GeoDesign Inc

REPORT OF PRE-CONSTRUCTION SUBSURFACE INVESTIGATION

Hoyt Street Properties – Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

For
Hoyt Street Properties
December 2, 2016

GeoDesign Project: HoytStProp-7-01

GeoDesign Inc

December 2, 2016

Hoyt Street Properties
1022 NW Marshall Street, #270
Portland, OR 97209

Attention: Tiffany Sweitzer and Frank Harris

Report of Pre-Construction Subsurface Investigation
Hoyt Street Properties – Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon
GeoDesign Project: HoytStProp-7-01

GeoDesign, Inc. is pleased to submit this report summarizing the results of our pre-construction subsurface investigation completed for Block 29 located at the northeast corner of NW Savier Street and NW 14th Avenue in Portland, Oregon. Our services were performed in accordance with our proposal dated August 25, 2016.

We appreciate the opportunity to be of service to Hoyt Street Properties. Please contact us if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

Jason O'Donnell, R.G.
Principal Geologist

cc: Kevin Dana, Oregon Department of Environmental Quality (via email only)

JMZ:JSO:kt
Attachments
One copy submitted
Document ID: HoytStProp-7-01-120216-envr.docx

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1.0 INTRODUCTION

This report summarizes the results of a pre-construction subsurface investigation completed at Block 29 located at the northeastern corner of NW Savier Street and NW 14th Avenue in Portland, Oregon (project site). The project site includes the northwestern portion of Tax Lot 700 of Multnomah County Tax Map 1N1E28DD and encompasses approximately 0.5 acre of vacant land currently used for construction equipment staging. The project site is shown relative to surrounding physical features on Figure 1. The project site layout is shown on Figure 2. Acronyms and abbreviations used herein are defined at the end of this document.

2.0 BACKGROUND

Block 29 is located within the larger former Hoyt Street Railyard site, which is listed on the DEQ ECSI database (ECSI #1080). DEQ prepared a document titled *ROD Selected Remedial Action* for the former Hoyt Street Railyard in December 2000 that outlines redevelopment requirements and soil management options. A separate ECSI file for Block 29 will be opened and tracked separately by DEQ during development.

It is our understanding that development plans include construction of a five-story, steel-frame self-storage facility with a slab-on-grade foundation.

3.0 SCOPE OF SERVICES

The pre-construction subsurface investigation scope of services was intended to obtain sufficient soil chemical analytical data to adequately evaluate risk to future construction and excavation workers and make informed decisions regarding soil management and disposal options for the forthcoming site development. The completed scope of services included the following:

- Coordinated and managed the field investigation.
- Contacted the Oregon One-Call Utility Notification Center to mark the location of public utilities beneath the project site.
- Subcontracted Pacific NW Locating of Portland, Oregon, to evaluate proposed boring locations for the possible presence of unmarked underground utilities.
- Subcontracted ESN Northwest, Inc. of Olympia, Washington, to advance 16 direct-push borings (DP-1 through DP-16) to depths ranging between 8.0 and 20.0 feet BGS at the project site.
- Advanced two hand-augered borings (HA-1 and HA-2) on the western-most portion of the project site to depths up to 5 feet BGS using equipment owned and operated by GeoDesign.
- Continuously sampled soil from the borings for field screening and potential chemical testing.
- Screened the soil samples in the field using visual methods, headspace vapor screening methods using a hand-held PID, and water sheen testing.
- Monitored for the presence of methane in select boreholes using a Landtec GEM 2000+ gas monitor calibrated to methane.
- Sampled soil from one of two unlabeled, 55-gallon drums observed on the project site.

- Submitted up to two soil samples from each of the 18 borings and the soil sample obtained from the unlabeled drum to ESC Lab Sciences of Mt. Juliet, Tennessee, for one of more of the following analyses:
  - Diesel- and residual-range organics by Method NWTPH-Dx
  - RCRA 8 total metals by EPA Methods 6010B/7471A
  - TCLP lead by EPA Methods 1311/6010B
  - SVOCs by EPA Method 8270D-SIM
  - PCBs by EPA Method 8082
- Following completion of drilling, backfilled each boring with bentonite chips in accordance with Oregon Water Resources Department requirements.
- Placed all IDW into one 33-gallon drum that was left on site pending disposal.
- Summarized the results of the pre-construction subsurface investigation in this report.

4.0 FIELD ACTIVITIES

Field activities were completed between October 20 and November 15, 2016 and included collecting soil samples from 16 direct-push borings (DP-1 through DP-16) and two hand-augered borings (HA-1 and HA-2) completed to depths ranging between 2.5 and 20.0 feet BGS at the approximate locations shown on Figure 2. A sloped gravel stockpile, which varied in height from approximately 1 foot to 12 feet, was present on the approximate central portion of the project site during our subsurface explorations. Therefore direct-push borings DP-1, DP-2, DP-4, and DP-5 completed in this vicinity of the project site were advanced through the stockpile prior to reaching our proposed direct-push boring depth of 8 feet BGS. The explorations were completed to characterize soil to evaluate appropriate end-use and/or disposal during construction-related excavation. The direct-push explorations were completed using drilling equipment owned and operated by ESN Northwest, Inc. of Olympia, Washington. The hand-augered explorations were completed using equipment owned and operated by GeoDesign.

A GeoDesign representative observed the borings, collected soil samples from the explorations, and field screened soil samples collected from the explorations using visual examination, water sheen screening, and headspace vapor screening using a hand-held PID. Sheen, petroleum-like odors, and/or elevated PID readings were observed in soil at depths ranging between approximately 0 and 17 feet BGS in all of the borings. Field screening results for the soil samples collected from the explorations are shown on the exploration logs presented in Appendix A. A description of our field exploration program is also summarized in Appendix A.

4.1 SUBSURFACE CONDITIONS

In general, subsurface conditions encountered in the explorations include fill material ranging in thickness from 2.5 to 20 feet at the locations explored. The fill is highly variable, consisting of silt, sand, gravel, clay, organics, asphalt, brick debris, concrete debris, and deleterious material consisting of wood chips.

Groundwater was not encountered during the subsurface explorations.

4.2 SOIL SAMPLING

Two soil samples collected from each of the 16 direct-push borings, one soil sample collected from each of the 2 hand-augered borings, and one soil sample collected from one of the unlabeled drums located on site were submitted to ESC Lab Sciences for analysis of diesel- and residual-range organics by Method NWTPH-Dx, RCRA 8 total metals by EPA Methods 6010B/ 7471A, and SVOCs by EPA Method 8270D-SIM. In addition, a total of three soil samples collected from borings DP-4, DP-6, and DP-9 were submitted for analysis of PCBs by EPA Method 8082. Further, a total of 16 soil samples collected from borings DP-1, DP-4, DP-5, DP-6, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, DP-13, DP-15, and HA-1 were submitted for analysis of TCLP lead by EPA Methods 1311/6010B. Soil sample designations and sample depths are shown in Tables 1 through 4. The chemical analytical program details, laboratory reports, and chain-of-custody documentation are presented in Appendix B.

4.3 METHANE MONITORING

A 1.2- to 1.7-foot-thick layer of wood debris consisting of wood chips was observed beneath the northern portion of the project site at depths ranging between approximately 11.8 and 20 feet BGS. Based on the presence of wood debris, a GeoDesign representative monitored for the presence of methane in select boreholes during the explorations using a Landtec GEM 2000+ gas monitor calibrated to methane. Subsurface methane concentrations ranging from 0.0 to 37.2 pbv were recorded in borings DP-1, DP-5, DP-6, DP-8, DP-10, DP-11, DP-15, HA-1, and HA-2. Methane monitoring results from these explorations are shown on the exploration logs presented in Appendix A.

In order to comply with OAR 340-122-0040, removal or remedial actions need to be implemented to prevent concentrations of methane exceeding or likely to exceed 1.25 pbv in confined spaces and structures.

5.0 REGULATORY SCREENING LEVELS

A conceptual site model was not prepared for the project as part of this assessment. However, it is our understanding that earthwork related to site redevelopment will generally consist of mass excavation, shoring, and utility trenching during construction and that future project site use will be commercial use. Therefore, the following DEQ RBCs were selected for comparison of chemical analytical results obtained during this assessment:

- *Soil Ingestion, Dermal Contact, and Inhalation:* construction and excavation worker scenarios
- *Volatilization to Outdoor Air:* occupational scenario
- *Vapor Intrusion Into Buildings:* occupational scenario

The DEQ RBCs associated with the above exposure scenarios will be referred to as the "applicable DEQ RBCs" in this report. In an effort to characterize project site soil for disposal purposes, soil chemical analytical results were also compared to DEQ CFSLs, updated July 23, 2014. A comparison of the chemical analytical results to applicable regulatory criteria is shown in Tables 1 through 4 and discussed below. The laboratory reports are presented in Appendix B.

6.0 CHEMICAL ANALYTICAL RESULTS

6.1 SOIL SAMPLE ANALYTICAL RESULTS

6.1.1 Diesel- and Residual-Range Organics

Thirty-five soil samples were analyzed for diesel- and residual-range organics by Method NWTPH-Dx. Diesel-range organics were detected in soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-2(16.0-17.0), DP-3(5.5-7.0), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-5(8.0-9.5), DP-6(0.5-2.0), DP-6(5.0-6.0), DP-7(4.5-6.0), DP-8(4.5-6.0), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-10(4.0-5.5), DP-11(4.0-5.5), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(0.0-1.5), DP-14(0.5-2.0), DP-14(5.0-6.5), DP-15(4.5-6.0), and DP-16(4.0-5.5) at concentrations ranging between 6.50 and 434 mg/kg, which is less than all applicable DEQ RBCs. DEQ has not established CFSLs for diesel-range organics. In addition, diesel-range organics were detected in the soil sample (DRUM-1) obtained from the unlabeled drum located on site at a concentration of 9.59 mg/kg. Residual-range organics were detected in soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-2(11.0-12.5), DP-2(16.0-17.0), DP-3(0.0-1.5), DP-3(5.5-7.0), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-5(8.0-9.5), DP-6(0.5-2.0), DP-6(5.0-6.0), DP-7(1.0-2.5), DP-7(4.5-6.0), DP-8(1.0-2.5), DP-8(4.5-6.0), DP-9(0.0-1.5), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-10(4.0-5.5), DP-11(0.0-1.5), DP-11(4.0-5.5), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(0.0-1.5), DP-13(4.5-6.0), DP-14(0.5-2.0), DP-14(5.0-6.5), DP-15(1.0-2.5), DP-15(4.5-6.0), DP-16(4.0-5.5), and HA-1(1.0-2.0) at concentrations ranging between 17.2 and 2,160 mg/kg. DEQ has not established RBCs or CFSLs for residual-range organics. In addition, residual-range organics were detected in soil sample DRUM-1 at a concentration of 36.6 mg/kg. Diesel- or residual-range organics were not detected at concentrations greater than the analytical laboratory RDLs in the other soil samples analyzed.

6.1.2 RCRA 8 Metals

Thirty-five soil samples were analyzed for RCRA 8 metals by EPA Methods 6010B and 7471A. Results are as follows:

- Arsenic was detected in soil samples DP-13(4.5-6.0), DP-14(0.5-2.0), and HA-2(3.0-4.0) at concentrations ranging between of 9.71 and 13.5 mg/kg, which is greater than the DEQ CFSL. Arsenic was either not detected at a concentration greater than the analytical laboratory RDLs or was detected at concentrations less than all applicable screening levels in the remaining soil samples analyzed.
- Barium was detected at concentrations less than all applicable screening levels in the soil samples analyzed.
- Cadmium was detected in soil samples DP-1(12.0-13.5), DP-4(9.0-10.5), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-11(0.0-1.5), and HA-1(1.0-2.0) at concentrations ranging between 0.642 and 0.892 mg/kg, which is less than all applicable DEQ RBCs but greater than the corresponding DEQ CFSL. Cadmium was either not detected at a concentration greater than the analytical laboratory RDLs or was detected at concentrations less than all applicable screening levels in the remaining soil samples analyzed.
- Chromium was detected at concentrations less than all applicable screening levels in the soil samples analyzed.
- Lead was detected in soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-2(11.0-12.5), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-5(8.0-9.5), DP-6(5.0-6.0), DP-7(1.0-2.5), DP-7(4.5-6.0), DP-8(1.0-2.5), DP-8(4.5-6.0), DP-9(0.0-1.5), DP-9(4.0-5.5), DP-10(0.5-2.0),

DP-11(0.0-1.5), DP-11(4.0-5.5), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(0.0-1.5), DP-13(4.5-6.0), DP-14(0.5-2.0), DP-14(5.0-6.5), DP-15(1.0-2.5), DP-15(4.5-6.0), and HA-1(1.0-2.0) at concentrations ranging between 44.3 and 265 mg/kg, which is less than all applicable DEQ RBCs but greater than the corresponding DEQ CFSL. Lead was detected at concentrations less than the DEQ CFSL in the other soil samples analyzed.

- Mercury was detected in soil samples DP-1(16.0-17.0), DP-2(11.0-12.5), DP-3(5.5-7.0), DP-4(7.0-8.5), DP-5(5.5-7.0), and DP-15(1.0-2.5) at concentrations ranging between 0.252 and 0.411 mg/kg, which is less than all applicable DEQ RBCs but greater than the corresponding DEQ CFSL. Mercury was either not detected or was detected at concentrations less than the DEQ CFSL in the other soil samples analyzed.
- Selenium was detected in soil sample DP-8(4.5-6.0) at a concentration of 2.69 mg/kg, which is greater than the corresponding DEQ CFSL. DEQ has not established RBCs for selenium. Selenium was not detected in the other soil samples analyzed.
- Silver was not detected in soil during this investigation.

The lead concentrations detected in soil from borings DP-1, DP-4, DP-5, DP-6, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, DP-13, DP-15, and HA-1 were detected at concentrations that may require special disposal consideration but would not prompt regulatory action by DEQ.

6.1.3 TCLP Lead

Based on the presence of total lead at concentrations greater than 100 mg/kg (threshold for disposal of soil at a RCRA Subtitle D landfill), soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-6(5.0-6.0), DP-7(1.0-2.5), DP-8(1.0-2.5), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-11(4.0-5.5), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(4.5-6.0), DP-15(1.0-2.5), and HA-1(1.0-2.0) were extracted using EPA Method 1311 and analyzed for TCLP lead by EPA Method 6010B. Soil containing TCLP lead concentrations greater than 5 mg/L requires treatment or disposal as hazardous waste. Soil with TCLP lead concentrations less than 5 mg/L can be disposed of as non-hazardous waste at a RCRA Subtitle D landfill. TCLP lead was detected in soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-6(5.0-6.0), DP-7(1.0-2.5), DP-8(1.0-2.5), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-11(4.0-5.5), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(4.5-6.0), and DP-15(1.0-2.5) at concentrations ranging from 0.0517 to 3.73 mg/L. TCLP lead was not detected in soil sample HA-1(1.0-2.0) at a concentration greater than the laboratory RDL of 0.0500 mg/L. These concentrations indicate suitability for disposal as non-hazardous waste.

