized by: [Signature]

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions

Samples Received at ____ °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Alan Hopkins	PEI	10-29-14	1620
Received by: 	Dd	FEET	10-29-14	1020
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

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

November 4, 2014

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 410542

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on October 30, 2014 from the 2014 Mt Vernon, F&BI 410542 project. There are 8 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moseley, Cynthia Moon
PRT1104R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 30, 2014 by Friedman & Bruya, Inc. from the Portnoy Environmental 2014 Mt Vernon, F&BI 410542 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
410542-01

Portnoy Environmental
MV-CA-WATER

The dissolved metals fraction was filtered at Friedman and Bruya on October 31, 2014. The data were flagged accordingly.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-WATER	Client:	Portnoy Environmental
Date Received:	10/30/14	Project:	2014 Mt Vernon, F&BI 410542
Date Extracted:	10/31/14	Lab ID:	410542-01
Date Analyzed:	11/03/14	Data File:	410542-01.016
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125
Indium	92	60	125
Holmium	95	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	1.08
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410542
Date Extracted:	10/31/14	Lab ID:	I4-695 mb
Date Analyzed:	11/03/14	Data File:	I4-695 mb.010
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	96	60	125
Holmium	99	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MV-CA-WATER f	Client:	Portnoy Environmental
Date Received:	10/30/14	Project:	2014 Mt Vernon, F&BI 410542
Date Extracted:	10/30/14	Lab ID:	410542-01
Date Analyzed:	10/31/14	Data File:	410542-01.015
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	97	60	125
Holmium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 410542
Date Extracted:	10/30/14	Lab ID:	I4-690 mb
Date Analyzed:	10/31/14	Data File:	I4-690 mb.013
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	96	60	125
Holmium	99	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/30/14

Project: 2014 Mt Vernon, F&BI 410542

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

Laboratory Code: 410550-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	ug/L (ppb)	20	<1	100	100	64-132	0
Arsenic	ug/L (ppb)	10	<1	97	94	60-150	3
Lead	ug/L (ppb)	10	<1	102	101	79-121	1
Mercury	ug/L (ppb)	10	<1	95	94	50-150	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	101	80-119
Arsenic	ug/L (ppb)	10	97	80-111
Lead	ug/L (ppb)	10	101	83-115
Mercury	ug/L (ppb)	10	98	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/04/14

Date Received: 10/30/14

Project: 2014 Mt Vernon, F&BI 410542

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

Laboratory Code: 410542-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	ug/L (ppb)	20	<1	114	111	64-132	3
Arsenic	ug/L (ppb)	10	<1	101	98	60-150	3
Lead	ug/L (ppb)	10	<1	111	111	79-121	0
Mercury	ug/L (ppb)	10	<1	104	107	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	108	80-119
Arsenic	ug/L (ppb)	10	98	80-111
Lead	ug/L (ppb)	10	105	83-115
Mercury	ug/L (ppb)	10	99	70-130

FRIEDMAN & BRUYA, INC.

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.

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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.

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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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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fbi@isomedia.com
www.friedmanandbruya.com

October 18, 2016

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 411018

Dear Mr. Hopkins:

Included is the amended report from the testing of material submitted on November 4, 2014 from the 2014 Mt Vernon, F&BI 411018 project. Per your request, the sample ID MV-CA-M16:8 has been amended to MV-CA-M16:18.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moseley, Cynthia Moon
PRT1107R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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fbi@isomedia.com
www.friedmanandbruya.com

November 7, 2014

Alan Hopkins, Project Manager
Portnoy Environmental
1414 W Sam Houston Pkwy N, Suite 170
Houston, TX 77043

RE: 2014 Mt Vernon, F&BI 411018

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on November 4, 2014 from the 2014 Mt Vernon, F&BI 411018 project. There are 17 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Eric Koltes, Tim Jenkins, Clint Moseley, Cynthia Moon
PRT1107R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 4, 2014 by Friedman & Bruya, Inc. from the Portnoy Environmental 2014 Mt Vernon, F&BI 411018 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Portnoy Environmental</u>
411018 -01	MV-CA-N14:18
411018 -02	MV-CA-U13:12+24
411018 -03	MV-CA-T12:6+24
411018 -04	MV-CA-M13:6+24
411018 -05	MV-CA-T10:6+24
411018 -06	MV-CA-Q11:18
411018 -07	MV-CA-M15:6+12
411018 -08	MV-CA-M16:18
411018 -09	MV-CA-N13:24B+12
411018 -10	MV-CA-N13:24D+12

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N14:18	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-01
Date Analyzed:	11/04/14	Data File:	411018-01.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Arsenic	6.45