6.1.4 SVOCs

Thirty-five soil samples were analyzed for SVOCs by EPA Method 8270D-SIM. One or more SVOCs (benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene) were detected in soil samples DP-1(12.0-13.5), DP-1(16.0-17.0), DP-3(5.5-7.0), DP-4(7.0-8.5), DP-4(9.0-10.5), DP-5(5.5-7.0), DP-6(0.5-2.0), DP-6(5.0-6.0), DP-7(1.0-2.5), DP-7(4.5-6.0), DP-8(4.5-6.0), DP-9(0.0-1.5), DP-9(4.0-5.5), DP-10(0.5-2.0), DP-12(1.0-2.5), DP-12(4.0-5.5), DP-13(4.5-6.0), DP-14(0.5-2.0), DP-14(5.0-6.5), DP-15(4.5-6.0), and HA-1(1.0-2.0) at concentrations less than applicable DEQ RBCs but greater than the corresponding DEQ CFSLs. Other SVOCs were either not detected at concentrations greater than the analytical laboratory RDLs or were detected at concentrations less than the corresponding CFSLs in the soil samples analyzed.

6.1.5 PCBs

Three soil samples [DP-4(9.0-10.5), DP-6(0.5-2.0), and DP-9(4.0-5.5)] were analyzed for PCBs by EPA Method 8082. The PCB Aroclor 1260 was detected in soil sample DP-4(9.0-10.5) at a concentration of 0.364 mg/kg, which is less than all applicable DEQ RBCs but greater than the corresponding DEQ CFSL. PCBs were not detected at concentrations greater than the analytical laboratory RDLs in soil samples DP-6(0.5-2.0) and DP-9(4.0-5.5).

The soil sample chemical analytical results are summarized in Tables 1 through 4. The laboratory analytical report, chain-of-custody documentation, and data quality review summary are presented in Appendix B.

7.0 CONCLUSIONS

GeoDesign has conducted a pre-construction subsurface investigation at Block 29 located at the northeastern corner of NW Savier Street and NW 14th Avenue in Portland, Oregon. The results of this investigation indicate the following:

- SVOCs, RCRA 8 metals, and/or PCBs were detected in soil at concentrations greater than corresponding DEQ CFSLs in the upper 2 to 17 feet of soil across the project site.
- Fill material is present across the project site to depths up to 20.0 feet BGS. A 1.2- to 1.7-foot thick layer of wood debris consisting of wood chips is present beneath the northern portion of the project site at depths ranging between approximately 11.8 and 20 feet BGS. Methane was detected during drilling at concentrations that may pose a risk to future occupants at the project site. Based on our experience at similar sites, DEQ will require methane mitigation as part of site redevelopment.

DEQ will require the submittal of a Soil Management Plan for review prior to the initiation of construction activities. In addition, DEQ will require the submittal of a construction completion report after construction is complete. Specific DEQ requirements related to the selected remedial actions presented in the ROD, primarily the installation of a protective cap and annual cap maintenance and reporting, as well as DEQ-related issues outside of the ROD, including methane mitigation, can be negotiated with DEQ based on the nature of the planned development and site conditions following construction completion.

8.0 LIMITATIONS

This report has been prepared for Hoyt Street Properties. This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance by other parties must be approved by GeoDesign, Inc. in accordance with our standard contractual process for third party reliance. Our interpretations of subsurface conditions are based on data from select soil samples obtained from this limited area. The results of the analyses only indicate the presence or absence of those chemical constituents analyzed in those discrete sample locations. It is always possible that contamination could exist between the widely spaced exploration locations. Analytical data from the laboratory samples should only be considered as indicators of project site conditions and not a guarantee of the absence of subsurface impact in areas not sampled.

The conclusions presented in this report are based on our observations made during field investigations and chemical analytical data. The findings of this assessment should be considered as a professional opinion based on our evaluation of selected and limited data.

Our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

♦ ♦ ♦

We appreciate the opportunity to be of service to Hoyt Street Properties. Please call if you have questions regarding this report.

Sincerely,

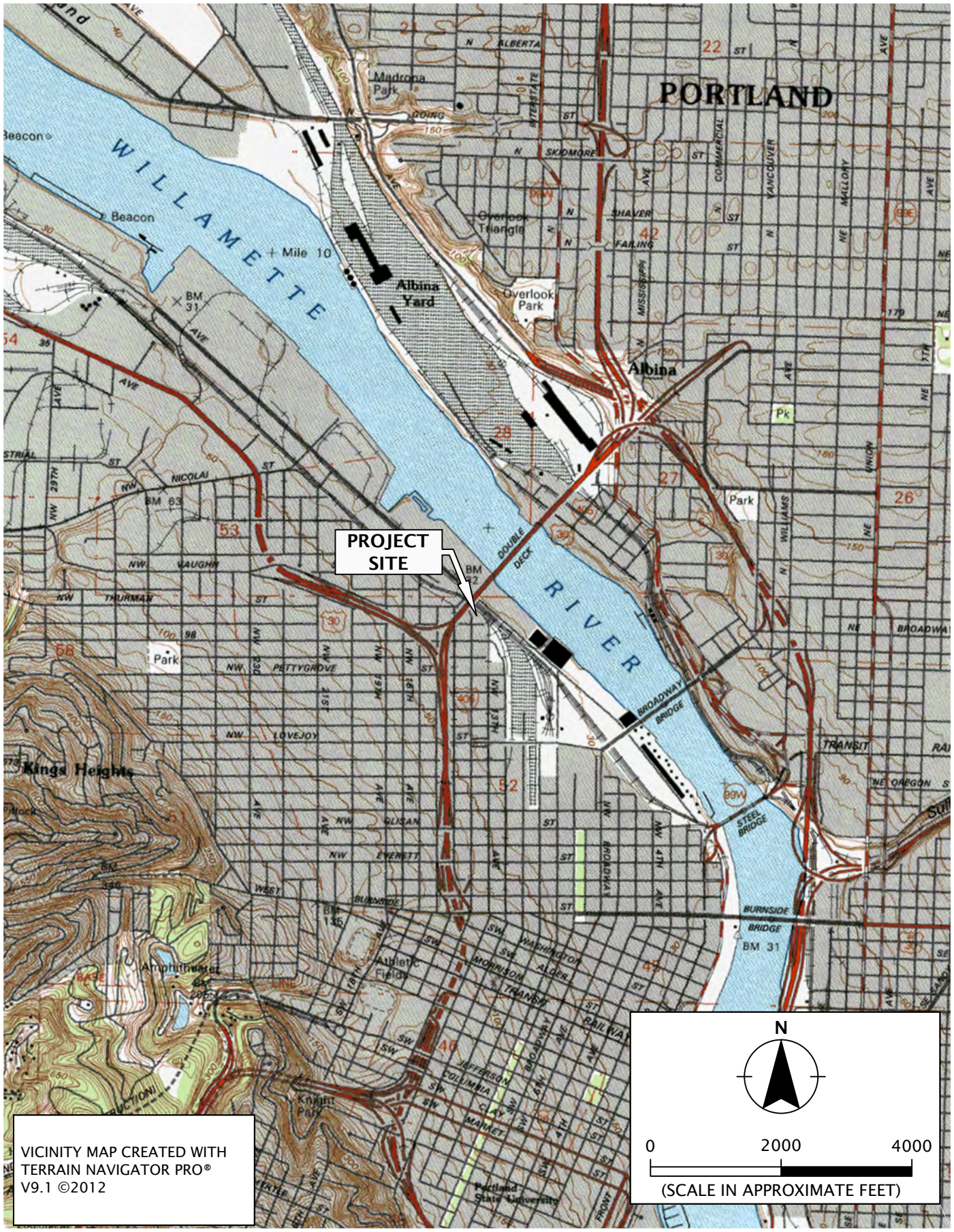
GeoDesign, Inc.

Jeremy M. Zimber
Project Manager

Jason O'Donnell, R.G.
Principal Geologist

Expires 06/01/2017

FIGURES



VICINITY MAP CREATED WITH TERRAIN NAVIGATOR PRO® V9.1 ©2012

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

HOYTSTPROP-7-01	**VICINITY MAP**	
DECEMBER 2016	HOYT STREET PROPERTIES - BLOCK 29 PORTLAND, OR	**FIGURE 1**

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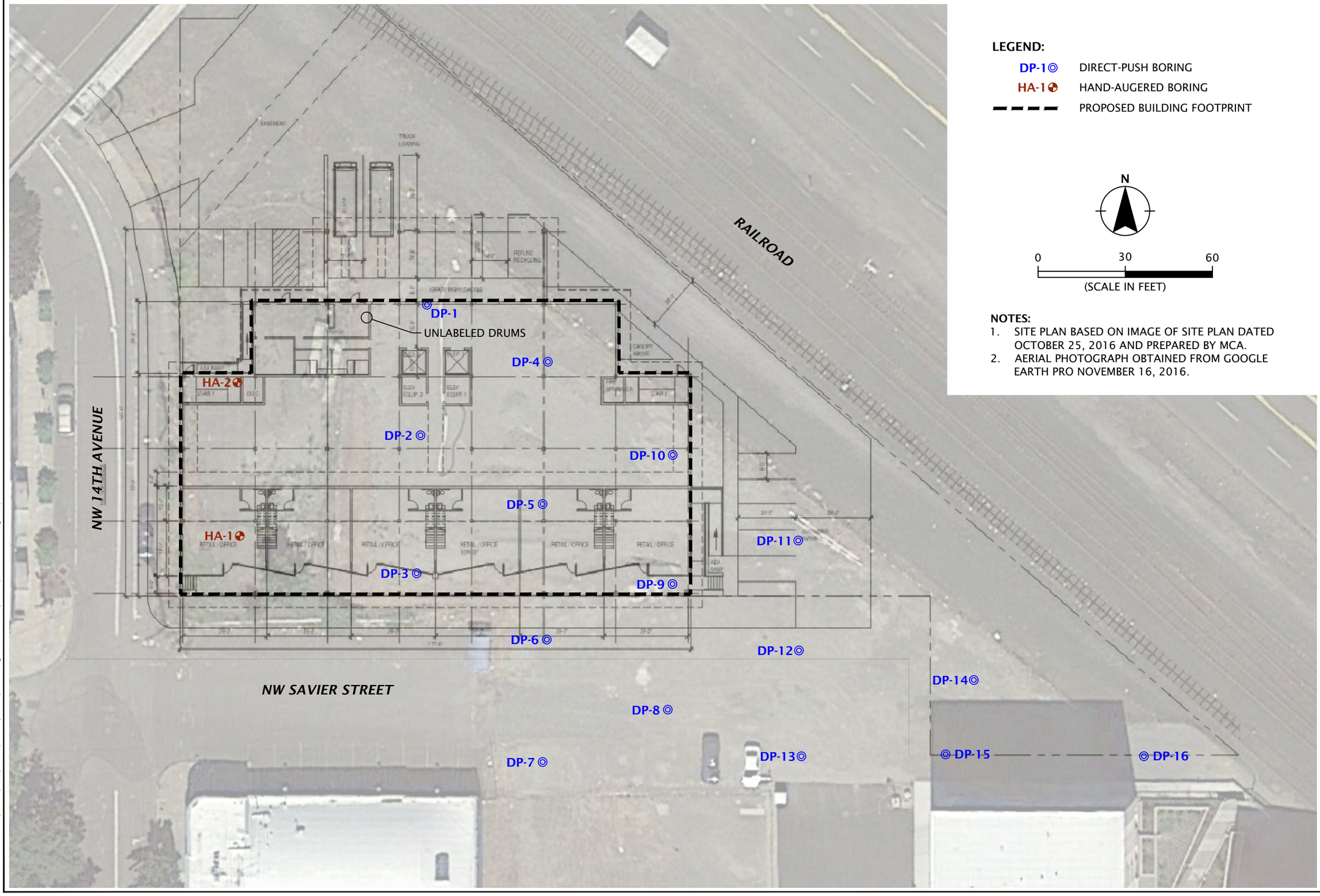

LEGEND:

- DP-1◎ DIRECT-PUSH BORING
- HA-1◓ HAND-AUGERED BORING
- PROPOSED BUILDING FOOTPRINT

N

0 30 60

(SCALE IN FEET)

NOTES:

1. SITE PLAN BASED ON IMAGE OF SITE PLAN DATED OCTOBER 25, 2016 AND PREPARED BY MCA.
2. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO NOVEMBER 16, 2016.

SITE PLAN

FIGURE 2

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

HOYTSTPROP-7-01

DECEMBER 2016

GEODESIGN NW
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

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TABLES

TABLE 1
Summary of Soil Sample Chemical Analytical Results[1]
Petroleum Hydrocarbons
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Diesel- and Residual-Range Organics by Method NWTPH-Dx (mg/kg)	
		Diesel-Range	Residual-Range
DP-1(12.0-13.5)	10/20/16	**149**	**408**
DP-1(16.0-17.0)	10/20/16	**6.50**	**17.2**
DP-2(11.0-12.5)	10/20/16	5.06 U	**33.8**
DP-2(16.0-17.0)	10/20/16	**7.00**	**23.2**
DP-3(0.0-1.5)	10/20/16	90.0 U	**522**
DP-3(5.5-7.0)	10/20/16	**14.1**	**67.7**
DP-4(7.0-8.5)	10/20/16	**53.8**	**205**
DP-4(9.0-10.5)	10/20/16	**233**	**1,550**
DP-5(5.5-7.0)	10/20/16	**102**	**386**
DP-5(8.0-9.5)	10/20/16	**99.1**	**1,040**
DP-9(0.0-1.5)	10/20/16	92.4 U	**1,110**
DP-9(4.0-5.5)	10/20/16	**434**	**2,160**
DP-10(0.5-2.0)	10/20/16	**114**	**288**
DP-10(4.0-5.5)	10/20/16	**10.3**	**36.7**
HA-1(1.0-2.0)	11/15/16	92.1 U	**683**
HA-2(3.0-4.0)	11/15/16	5.22 U	13.0 U
DRUM-1	10/20/16	**9.59**	**36.6**
Borings/Samples Outside of Proposed Building Footprint			
DP-6(0.5-2.0)	10/20/16	**125**	**1,500**
DP-6(5.0-6.0)	10/20/16	**30.7**	**233**
DP-7(1.0-2.5)	10/20/16	104 U	**449**
DP-7(4.5-6.0)	10/20/16	**8.75**	**51.1**
DP-8(1.0-2.5)	10/20/16	103 U	**1,220**
DP-8(4.5-6.0)	10/20/16	**56.8**	**496**
DP-11(0.0-1.5)	10/20/16	47.7 U	**679**
DP-11(4.0-5.5)	10/20/16	**133**	**313**
DP-12(1.0-2.5)	10/20/16	**153**	**1,300**
DP-12(4.0-5.5)	10/20/16	**102**	**843**
DP-13(0.0-1.5)	10/20/16	**95.1**	**1,250**
DP-13(4.5-6.0)	10/20/16	24.1 U	**113**
DP-14(0.5-2.0)	10/20/16	**61.9**	**276**

TABLE 1
Summary of Soil Sample Chemical Analytical Results[1]
Petroleum Hydrocarbons
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Diesel- and Residual-Range Organics by Method NWTPH-Dx (mg/kg)	
		Diesel-Range	Residual-Range
DP-14(5.0-6.5)	10/20/16	**16.2**	**33.1**
DP-15(1.0-2.5)	10/20/16	90.0 U	**749**
DP-15(4.5-6.0)	10/20/16	**18.1**	**33.1**
DP-16(0.0-1.5)	10/20/16	4.31 U	10.8 U
DP-16(4.0-5.5)	10/20/16	**13.8**	**131**
DEQ Generic RBCs[2]			
Soil Ingestion, Dermal Contact, and Inhalation			
Construction Worker		4,600	11,000
Excavation Worker		>Max	>Max
Volatilization to Outdoor Air			
Occupational		>Max	>Max
Vapor Intrusion into Buildings			
Occupational		>Max	>Max
DEQ CFSLs[3]		NE	NE

Notes:
1. Chemical analyses performed by ESC Lab Sciences of Mt. Juliet, Tennessee.
2. DEQ Generic RBCs dated November 2015
3. DEQ Soil CFSLs updated July 23, 2014

>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.