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-U13:12+24	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-02
Date Analyzed:	11/04/14	Data File:	411018-02.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	92	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	8.76

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T12:6+24	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-03
Date Analyzed:	11/04/14	Data File:	411018-03.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	92	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	11.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M13:6+24	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-04
Date Analyzed:	11/04/14	Data File:	411018-04.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	89	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	8.15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-T10:6+24	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-05
Date Analyzed:	11/04/14	Data File:	411018-05.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	41.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-Q11:18	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-06
Date Analyzed:	11/04/14	Data File:	411018-06.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	89	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	9.28

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M15:6+12	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-07
Date Analyzed:	11/04/14	Data File:	411018-07.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	89	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	6.81

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-M16:18	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-08
Date Analyzed:	11/04/14	Data File:	411018-08.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	88	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	7.35

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24B+12	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-09
Date Analyzed:	11/04/14	Data File:	411018-09.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	86	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	7.15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MV-CA-N13:24D+12	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-10
Date Analyzed:	11/04/14	Data File:	411018-10.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	96	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	6.73

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	I4-699 mb
Date Analyzed:	11/04/14	Data File:	I4-699 mb.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Indium	94	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Arsenic	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MV-CA-M15:6+12	Client:	Portnoy Environmental
Date Received:	11/04/14	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	411018-07 1/50
Date Analyzed:	11/04/14	Data File:	08.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower	Upper
TCMX	65 d	Limit:	Limit:
		29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Portnoy Environmental
Date Received:	Not Applicable	Project:	2014 Mt Vernon, F&BI 411018
Date Extracted:	11/04/14	Lab ID:	04-2252 mb 1/5
Date Analyzed:	11/04/14	Data File:	07.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower	Upper
TCMX	81	Limit:	Limit:
		29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/07/14

Date Received: 11/04/14

Project: 2014 Mt Vernon, F&BI 411018

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

Laboratory Code: 411018-10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	4.91	90 b	88 b	70-118	2 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	103	83-113

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/07/14

Date Received: 11/04/14

Project: 2014 Mt Vernon, F&BI 411018

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES FOR
POLYCHLORINATED BIPHENYLS AS
AROCOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	113	107	70-130	5
Aroclor 1260	mg/kg (ppm)	0.8	119	115	70-130	3

FRIEDMAN & BRUYA, INC.

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.

Attachment C
Disposal Documentation



CHEMICAL WASTE MANAGEMENT OF THE NORTHWEST

17629 Cedar Springs Lane
Arlington, OR 97812

NORTHWEST PIPELINE CORP
WAD000642173
1539 LANGE RD
MOUNT VERNON WA 98273-9419

CERTIFICATE OF DISPOSAL

Chemical Waste Management of the Northwest, Inc., ORD089452353, has received the following waste material and certifies that the material has been landfilled in accordance with 40 CFR part 761 as it pertains to the land disposal of Polychlorinated Biphenyl contaminated materials.

GENERATOR:	NORTHWEST PIPELINE CORP	
MANIFEST #:	013468978JJK	
LINE ITEM:	9b.1	
PROFILE #:	OR324184	
CWM TRACKING ID:	437112-01	
DATE RECEIVED:	11/11/14	
DISPOSAL PROCESS(ES):	LANDFILL	
FINAL DISPOSAL LOCATION:	LANDFILL	14
DISPOSAL DATE:	11/11/14	
CONTAINER # & TYPE:	1 CM	