U: not detected at concentrations greater than the laboratory RDL (shown)

Bolding indicates analyte detected at or above the laboratory RDL.

TABLE 2
Summary of Soil Sample Chemical Analytical Results[1]
RCRA 8 Total Metals and TCLP Lead
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	RCRA 8 Total Metals by EPA Methods 6010B/7471A (mg/kg)								TCLP Lead by EPA Methods 1311/6010B (mg/L)
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	
DP-1(12.0-13.5)	10/20/16	2.20 U	101	0.698	17.5	226	0.117	2.20 U	1.10 U	3.73
DP-1(16.0-17.0)	10/20/16	2.76	197	0.664 U	25.4	110	0.252	2.66 U	1.33 U	1.34
DP-2(11.0-12.5)	10/20/16	4.23	171	0.633 U	20.0	62.7	0.343	2.53 U	1.27 U	--
DP-2(16.0-17.0)	10/20/16	2.89 U	203	0.723 U	24.3	26.7	0.102	2.89 U	1.45 U	--
DP-3(0.0-1.5)	10/20/16	2.25 U	119	0.562 U	15.2	25.4	0.0225 U	2.25 U	1.12 U	--
DP-3(5.5-7.0)	10/20/16	2.53 U	151	0.631 U	21.3	25.8	0.349	2.53 U	1.26 U	--
DP-4(7.0-8.5)	10/20/16	2.35 U	162	0.587 U	19.6	138	0.365	2.35 U	1.17 U	0.0653
DP-4(9.0-10.5)	10/20/16	2.19 U	112	0.892	21.8	174	0.160	2.19 U	1.10 U	0.247
DP-5(5.5-7.0)	10/20/16	2.32 U	214	0.580 U	20.8	156	0.364	2.32 U	1.16 U	0.0632
DP-5(8.0-9.5)	10/20/16	2.23 U	123	0.557 U	17.1	44.3	0.0869	2.23 U	1.11 U	--
DP-9(0.0-1.5)	10/20/16	2.31 U	111	0.578 U	13.7	68.0	0.103	2.31 U	1.16 U	--
DP-9(4.0-5.5)	10/20/16	2.26 U	127	0.796	21.2	252	0.159	2.26 U	1.13 U	0.200
DP-10(0.5-2.0)	10/20/16	2.21 U	103	0.642	19.5	116	0.0759	2.21 U	1.11 U	0.0517
DP-10(4.0-5.5)	10/20/16	3.98	88.7	0.575 U	10.5	11.2	0.0347	2.30 U	1.15 U	--
HA-1(1.0-2.0)	11/15/16	6.07	94.5	0.795	16.8	189	0.127	2.30 U	1.15 U	0.0500 U
HA-2(3.0-4.0)	11/15/16	10.2	206	0.652 U	22.0	24.1	0.0303	2.61 U	1.30 U	--
DRUM-1	10/20/16	2.15 U	168	0.537 U	24.9	20.3	0.0346	2.15 U	1.07 U	--
Borings/Samples Outside of Proposed Building Footprint										
DP-6(0.5-2.0)	10/20/16	1.82 U	72.2	0.455 U	9.14	25.6	0.0418	1.82 U	0.910 U	--
DP-6(5.0-6.0)	10/20/16	2.37 U	110	0.593 U	35.5	153	0.0873	2.37 U	1.19 U	0.494
DP-7(1.0-2.5)	10/20/16	2.59 U	187	0.648 U	23.1	265	0.0965	2.59 U	1.30 U	0.154
DP-7(4.5-6.0)	10/20/16	4.81	69.2	0.604 U	8.67	73.4	0.0838	2.42 U	1.21 U	--
DP-8(1.0-2.5)	10/20/16	2.58 U	171	0.645 U	18.7	215	0.0258 U	2.58 U	1.29 U	0.161
DP-8(4.5-6.0)	10/20/16	2.45 U	84.8	0.614 U	41.8	97.3	0.164	2.69	1.23 U	--
DP-11(0.0-1.5)	10/20/16	6.39	147	0.654	22.6	74.3	0.0559	2.39 U	1.19 U	--
DP-11(4.0-5.5)	10/20/16	5.74	244	0.577 U	12.8	106	0.0627	2.31 U	1.15 U	0.0564
DP-12(1.0-2.5)	10/20/16	7.85	143	0.588 U	20.1	162	0.183	2.35 U	1.18 U	0.553
DP-12(4.0-5.5)	10/20/16	7.03	104	0.586	19.3	168	0.132	2.30 U	1.15 U	0.121
DP-13(0.0-1.5)	10/20/16	7.83	116	0.565 U	16.7	68.2	0.107	2.26 U	1.13 U	--
DP-13(4.5-6.0)	10/20/16	9.71	173	0.602 U	25.7	125	0.200	2.41 U	1.20 U	0.0559
DP-14(0.5-2.0)	10/20/16	13.5	87.6	0.623	19.6	81.5	0.0495	2.32 U	1.16 U	--

TABLE 2
Summary of Soil Sample Chemical Analytical Results[1]
RCRA 8 Total Metals and TCLP Lead
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	RCRA 8 Total Metals by EPA Methods 6010B/7471A (mg/kg)								TCLP Lead by EPA Methods 1311/6010B (mg/L)
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	
DP-14(5.0-6.5)	10/20/16	**8.49**	**138**	0.747 U	**23.4**	**49.0**	**0.0318**	2.99 U	1.49 U	--
DP-15(1.0-2.5)	10/20/16	**6.05**	**131**	0.562 U	**17.6**	**110**	**0.411**	2.25 U	1.12 U	**0.257**
DP-15(4.5-6.0)	10/20/16	**4.99**	**83.6**	0.589 U	**10.3**	**46.0**	**0.223**	2.36 U	1.18 U	--
DP-16(0.0-1.5)	10/20/16	**2.21**	**66.4**	0.539 U	**8.36**	**4.09**	0.0216 U	2.16 U	1.08 U	--
DP-16(4.0-5.5)	10/20/16	**2.51**	**146**	0.563 U	**6.25**	**6.25**	0.0225 U	2.25 U	1.13 U	--
DEQ Generic RBCs[2]										
Soil Ingestion, Dermal Contact, and Inhalation										
Construction Worker		15	69,000	350	530,000	800	110	NE	1,800	NE
Excavation Worker		420	>Max	9,700	>Max	800	2,900	NE	49,000	NE
Volatization to Outdoor Air										
Occupational		NV	NV	NV	NV	NV	NV	NE	NV	NE
Vapor Intrusion into Buildings										
Occupational		NV	NV	NV	NV	NV	NV	NE	NV	NE
DEQ Default Background Metals Concentrations		8.8	790	0.63	76	79	0.23	0.71	NE	NE
DEQ CFSLs[3]		8.8	790	0.63	76	28	0.23	0.71	4.2	NE
Maximum Allowable Concentration for RCRA Subtitle D Landfill Disposal										5.0000

Notes:
1. Chemical analyses performed by ESC Lab Sciences of Mt. Juliet, Tennessee.
2. DEQ Generic RBCs dated November 2015
3. DEQ Soil CFSLs updated July 23, 2014

>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.

U: not detected at concentrations greater than the laboratory RDL (shown)

--: not analyzed

Bolding indicates analyte detected at or above the laboratory RDL.

Shading indicates analyte detection at a concentration greater than DEQ CFSLs.

TABLE 3
Summary of Soil Sample Chemical Analytical Results [1]
SVOCs
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	SVOCs by EPA Method 8270D-SIM (mg/kg)																		
		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	2-Chloronaphthalene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
DP-1(12.0-13.5)	10/20/16	**0.474**	0.0329 U	**0.695**	1.08	0.968	1.01	**0.247**	**0.521**	0.110 U	1.18	0.132	2.31	**0.340**	0.406	0.110 U	0.110 U	0.110 U	**2.76**	**2.61**
DP-1(16.0-17.0)	10/20/16	0.00797 U	**0.0105**	0.00797 U	**0.0291**	**0.0291**	**0.0311**	**0.00934**	**0.0182**	0.0266 U	**0.0385**	0.00797 U	**0.0389**	0.00797 U	**0.0135**	0.0266 U	0.0266 U	**0.0282**	**0.0196**	**0.0517**
DP-2(11.0-12.5)	10/20/16	0.00759 U	0.00759 U	0.00759 U	0.00759 U	**0.0103**	**0.0121**	0.00759 U	**0.00994**	0.0253 U	**0.00788**	0.00759 U	**0.0152**	0.00759 U	0.00759 U	0.0253 U	0.0253 U	0.0253 U	0.00759 U	**0.0170**
DP-2(16.0-17.0)	10/20/16	0.00868 U	0.00868 U	0.00868 U	0.00868 U	**0.0111**	**0.00927**	0.00868 U	**0.0137**	0.0289 U	0.00868 U	0.00868 U	**0.0142**	0.00868 U	0.00868 U	0.0289 U	0.0289 U	0.0289 U	**0.0122**	**0.0162**
DP-3(0.0-1.5)	10/20/16	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.450 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.450 U	0.450 U	0.450 U	0.135 U	0.135 U
DP-3(5.5-7.0)	10/20/16	**0.0234**	0.00758 U	**0.0187**	**0.0177**	**0.0165**	**0.0187**	0.00758 U	**0.0132**	0.0253 U	**0.0233**	0.00758 U	**0.0426**	**0.0230**	**0.00961**	0.0253 U	0.0253 U	**0.0275**	**0.0478**	**0.0511**
DP-4(7.0-8.5)	10/20/16	0.0352 U	0.0352 U	0.0352 U	**0.0679**	**0.0842**	**0.0847**	0.0352 U	**0.0869**	0.117 U	**0.0844**	0.0352 U	**0.161**	0.0352 U	**0.0532**	0.117 U	0.117 U	**0.123**	**0.128**	**0.183**
DP-4(9.0-10.5)	10/20/16	0.132 U	0.132 U	0.132 U	**0.136**	**0.144**	**0.231**	0.132 U	**0.177**	0.439 U	**0.296**	0.132 U	**0.331**	0.132 U	0.132 U	0.439 U	0.439 U	0.439 U	**0.407**	**0.467**
DP-5(5.5-7.0)	10/20/16	0.0348 U	0.0348 U	0.0348 U	**0.0813**	**0.0846**	**0.113**	0.0348 U	**0.0847**	0.116 U	**0.0859**	0.0348 U	**0.122**	0.0348 U	**0.0576**	0.116 U	0.116 U	0.116 U	**0.0535**	**0.130**
DP-5(8.0-9.5)	10/20/16	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.446 U	**0.146**	0.134 U	**0.166**	0.134 U	0.134 U	0.446 U	0.446 U	0.446 U	0.134 U	**0.234**
DP-9(0.0-1.5)	10/20/16	0.0693 U	0.0693 U	0.0693 U	**0.0821**	**0.0956**	**0.111**	0.0693 U	**0.133**	0.231 U	**0.109**	0.0693 U	**0.153**	0.0693 U	0.0693 U	0.231 U	0.231 U	0.231 U	**0.0984**	**0.193**
DP-9(4.0-5.5)	10/20/16	0.0679 U	0.0679 U	**0.0768**	**0.183**	**0.279**	**0.405**	**0.103**	**0.240**	0.226 U	**0.402**	0.0679 U	**0.226**	0.0679 U	**0.158**	0.226 U	0.226 U	**0.232**	**0.223**	**0.288**
DP-10(0.5-2.0)	10/20/16	**0.0660**	0.0133 U	**0.0643**	**0.0612**	**0.0578**	**0.0826**	**0.0170**	**0.0579**	0.0442 U	**0.0971**	0.0133 U	**0.159**	**0.0752**	**0.0362**	**0.0503**	0.0442 U	**0.0673**	**0.0785**	**0.169**
DP-10(4.0-5.5)	10/20/16	**0.0123**	0.00691 U	0.00691 U	**0.00716**	0.00691 U	**0.00723**	0.00691 U	0.00691 U	0.0230 U	**0.0102**	0.00691 U	**0.0160**	**0.00733**	0.00691 U	0.0230 U	0.0230 U	0.0230 U	**0.00788**	**0.0183**
HA-1(1.0-2.0)	11/15/16	0.0345 U	**0.0468**	**0.0743**	**0.215**	**0.178**	**0.216**	**0.0814**	**0.157**	0.115 U	**0.242**	**0.0388**	**0.575**	0.0345 U	**0.116**	0.115 U	0.115 U	0.115 U	**0.290**	**0.431**
HA-2(3.0-4.0)	11/15/16	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.0261 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.00782 U	0.0261 U	0.0261 U	0.0261 U	0.00782 U	0.00782 U
DRUM-1	10/20/16	0.00644 U	0.00644 U	0.00644 U	**0.0116**	**0.0129**	**0.0155**	**0.00645**	**0.0101**	0.0215 U	**0.0161**	0.00644 U	**0.0265**	0.00644 U	**0.00667**	0.0215 U	0.0215 U	0.0215 U	**0.0257**	**0.0300**
Borings/Samples Outside of Proposed Building Footprint																				
DP-6(0.5-2.0)	10/20/16	0.0655 U	0.0655 U	0.0655 U	**0.117**	**0.121**	**0.151**	0.0655 U	**0.156**	0.218 U	**0.145**	0.0655 U	**0.215**	0.0655 U	**0.0821**	0.218 U	0.218 U	0.218 U	**0.177**	**0.237**
DP-6(5.0-6.0)	10/20/16	**0.0711**	0.0356 U	**0.340**	**0.541**	**0.337**	**0.271**	0.0356 U	**0.140**	0.119 U	**0.604**	**0.0528**	**0.509**	**0.217**	**0.0752**	0.119 U	**0.198**	0.119 U	**1.17**	**1.11**
DP-7(1.0-2.5)	10/20/16	**0.0217**	0.0155 U	**0.0344**	**0.0792**	**0.118**	**0.117**	**0.0400**	**0.126**	0.0518 U	**0.100**	**0.0204**	**0.134**	**0.0352**	**0.0787**	**0.0694**	**0.109**	**0.0758**	**0.101**	**0.157**
DP-7(4.5-6.0)	10/20/16	**0.0934**	0.0145 U	**0.0169**	**0.0309**	**0.0329**	**0.0406**	0.0145 U	**0.0322**	0.0483 U	**0.0331**	0.0145 U	**0.0590**	**0.0533**	**0.0221**	**0.0859**	**0.129**	**0.136**	**0.0737**	**0.0580**
DP-8(1.0-2.5)	10/20/16	0.155 U	0.155 U	0.155 U	0.155 U	0.155 U	0.155 U	0.155 U	0.155 U	0.516 U	0.155 U	0.155 U	0.155 U	0.155 U	0.155 U	0.516 U	0.516 U	0.516 U	0.155 U	0.155 U
DP-8(4.5-6.0)	10/20/16	0.0736 U	0.0736 U	0.0736 U	**0.0877**	**0.0811**	**0.129**	0.0736 U	**0.0868**	0.245 U	**0.140**	0.0736 U	**0.180**	0.0736 U	0.0736 U	0.245 U	0.245 U	**0.328**	**0.154**	**0.212**
DP-11(0.0-1.5)	10/20/16	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.239 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.0716 U	0.239 U	0.239 U	0.239 U	0.0716 U	0.0716 U
DP-11(4.0-5.5)	10/20/16	**0.0158**	**0.0130**	**0.0126**	**0.0133**	**0.0121**	**0.0163**	0.00692 U	**0.0118**	0.0231 U	**0.0222**	0.00692 U	**0.0385**	**0.0109**	**0.00726**	**0.0272**	**0.0364**	**0.0802**	**0.0398**	**0.0432**
DP-12(1.0-2.5)	10/20/16	0.0353 U	0.0353 U	**0.0395**	**0.137**	**0.172**	**0.298**	**0.0626**	**0.398**	0.118 U	**0.238**	**0.0410**	**0.449**	0.0353 U	**0.229**	0.118 U	0.118 U	**0.161**	**0.198**	**0.468**
DP-12(4.0-5.5)	10/20/16	0.0346 U	0.0346 U	**0.0427**	**0.100**	**0.0949**	**0.120**	**0.0355**	**0.135**	0.115 U	**0.124**	0.0346 U	**0.190**	0.0346 U	**0.0659**	0.115 U	0.115 U	0.115 U	**0.163**	**0.197**
DP-13(0.0-1.5)	10/20/16	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	0.452 U	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	0.452 U	0.452 U	0.452 U	0.136 U	0.136 U
DP-13(4.5-6.0)	10/20/16	0.0361 U	**0.0500**	**0.0811**	**0.195**	**0.187**	**0.224**	**0.0652**	**0.145**	0.120 U	**0.241**	**0.0384**	**0.436**	**0.0971**	**0.102**	0.120 U	0.120 U	**0.241**	**0.623**	**0.451**
DP-14(0.5-2.0)	10/20/16	0.00696 U	0.00696 U	**0.0472**	**0.0299**	**0.0342**	**0.0474**	**0.0135**	**0.0450**	0.0232 U	**0.0495**	**0.0114**	**0.0544**	**0.00795**	**0.0362**	0.0232 U	0.0232 U	0.0232 U	**0.0253**	**0.0820**
DP-14(5.0-6.5)	10/20/16	0.00897 U	0.00897 U	**0.0130**	**0.0139**	**0.0127**	**0.0171**	0.00897 U	**0.0132**	0.0299 U	**0.0230**	0.00897 U	**0.0331**	**0.00966**	0.00897 U	**0.0811**	**0.110**	**0.0938**	**0.0597**	**0.0362**
DP-15(1.0-2.5)	10/20/16	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.135 U	0.450 U	0.135 U	0.135 U	**0.141**	0.135 U	0.135 U	0.450 U	0.450 U	0.450 U	0.135 U	**0.165**
DP-15(4.5-6.0)	10/20/16	0.00707 U	0.00707 U	0.00707 U	**0.0153**	**0.0175**	**0.0177**	**0.00755**	**0.0123**	0.0236 U	**0.0188**	0.00707 U	**0.0335**	0.00707 U	**0.00852**	0.0236 U	0.0236 U	0.0236 U	**0.0211**	**0.0399**
DP-16(0.0-1.5)	10/20/16	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.0216 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.00647 U	0.0216 U	0.0216 U	0.0216 U	0.00647 U	0.00647 U
DP-16(4.0-5.5)	10/20/16	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.0225 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.00675 U	0.0225 U	0.0225 U	0.0225 U	0.00675 U	0.00675 U
DEQ Generic RBCs[2]																				
Soil Ingestion, Dermal Contact, and Inhalation																				
Construction Worker		21,000	NE	110,000	24	2.4	24	240	NE	NE	2,400	2.4	10,000	14,000	24	NE	NE	580	NE	7,500
Excavation Worker		590,000	NE	>Max	660	67	670	6,700	NE	NE	67,000	67	280,000	390,000	670	NE	NE	16,000	NE	210,000

TABLE 3
Summary of Soil Sample Chemical Analytical Results [1]
SVOCs
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	SVOCs by EPA Method 8270D-SIM (mg/kg)																	
		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	2-Chloronaphthalene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Volatilization to Outdoor Air																				
Occupational		>Max	NE	>Max	>Csat	NV	NV	NV	NE	NE	NV	NV	NV	>Max	NV	NE	NE	83	NE	>Csat
Vapor Intrusion into Buildings																				
Occupational		>Max	NE	>Max	>Csat	NV	NV	NV	NE	NE	NV	NV	NV	>Max	NV	NE	NE	83	NE	>Csat
DEQ CFSLs[3]		29	NE	29	0.15	0.015	0.15	1.1	NE	NE	14	0.015	29	29	0.15	0.738	310	0.087	NE	1,700

Notes:
1. Chemical analyses performed by ESC Lab Sciences of Mt. Juliet, Tennessee.
2. DEQ Generic RBCs dated November 2015
3. DEQ Soil CFSLs updated July 23, 2014
>Csat: Concentrations in excess of Csat indicate free product may be present.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
U: not detected at concentrations greater than the laboratory RDL (shown)
Bolding indicates analyte detected at or above the laboratory RDL.
Shading indicates analyte detection at a concentration greater than DEQ CFSLs.

TABLE 4
Summary of Soil Sample Analytical Results[1]
PCBs
Hoyt Street Properties - Block 29
Northeast of NW Savier Street and NW 14th Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	PCBs by EPA Method 8082 (mg/kg)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
DP-4(9.0-10.5)	10/20/16	0.0187 U	0.0187 U	0.0187 U	0.0187 U	0.0187 U	0.0187 U	**0.364**
DP-9(4.0-5.5)	10/20/16	0.0193 U	0.0193 U	0.0193 U	0.0193 U	0.0193 U	0.0193 U	0.0193 U
Boring/Sample Outside of Proposed Building Footprint								
DP-6(0.5-2.0)	10/20/16	0.0186 U	0.0186 U	0.0186 U	0.0186 U	0.0186 U	0.0186 U	0.0186 U
DEQ Generic RBCs[2]								
Soil Ingestion, Dermal Contact, and Inhalation								
Construction Worker		4.9						
Excavation Worker		140						
Volatilization to Outdoor Air								
Occupational		>Csat						
Vapor Intrusion into Buildings								
Occupational		>Csat						
DEQ CFSLs[3]		0.2						

Notes:
1. Chemical analyses performed by ESC Lab Sciences of Mt. Juliet, Tennessee.
2. DEQ Generic RBCs dated November 2015
3. DEQ Soil CFSLs updated July 23, 2014
>Csat: Concentrations in excess of Csat indicate free product may be present.
U: not detected at concentrations greater than the laboratory RDL (shown)
Bolding indicates analyte detected at or above the laboratory RDL.
Shading indicates analyte detection at a concentration greater than DEQ CFSLs.

APPENDIX A

APPENDIX A

SUBSURFACE EXPLORATIONS

GENERAL

Direct-push borings (DP-1 through DP-16) were completed at the project site on October 20, 2016. The explorations were completed using drilling equipment owned and operated by ESN Northwest, Inc. of Olympia, Washington. Hand-augered borings (HA-1 and HA-2) were completed at the project site on November 15, 2016. Hand-augered borings were completed using a hand auger owned and operated by GeoDesign. The boring locations are shown on Figure 2. The exploration logs are presented in this appendix.

A GeoDesign field representative observed the explorations and obtained soil samples from the explorations. The soil encountered in the explorations was visually classified in general accordance with ASTM D 2488.

SOIL SAMPLING

Continuous soil samples were collected from the explorations. Soil samples were placed in laboratory-prepared sample jars with Teflon-lined lids and immediately placed in an ice chest and kept cool until delivery to the laboratory. The jars were packed full to lessen headspace in the containers. Standard chain-of-custody procedures were observed during transport of the samples to the laboratory.

SOIL SAMPLE FIELD SCREENING METHODS

A GeoDesign representative performed field screening tests on selected soil samples collected from the explorations. Field screening results aided in the selection of soil samples for chemical analysis. Screening methods included visual examination, water sheen screening, and headspace vapor screening using a MiniRAE PID.

Visual screening consisted of inspecting the soil for discoloration indicative of the presence of petroleum material in the sample. Water sheen screening involved placing soil in water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen	No visible sheen on the water surface.
Slight Sheen	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening is performed by placing a soil sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The

probe of a MiniRAE PID is inserted into the bag, and the MiniRAE PID measures VOC vapor concentrations in units of ppm. The MiniRAE PID is calibrated to isobutylene. The MiniRAE PID is designed to quantify VOC vapor concentrations in the range between 1 and 2,000 ppm with an accuracy of 10 percent of the reading and between 2,000 and 10,000 ppm with an accuracy of 20 percent of the reading.

Field screening results are site and exploration specific. The results may vary with temperature, soil moisture content, soil type, and type of contaminant.

DECONTAMINATION

All sampling equipment used in the collection of samples was decontaminated prior to use. Decontamination was performed on all sample re-usable processing equipment that came into contact with sampling media, including tools, stainless steel implements, trowels, etc. Decontamination was performed prior to sampling each location using the following procedures:

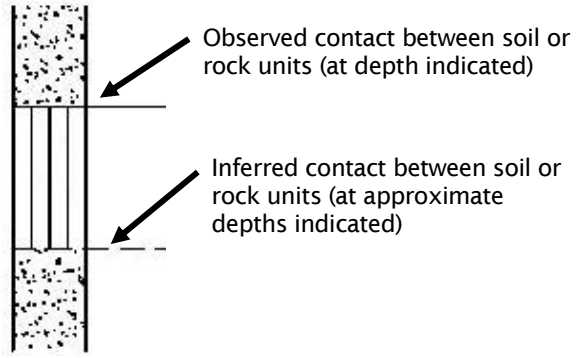
1. Rinsed with tap water and scrubbed with a scrub brush until free of large particles (e.g., sediment of soil)
2. Washed with phosphate-free (Alconox™) detergent solution
3. Rinsed with tap water
4. Rinsed with distilled water

IDW

IDW from the explorations (soil cuttings) was placed into one 33-gallon drum that was left on site pending disposal.

SYMBOL	SAMPLING DESCRIPTION
	Location of sample obtained in general accordance with ASTM D 1586 Standard Penetration Test with recovery
	Location of sample obtained using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D 1587 with recovery
	Location of sample obtained using Dames & Moore sampler and 300-pound hammer or pushed with recovery
	Location of sample obtained using Dames & Moore and 140-pound hammer or pushed with recovery
	Location of sample obtained using 3-inch-O.D. California split-spoon sampler and 140-pound hammer
	Location of grab sample
	Rock coring interval
	Water level during drilling
	Water level taken on date shown

Graphic Log of Soil and Rock Types



GEOTECHNICAL TESTING EXPLANATIONS

ATT	Atterberg Limits	PP	Pocket Penetrometer
CBR	California Bearing Ratio	P200	Percent Passing U.S. Standard No. 200 Sieve
CON	Consolidation		
DD	Dry Density	RES	Resilient Modulus
DS	Direct Shear	SIEV	Sieve Gradation
HYD	Hydrometer Gradation	TOR	Torvane
MC	Moisture Content	UC	Unconfined Compressive Strength
MD	Moisture-Density Relationship	VS	Vane Shear
OC	Organic Content	kPa	Kilopascal
P	Pushed Sample		

ENVIRONMENTAL TESTING EXPLANATIONS

CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
		MS	Moderate Sheen
ppm	Parts per Million	HS	Heavy Sheen

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EXPLORATION KEY

TABLE A-1

RELATIVE DENSITY - COARSE-GRAINED SOILS

Relative Density	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)
Very Loose	0 – 4	0 - 11	0 - 4
Loose	4 – 10	11 - 26	4 - 10
Medium Dense	10 – 30	26 - 74	10 - 30
Dense	30 – 50	74 - 120	30 - 47
Very Dense	More than 50	More than 120	More than 47

CONSISTENCY - FINE-GRAINED SOILS

Consistency	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)	Unconfined Compressive Strength (tsf)
Very Soft	Less than 2	Less than 3	Less than 2	Less than 0.25
Soft	2 - 4	3 – 6	2 - 5	0.25 - 0.50
Medium Stiff	4 - 8	6 – 12	5 - 9	0.50 - 1.0
Stiff	8 - 15	12 – 25	9 - 19	1.0 - 2.0
Very Stiff	15 - 30	25 – 65	19 – 31	2.0 - 4.0
Hard	More than 30	More than 65	More than 31	More than 4.0

PRIMARY SOIL DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE-GRAINED SOILS (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVELS (< 5% fines)	GW or GP	GRAVEL
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)	GW-GM or GP-GM	GRAVEL with silt
			GW-GC or GP-GC	GRAVEL with clay
		GRAVELS WITH FINES (> 12% fines)	GM	silty GRAVEL
			GC	clayey GRAVEL
			GC-GM	silty, clayey GRAVEL
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SANDS (<5% fines)	SW or SP	SAND
		SANDS WITH FINES (≥ 5% and ≤ 12% fines)	SW-SM or SP-SM	SAND with silt
			SW-SC or SP-SC	SAND with clay
		SANDS WITH FINES (> 12% fines)	SM	silty SAND
			SC	clayey SAND
			SC-SM	silty, clayey SAND
FINE-GRAINED SOILS (50% or more passing No. 200 sieve)	SILT AND CLAY	Liquid limit less than 50	ML	SILT
			CL	CLAY
			CL-ML	silty CLAY
			OL	ORGANIC SILT or ORGANIC CLAY
		Liquid limit 50 or greater	MH	SILT
			CH	CLAY
			OH	ORGANIC SILT or ORGANIC CLAY
HIGHLY ORGANIC SOILS			PT	PEAT

MOISTURE CLASSIFICATION

Term	Field Test
dry	very low moisture, dry to touch
moist	damp, without visible moisture
wet	visible free water, usually saturated

ADDITIONAL CONSTITUENTS

Secondary granular components or other materials such as organics, man-made debris, etc.