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Date

11/17/14

WTF

8,500

437112

CWMI

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number WA0000842173	2. Page 1 of 1	3. Emergency Response Phone (300) 424-9300	4. Manifest Tracking Number 013468978 JJK
5. Generator's Name and Mailing Address NORTHWEST PIPELINE CORP 1530 LANGE RD MOUNT VERNON WA 98273-9419					
Generator's Phone: (206) 388-2261					
6. Transporter 1 Company Name R TRANSPORT				U.S. EPA ID Number WAH000028338	
7. Transporter 2 Company Name UNION PACIFIC RAILROAD				U.S. EPA ID Number NED001792810	
8. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 17629 CEDAR SPRINGS LANE ARLINGTON OR 97812-9709				U.S. EPA ID Number ORD088452353	
Facility's Phone: (503) 454-2843					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity
	X	1. UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, II	001	CM	907 2,000 8-11-14
		2.			
		3.			
		4.			
14. Special Handling Instructions and Additional Information 1. OR324184- PCB CONTAMINATED SOILS (X002), ERG #171, RG = 454 KG (1LB) PCB OUT OF SERVICE DATE: <u>11-5-14</u> TYPE <u>WT</u> E/R/P= CHEMTREC (#CCN24117) UIMXIL 8577 953K					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Offeror's Printed/Typed Name ALAN HOPKINS FOR NWPL					
Signature <i>[Signature]</i>					
Month Day Year 11 5 14					
TRANSPORTER INTL	16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____				
	Transporter signature (for exports only): _____				
	17. Transporter Acknowledgment of Receipt of Materials				
TRANSPORTER	Transporter 1 Printed/Typed Name X Jesse BURT				
	Signature <i>[Signature]</i>				
	Month Day Year 11 5 14				
TRANSPORTER	Transporter 2 Printed/Typed Name Chris Cresp				
	Signature <i>[Signature]</i>				
	Month Day Year 11 5 14				
DESIGNATED FACILITY	18. Discrepancy				
	18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection Quantity and out of service date added per Alan Hopkins/Hopkins Portney Environmental 11-11-14				
	Manifest Reference Number: _____				
	18b. Alternate Facility (or Generator) Facility's Phone: _____ U.S. EPA ID Number: _____				
	Signature of Alternate Facility (or Generator): _____ Month Day Year: _____				
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) H132					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Sina Weiser					
Signature <i>[Signature]</i>					
Month Day Year 11 11 14					

Form Approved, OMB No. 2050-0039

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Original
Ticket# 230964

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/10/2014 Vehicle# 8510 Volume
Payment Type Credit Account Container 8510
Manual Ticket# 811988 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	
In	10/09/2014 08:47:19	Front Scale	SMastrio		Tare	35300 lb*
Out	10/10/2014 08:47:19		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	28800 lb
						14.40

Comments Rental 10/1-10/7 = 6 days
Dropped 10/1/14 w/8505

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		14.40	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				
3 DEL U RGC-DELIVERY 100		1	Each				
4 LINER RGC-LINER UN 100		1	Load				
5 RAIL U RGC-RAIL UN 100		1	Load				
6 RENT RGC DAILY-CAN 100		6	Each				

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Original
Ticket# 231005

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/13/2014 Vehicle# 8532 Volume
Payment Type Credit Account Container 8532
Manual Ticket# 812112 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	
In	10/10/2014 11:00:55	Front Scale	SMastrio		Tare	34900 lb*
Out	10/13/2014 11:00:55		SMastrio		Net	7780 lb*
			* Manual Weight		Tons	27120 lb

Comments Rental 10/7-10/8 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		13.56	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				
3 LINER RGC-LINER UN 100		1	Load				
4 RAIL U RGC-RAIL UN 100		1	Load				
5 RENT RGC DAILY-CAN 100		1	Each				

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Original
Ticket# 231348

Customer Name PORTNOY ENVIRONMENTAL INC FOR Carrier 8000
Ticket Date 10/14/2014 Vehicle# 8505
Payment Type Credit Account Container 8505
Original Ticket# 811898 Billing # 0001337
Billing Ticket# Manifest
Destination UP/R TRANSPORT PD 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

Volume

Time	Scale	Operator	Inbound	Gross	32160 lb*
10/08/2014 11:19:18	Front Scale	SMastrio		Tare	6500 lb*
at 10/14/2014 11:19:18		SMastrio		Net	25660 lb
		* Manual Weight		Tons	12.83

Comments Rental 10/1-10/6 = 5 days
Dropped w/8510

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
Daily Cover-PCS-To 100		12.83	Tons				WA-MT VERN
LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
LINER RGC-LINER UN 100		1	Load				WA-MT VERN
RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
RENT RGC DAILY-CAN 100		5	Each				WA-MT VERN

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Original
Ticket# 231349

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/14/2014 Vehicle# 8514 Volume
Payment Type Credit Account Container 8514
Manual Ticket# 811989 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	33900 lb*
In	10/09/2014 11:20:12	Front Scale	SMastrio		Tare	7780 lb*
Out	10/14/2014 11:20:12		SMastrio		Net	26120 lb
			* Manual Weight		Tons	13.06

Comments Rental 10/6-10/7 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		13.06	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 231350

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/14/2014 Vehicle# 8538 Volume
Payment Type Credit Account Container 8538
Manual Ticket# 811990 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/09/2014 11:21:04	Front Scale	SMastrio		Tare	37100 lb*
Out	10/14/2014 11:21:04		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	30600 lb
Comments	No rental					

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		15.30	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN

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Original
Ticket# 231780

Customer Name PORTNOY ENVIRONMENTAL INC PDR Carrier 8000
Ticket Date 10/16/2014 Vehicle# 8572 Volume
Payment Type Credit Account Container 8572
Manual Ticket# 812113 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	40700 lb*
In	10/10/2014 08:05:03	Front Scale	SMastrio		Tare	6500 lb*
Out	10/16/2014 08:05:03		SMastrio		Net	34200 lb
			* Manual Weight		Tons	17.10