Percent	Silt and Clay In: Fine-Grained Soils	Silt and Clay In: Coarse-Grained Soils	Percent	Sand and Gravel In: Fine-Grained Soils	Sand and Gravel In: Coarse-Grained Soils
< 5	trace	trace	< 5	trace	trace
5 – 12	minor	with	5 – 15	minor	minor
> 12	some	silty/clayey	15 – 30	with	with
			> 30	sandy/gravelly	Indicate %

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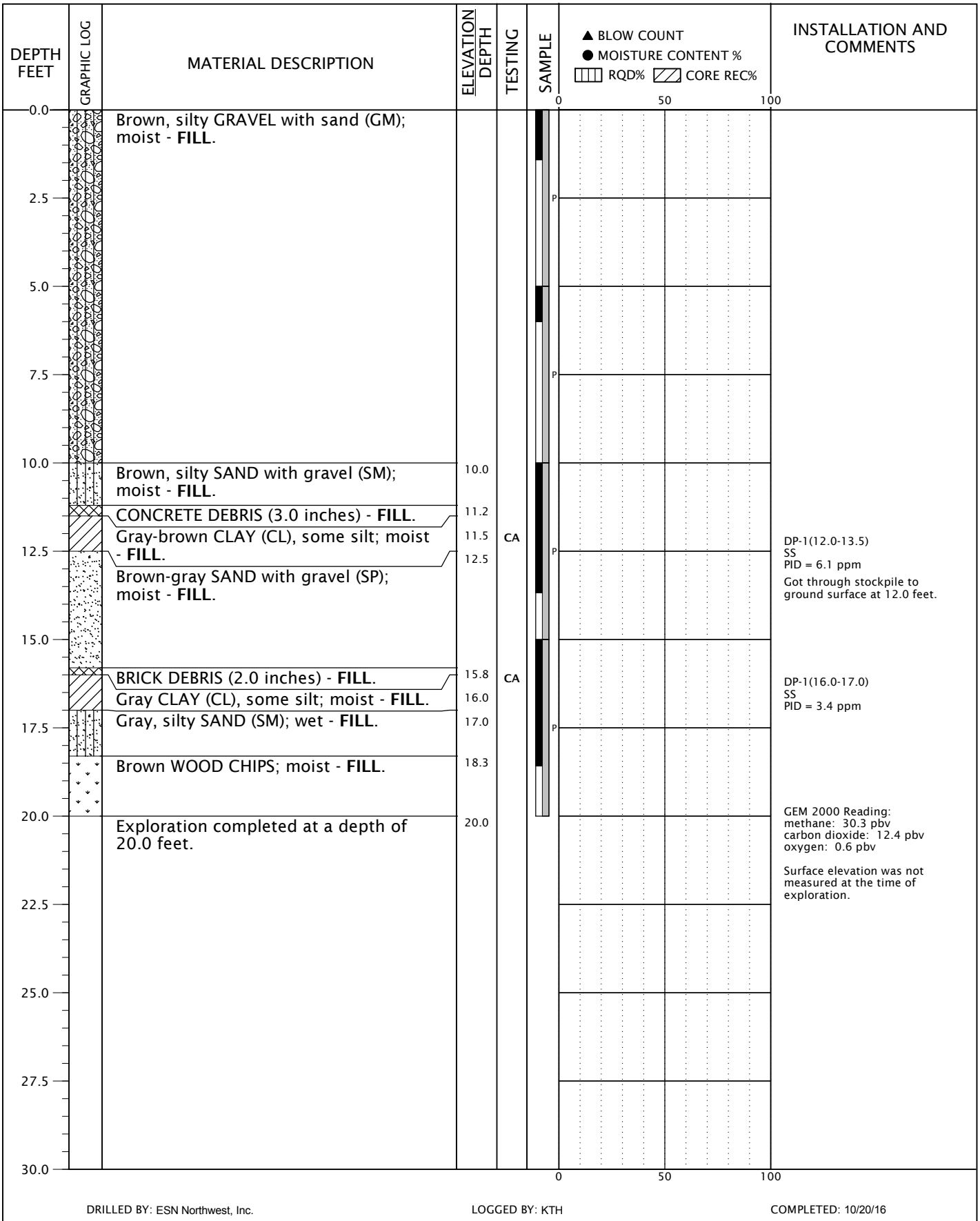
SOIL CLASSIFICATION SYSTEM

TABLE A-2



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BORING METHOD: direct push (see document text)

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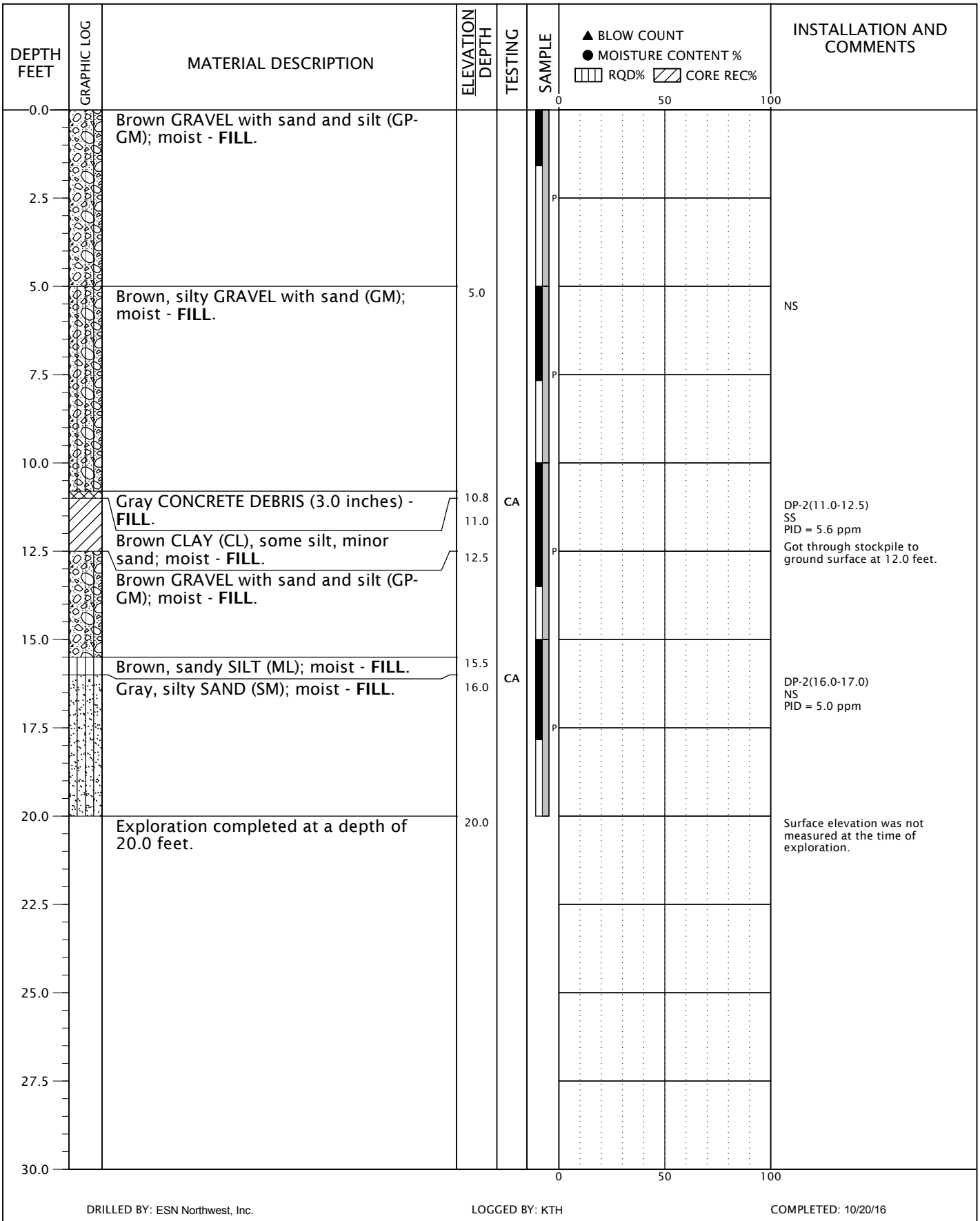
FIGURE A-1

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



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BORING METHOD: direct push (see document text)

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HOYTSTPROP-7-01

BORING DP-2

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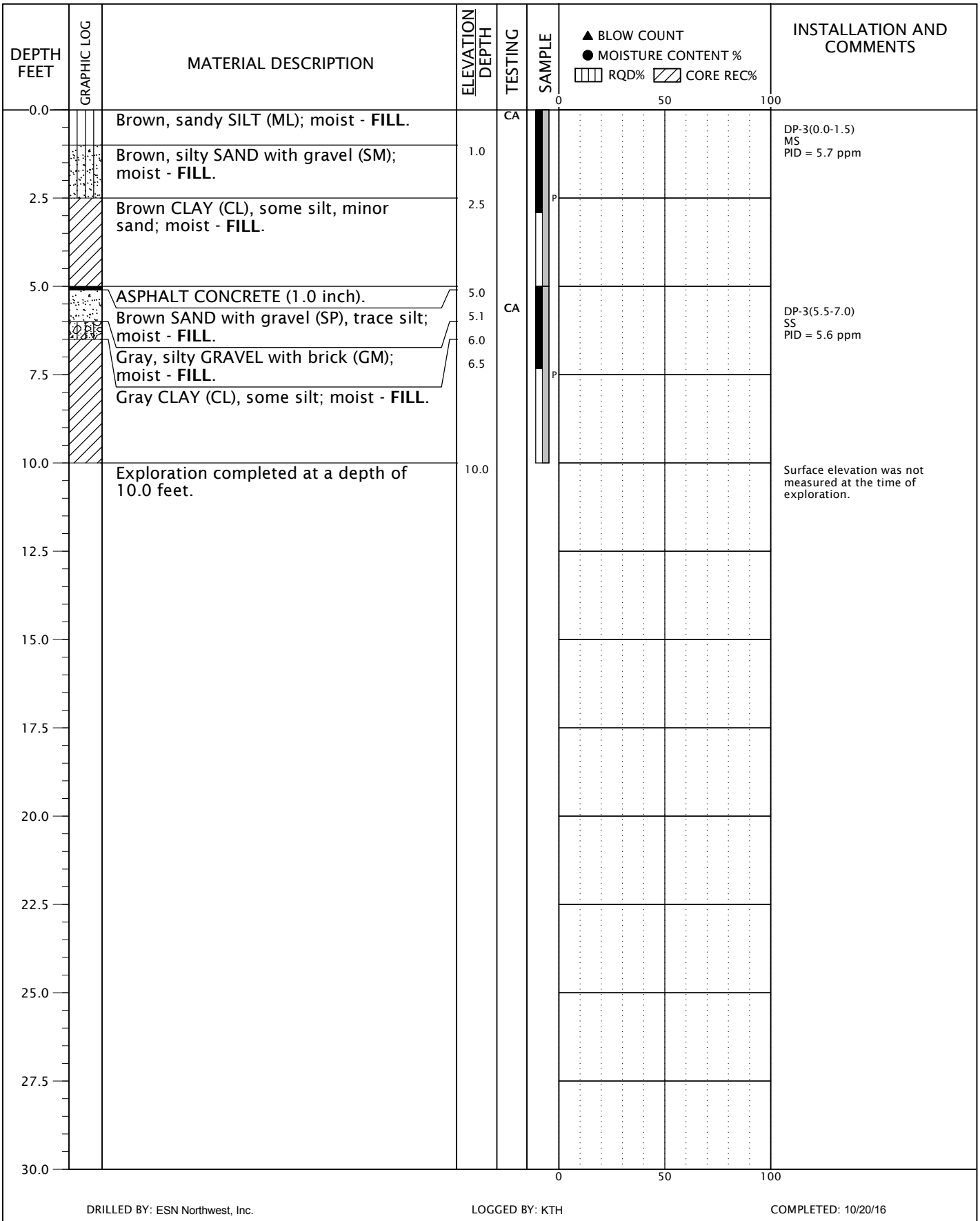
HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-2

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



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COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYTSTPROP-7-01

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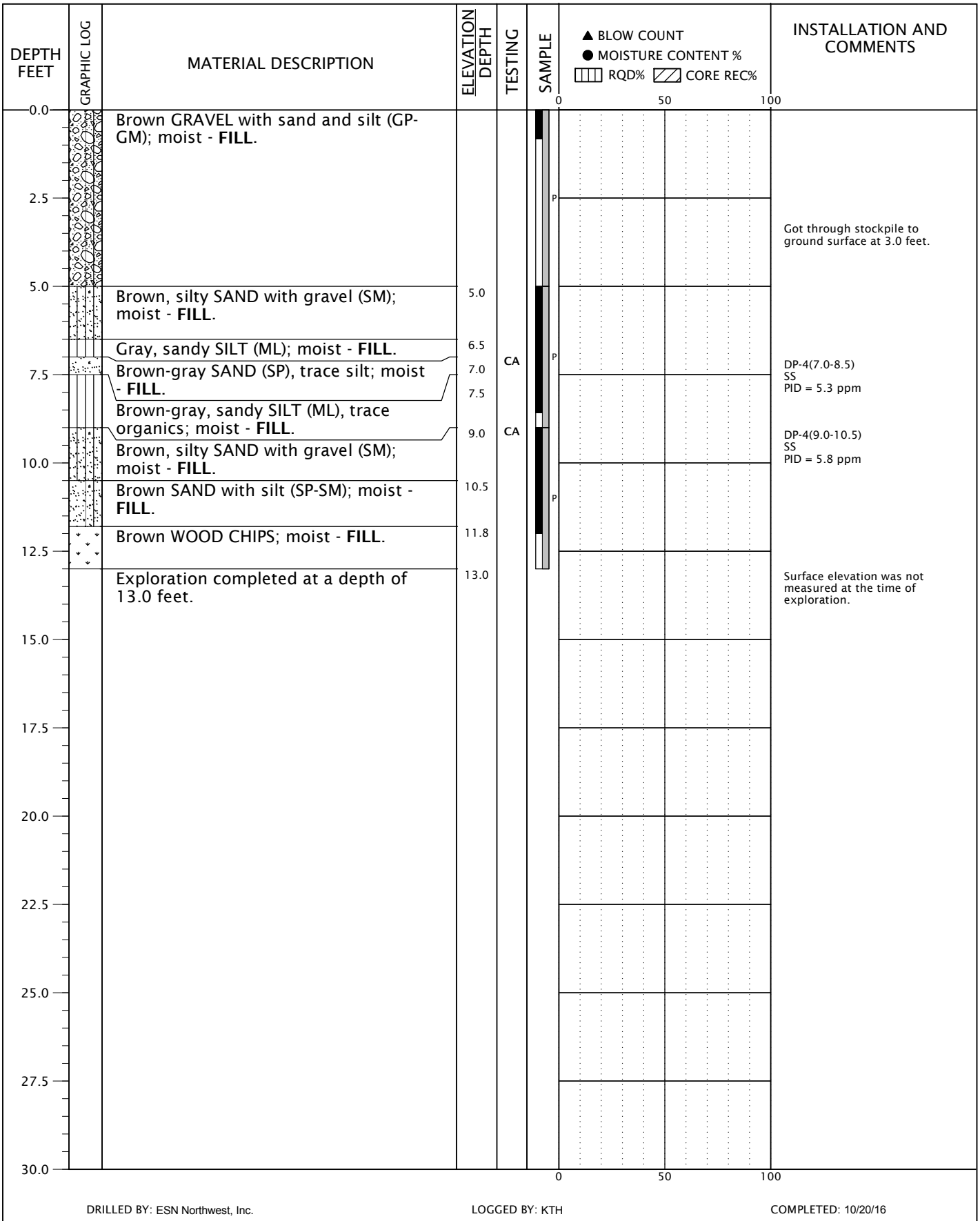
HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-3