Comments Rental 10/7-10/8 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		17.10	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 232246

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 7000
Ticket Date 10/17/2014 Vehicle# 7451 Volume
Payment Type Credit Account Container 7451
Manual Ticket# 812189 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	39840 lb*
In	10/11/2014 15:10:40	Front Scale	SMastrio		Tare	7780 lb*
Out	10/17/2014 15:10:40		SMastrio		Net	32060 lb
			* Manual Weight		Tons	16.03

Comments Rental 10/8-10/9 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		16.03	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 233794

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/27/2014 Vehicle# 8528 Volume
Payment Type Credit Account Container 8528
Manual Ticket# 812910 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/24/2014 11:20:00	Front Scale	SMastrio		Tare	31200 lb*
Out	10/27/2014 11:20:00		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	24700 lb
						12.35

Comments Rental 10/22-10/23 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover -PCS-To 100		12.35	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 233795

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/27/2014 Vehicle# 8547 Volume
Payment Type Credit Account Container 8547
Manual Ticket# 812911 Billing # 0001337
Hauling Ticket# Manifest
Destination LP/R TRANSPORT PD 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	39160 lb*
In	10/24/2014 11:21:37	Front Scale	SMastrio		Tare	6500 lb*
Out	10/27/2014 11:21:37		SMastrio		Net	32660 lb
			* Manual Weight		Tons	16.33

Comments Rental 10/9-10/22 = 13 days

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		16.33	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		13	Each				WA-MT VERN

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Original
Ticket# 233796

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/27/2014 Vehicle# 8557 Volume
Payment Type Credit Account Container 8557
Manual Ticket# 812912 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109150WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	37500 lb*
In	10/24/2014 11:22:25	Front Scale	SMastrio		Tare	6500 lb*
Out	10/27/2014 11:22:25		SMastrio		Net	31100 lb
			* Manual Weight		Tons	15.55

Comments Rental 10/21-10/22 = 1 day

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		15.55	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 234056

Customer Name PORTNOY ENVIRONMENTAL INC PDR Carrier 8000
Ticket Date 10/28/2014 Vehicle# 8527 Volume
Payment Type Credit Account Container 8527
Manual Ticket# 812987 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	39200 lb*
In	10/25/2014 09:31:09	Front Scale	SMastrio		Tare	6500 lb*
Out	10/28/2014 09:31:09		SMastrio		Net	32700 lb
			* Manual Weight		Tons	16.35

Comments No Rental

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		16.35	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN

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Original
Ticket# 234057

Customer Name PORTNOY ENVIRONMENTAL INC PGR Carrier 8000
Ticket Date 10/28/2014 Vehicle# 8529 Volume
Payment Type Credit Account Container 8529
Manual Ticket# 813008 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	32200 lb*
In	10/27/2014 09:32:10	Front Scale	SMastrio		Tare	6500 lb*
Out	10/28/2014 09:32:10		SMastrio		Net	25700 lb
			* Manual Weight		Tons	12.85

Comments Rental 10/22-10/24 = 2 days

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		12.85	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		2	Each				WA-MT VERN

Columbia Ridge
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Original
Ticket# 234359

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 7000
Ticket Date 10/29/2014 Vehicle# 7128 Volume
Payment Type Credit Account Container 7128
Manual Ticket# 812909 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PD 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154)

	Time	Scale	Operator	Inbound	Gross	37160 lb*
In	10/24/2014 07:55:05	Front Scale	SMastrio		Tare	7780 lb*
Out	10/29/2014 07:55:05		SMastrio		Net	29380 lb
			* Manual Weight		Tons	14.69

Comments Rental 10/8-10/21 = 13 days

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		14.69	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				
3 LINER RGC-LINER UN 100		1	Load				
4 RAIL U RGC-RAIL UN 100		1	Load				
5 RENT RGC DAILY-CAN 100		13	Each				

Columbia Ridge
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Arlington, DR, 97812
Ph: (541) 454-2830

Original
Ticket# 234667

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/30/2014 Vehicle# 8516 Volume
Payment Type Credit Account Container 8516
Manual Ticket# 813109 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/29/2014 07:55:04	Front Scale	SMastrio		Tare	37020 lb*
Out	10/30/2014 07:55:04		SMastrio		Net	7780 lb*
			* Manual Weight		Tons	29240 lb
Comments	Rental 10/24-10/27 = 3 days					14.62

Product	LD%	Dty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		14.62	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		3	Each				WA-MT VERN