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

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COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

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HOYT STREET PROPERTIES - BLOCK 29
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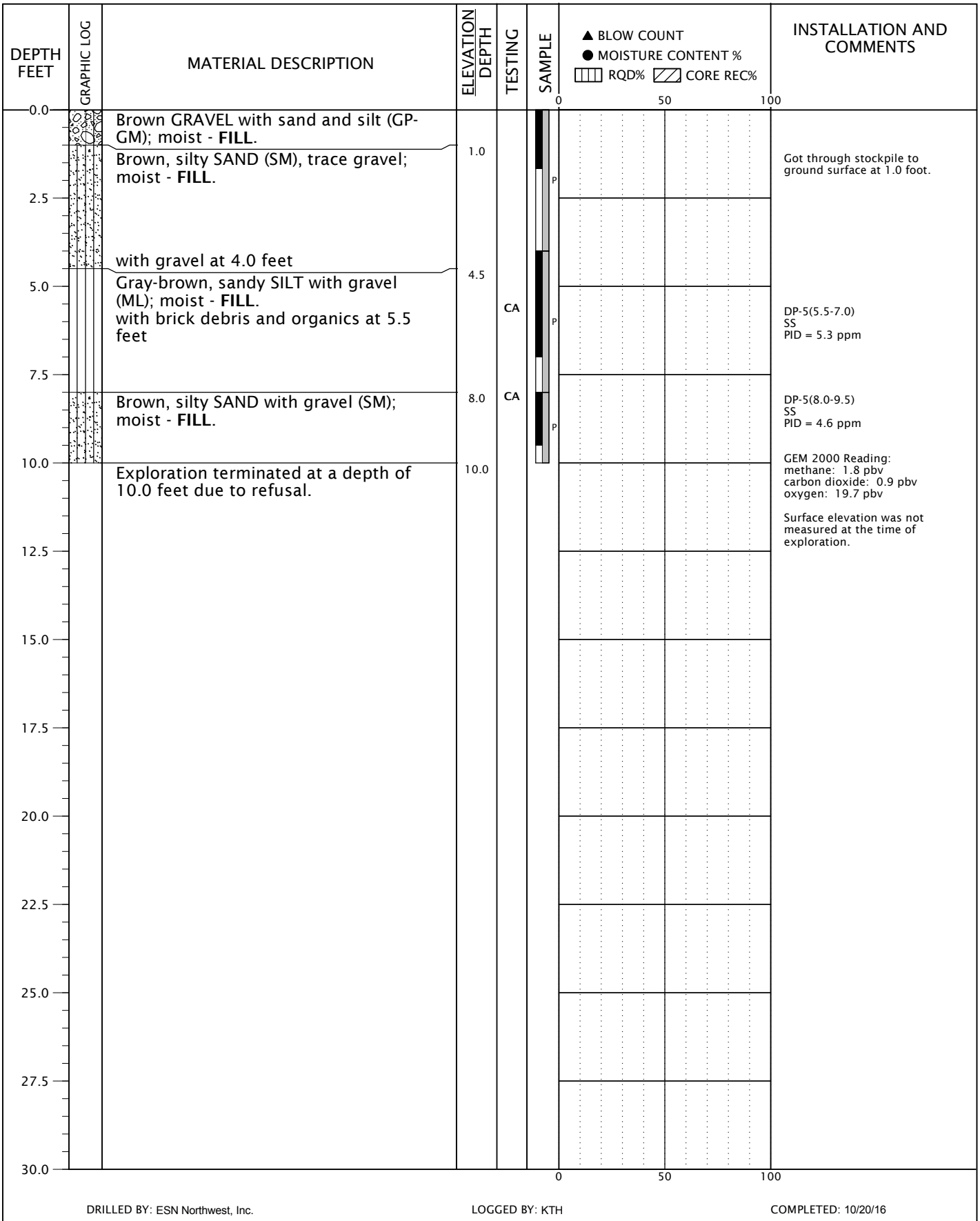
FIGURE A-4

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYT STREET PROPERTIES - BLOCK 29
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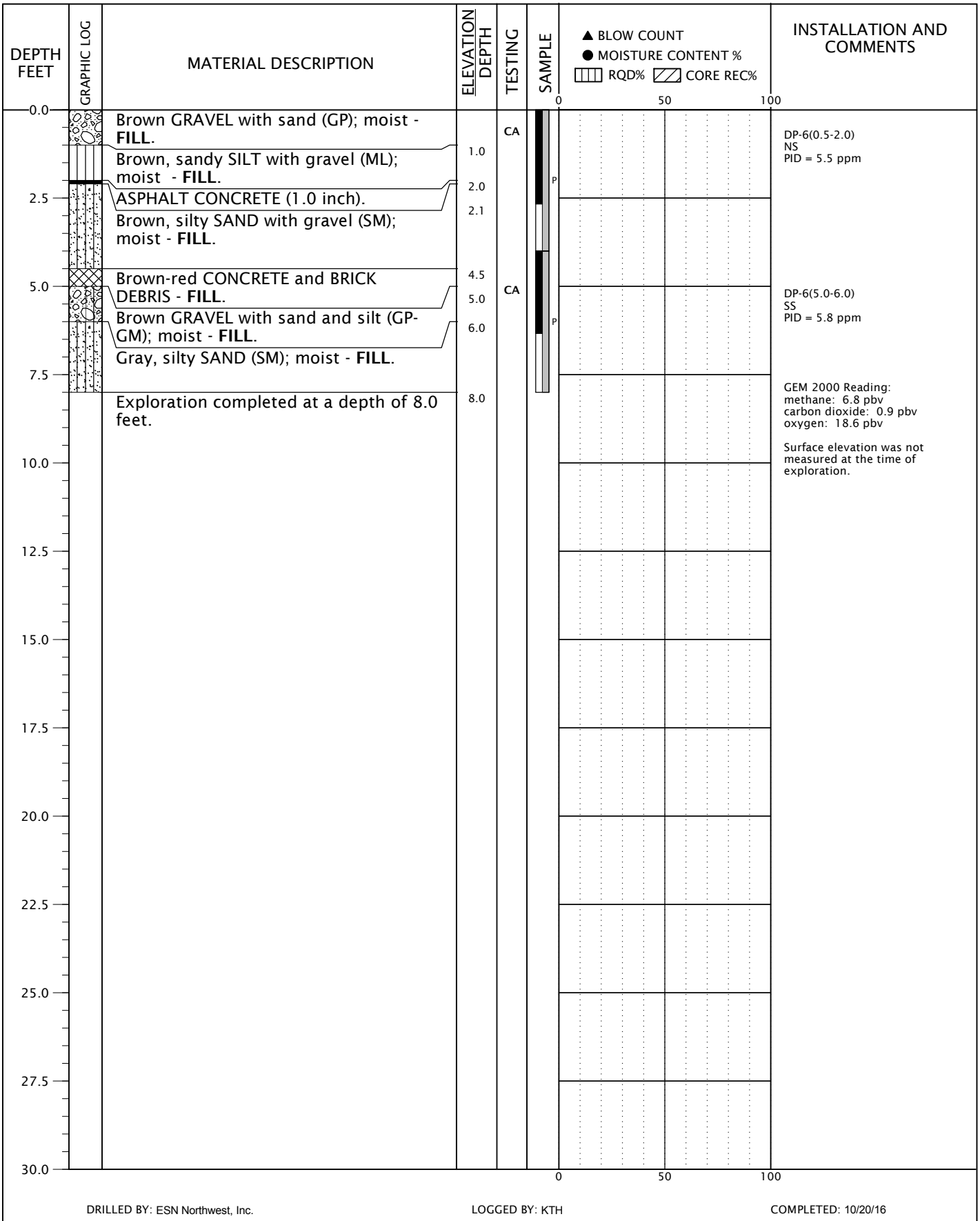
FIGURE A-5

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



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COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT

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HOYT STREET PROPERTIES - BLOCK 29
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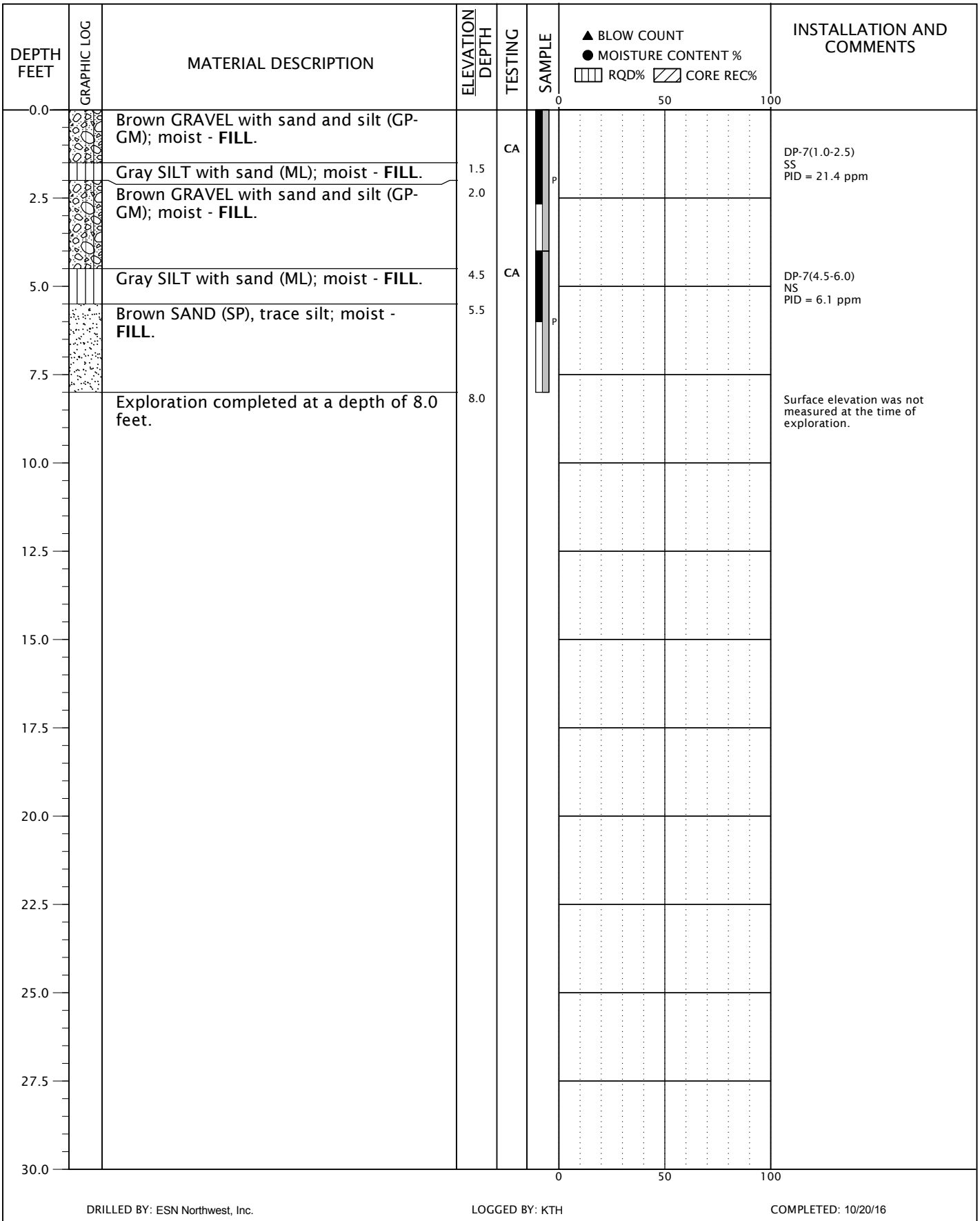
FIGURE A-6



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BORING BIT DIAMETER: 3 inches

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HOYT STREET PROPERTIES - BLOCK 29
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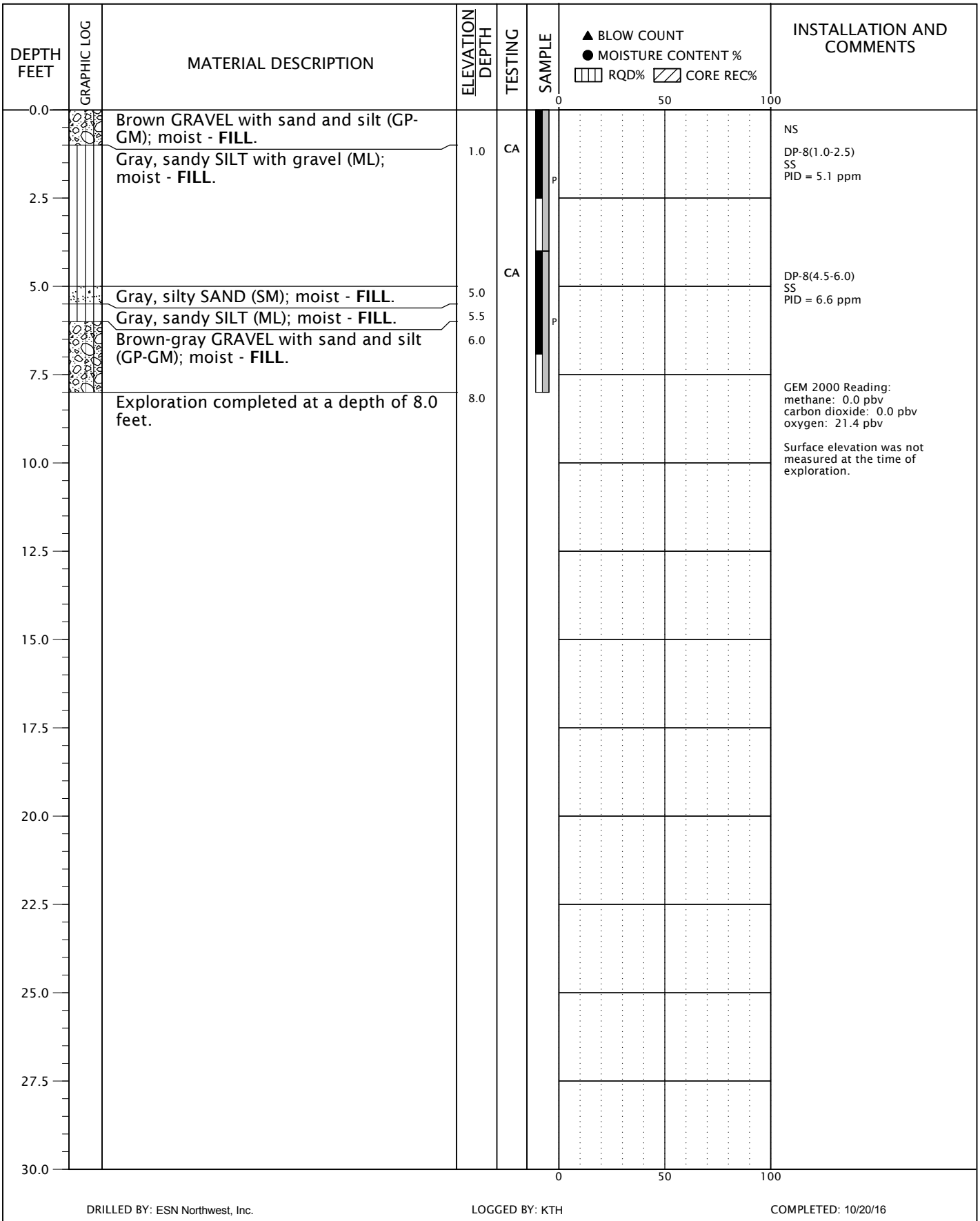
FIGURE A-7

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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BORING DP-8

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HOYT STREET PROPERTIES - BLOCK 29
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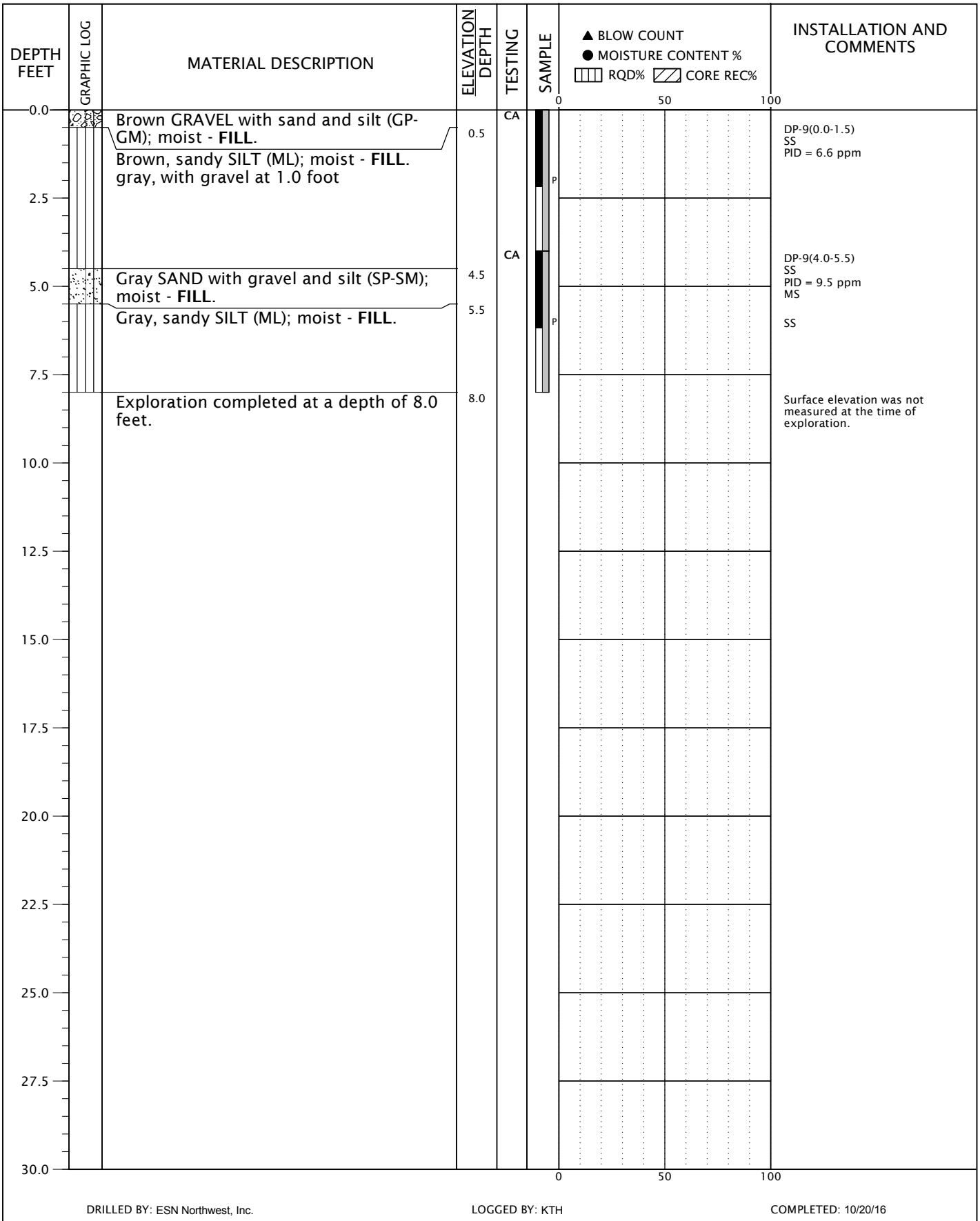
FIGURE A-8

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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BORING DP-9

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HOYT STREET PROPERTIES - BLOCK 29
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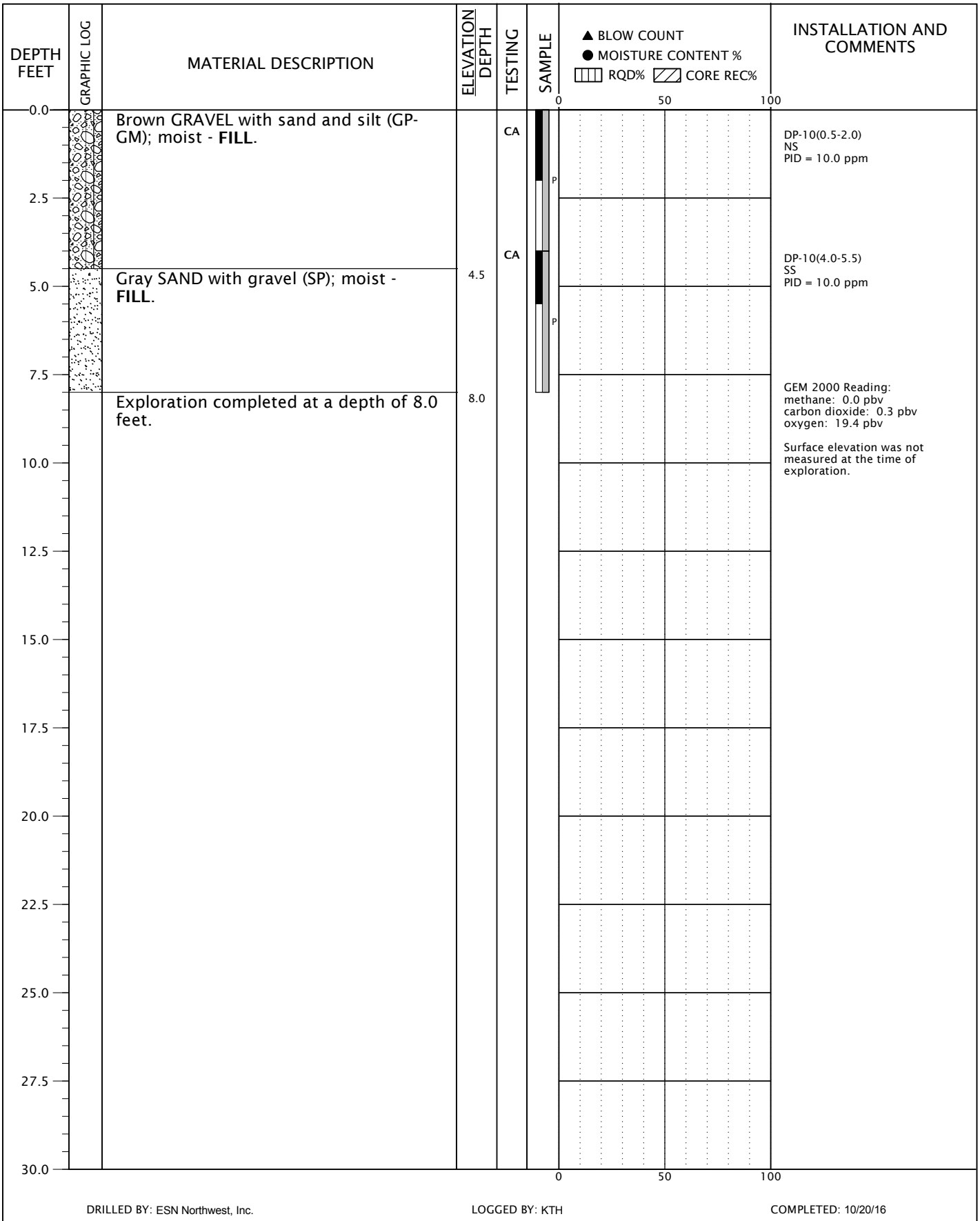
FIGURE A-9

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYTSTPROP-7-01

BORING DP-10

DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
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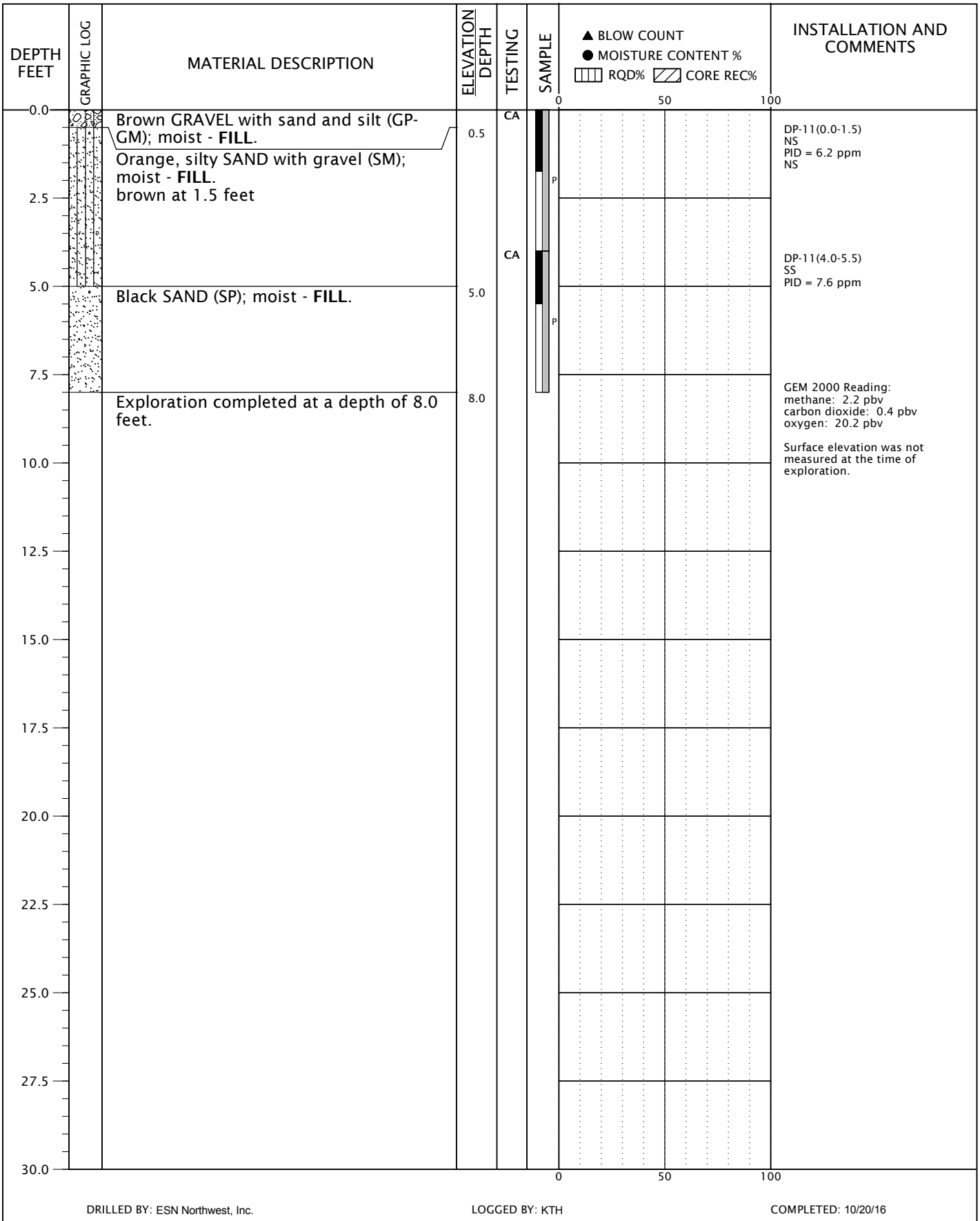
FIGURE A-10