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Ph: (541) 454-2030

Original
Ticket# 234668

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/30/2014 Vehicle# 8556 Volume
Payment Type Credit Account Container 8556
Manual Ticket# 813110 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON OS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/29/2014 08:04:01	Front Scale	SMastrio		Tare	37900 lb*
Out	10/30/2014 08:04:01		SMastrio		Net	5500 lb*
			* Manual Weight		Tons	31400 lb
Comments	Rental 10/23-10/24 = 1 day					15.70

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		15.70	Tons				WA-MT VERN
2 LDC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		1	Each				WA-MT VERN

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Original
Ticket# 234669

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 10/30/2014 Vehicle# 8630 Volume
Payment Type Credit Account Container 0630
Manual Ticket# 813111 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PD 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	40000 lb*
In	10/29/2014 08:05:11	Front Scale	SMastrio		Tare	6500 lb*
Out	10/30/2014 08:05:11		SMastrio		Net	34300 lb
			* Manual Weight		Tons	17.15

Comments Rental 10/24-10/27 = 3 days

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		17.15	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		3	Each				WA-MT VERN

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Original
Ticket# 235683

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 11/05/2014 Vehicle# 8501 Volume
Payment Type Credit Account Container 8501
Manual Ticket# 813183 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/31/2014 11:51:15	Front Scale	SMastrio		Tare	35700 lb*
Out	11/05/2014 11:51:15		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	29200 lb
Comments	Rental 10/23-10/29 = 6 days					14.60

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		14.60	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		6	Each				WA-MT VERN

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Original
Ticket# 235539

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 11/04/2014 Vehicle# 8579 Volume
Payment Type Credit Account Container 8579
Manual Ticket# 813332 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PD 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	11/03/2014 07:57:04	Front Scale	SMastrio		Tare	34400 lb*
Out	11/04/2014 07:57:04		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	27900 lb
Comments	Rental 10/27-10/30 = 3 days					13.95

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		13.95	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		3	Each				WA-MT VERN

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Original
Ticket# 235538

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 11/04/2014 Vehicle# 8524 Volume
Payment Type Credit Account Container 8524
Manual Ticket# 813331 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	11/03/2014 07:56:15	Front Scale	SMastrio		Tare	16940 lb*
Out	11/04/2014 07:56:15		SMastrio		Net	7780 lb*
			* Manual Weight		Tons	9160 lb
Comments	Rental 10/29-10/31 = 2 days					4.58

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCB-To 100		4.58	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		2	Each				WA-MT VERN

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Original
Ticket# 235537

Customer Name PORTNOY ENVIRONMENTAL INC POR Carrier 8000
Ticket Date 11/04/2014 Vehicle# 8571 Volume
Payment Type Credit Account Container 8571
Manual Ticket# 813185 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/31/2014 07:55:32	Front Scale	SMastrip		Tare	18600 lb*
Out	11/04/2014 07:55:32		SMastrip		Net	6500 lb*
			* Manual Weight		Tons	12100 lb
Comments	Rental 10/27-10/30 = 3 days					6.05

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		6.05	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				WA-MT VERN
3 LINER RGC-LINER UN 100		1	Load				WA-MT VERN
4 RAIL U RGC-RAIL UN 100		1	Load				WA-MT VERN
5 RENT RGC DAILY-CAN 100		3	Each				WA-MT VERN

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Original
Ticket# 235536

Customer Name PORTNOY ENVIRONMENTAL INC PDR Carrier 8000
Ticket Date 11/04/2014 Vehicle# 8568 Volume
Payment Type Credit Account Container 8568
Manual Ticket# 813184 Billing # 0001337
Hauling Ticket# Manifest
Destination UP/R TRANSPORT PO 10179.10
Profile 109158WA (METALS IMPACTED NON HAZARDOUS SOIL)
Generator WA-WILLIAMS-NORTHWEST PIPELINE WILLIAMS-NORTHWEST PIPELINE MT VERNON CS (154

	Time	Scale	Operator	Inbound	Gross	
In	10/31/2014 07:54:26	Front Scale	SMastrio		Tare	31600 lb*
Out	11/04/2014 07:54:26		SMastrio		Net	6500 lb*
			* Manual Weight		Tons	25100 lb
Comments	Rental 10/27-10/29 = 2 days					12.55

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-To 100		12.55	Tons				WA-MT VERN
2 LOC U RGC-LOCAL TR 100		1	Load				
3 LINER RGC-LINER UN 100		1	Load				
4 RAIL U RGC-RAIL UN 100		1	Load				
5 RENT RGC DAILY-CAN 100		2	Each				