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYTSTPROP-7-01

BORING DP-11

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HOYT STREET PROPERTIES - BLOCK 29
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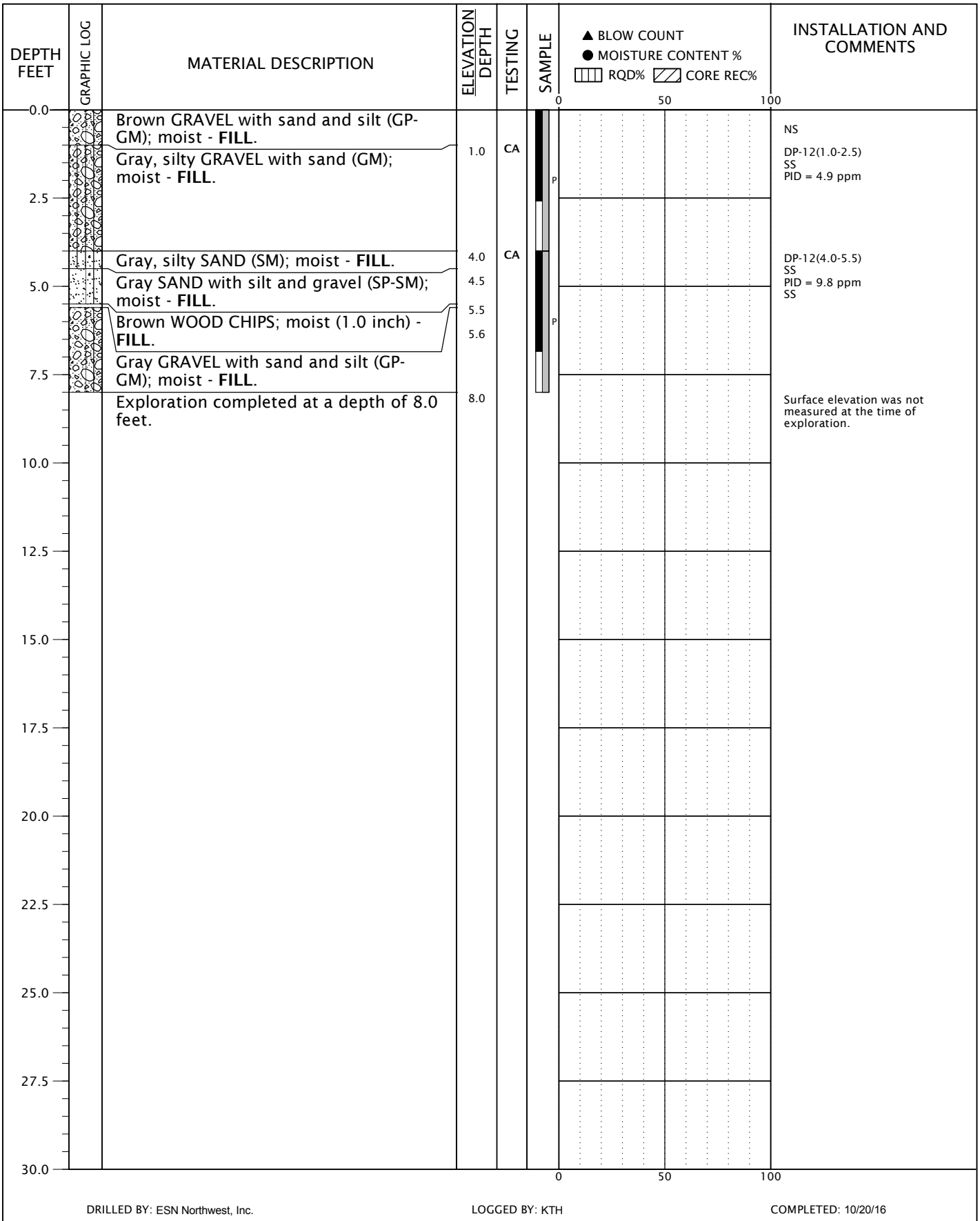
FIGURE A-11

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYTSTPROP-7-01

BORING DP-12

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HOYT STREET PROPERTIES - BLOCK 29
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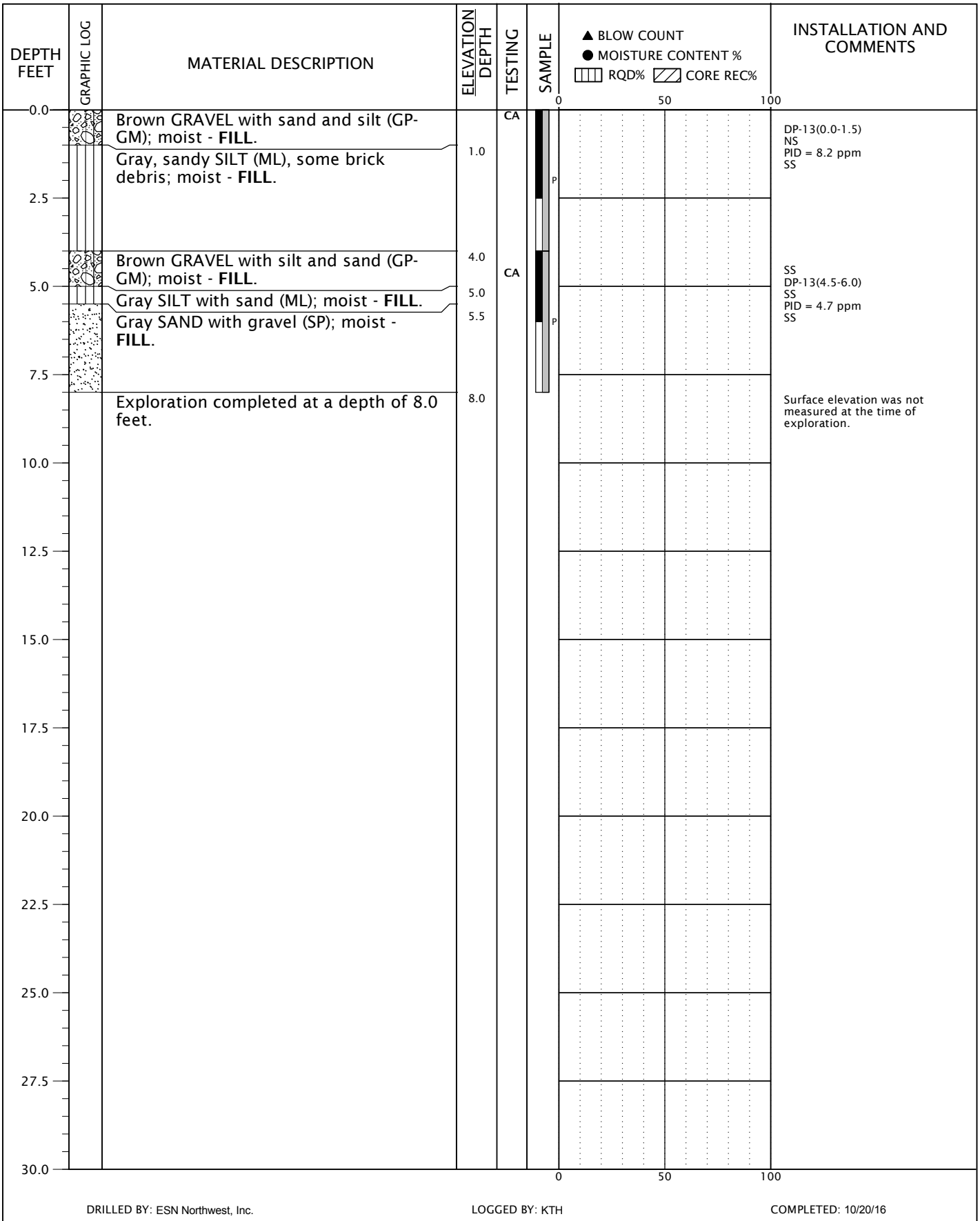
FIGURE A-12

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

HOYTSTPROP-7-01

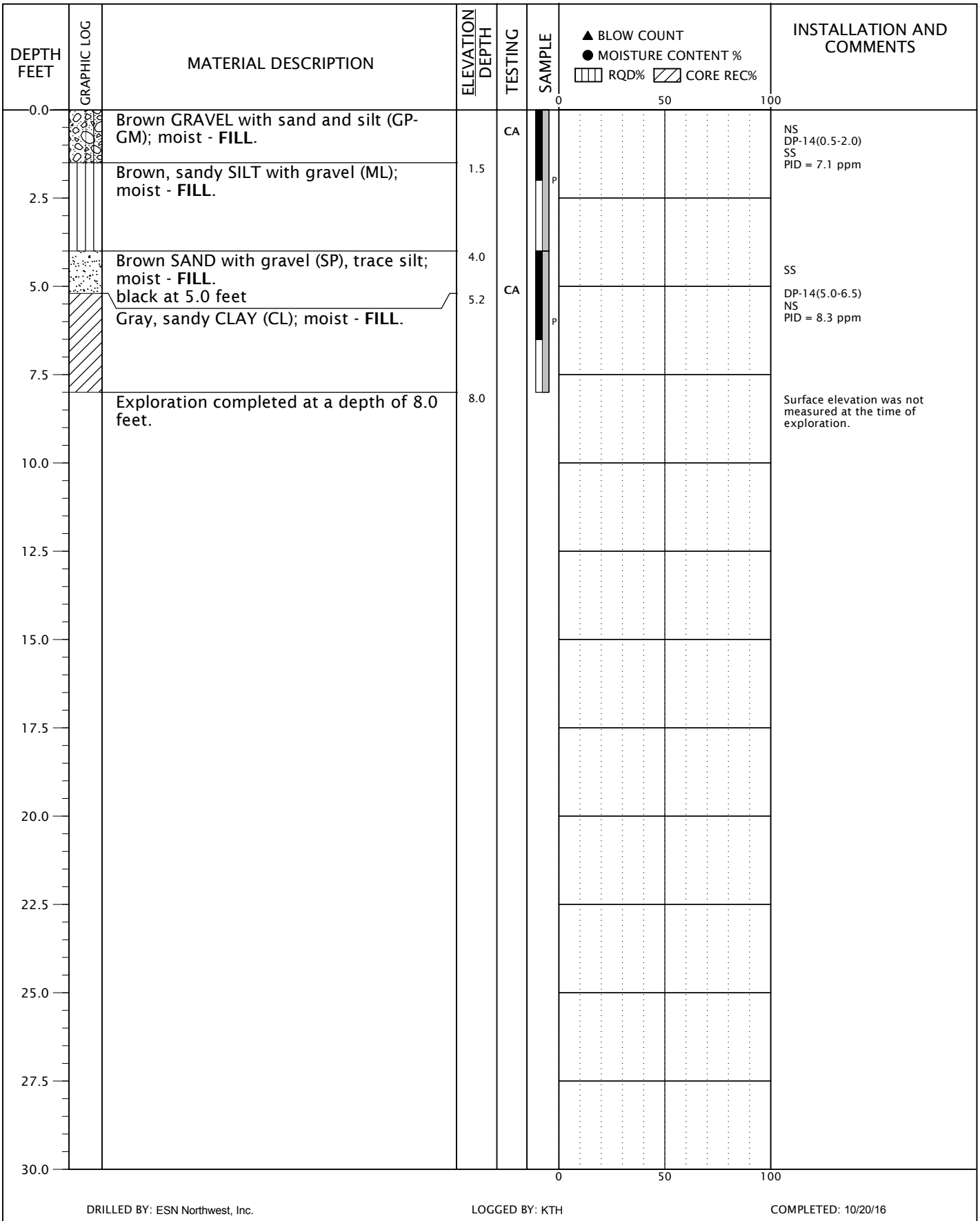
BORING DP-13

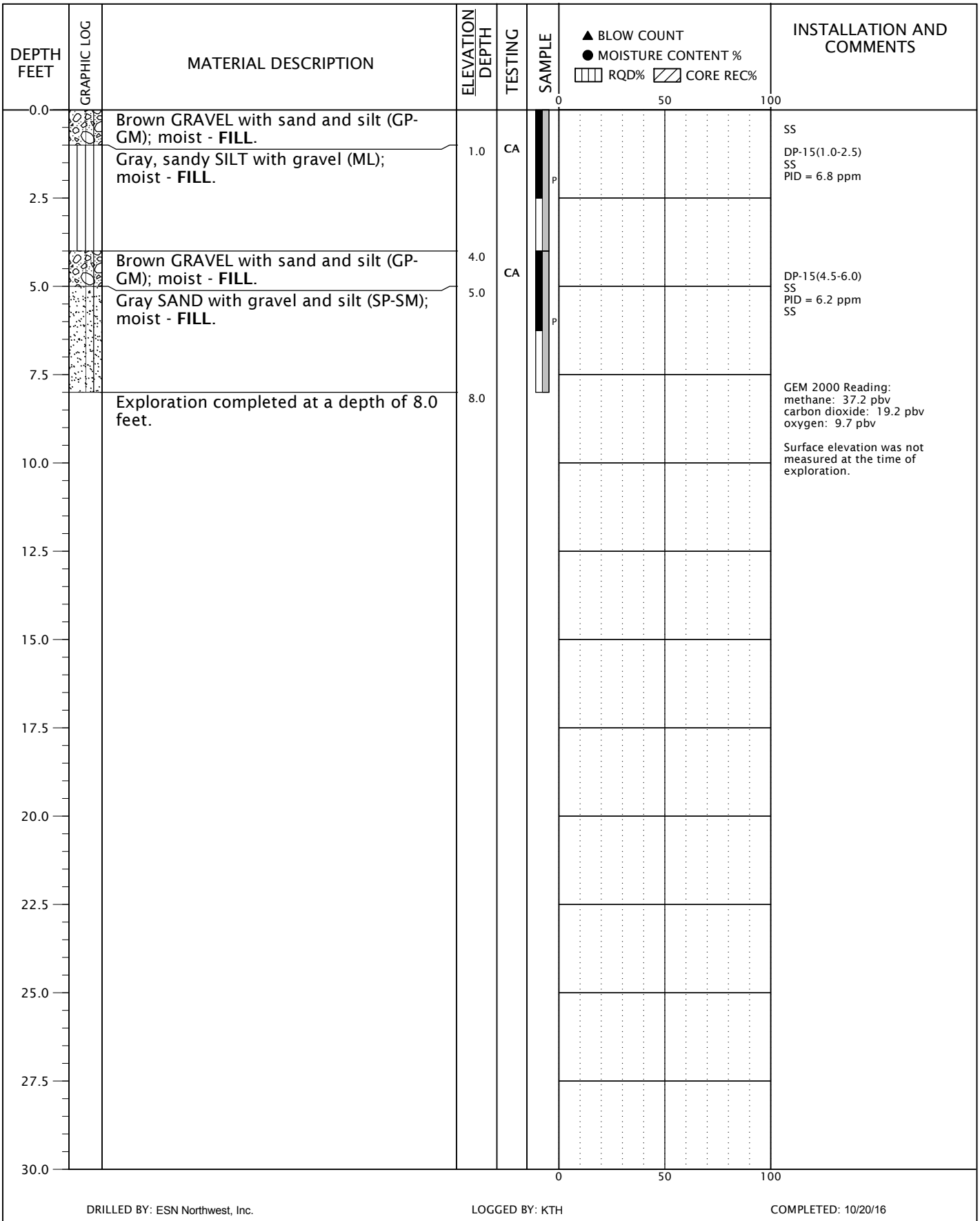
DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-13

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT


DEPTH FEET
GRAPHIC LOG
MATERIAL DESCRIPTION
ELEVATION DEPTH
TESTING
SAMPLE
▲ BLOW COUNT
● MOISTURE CONTENT %
RQD% CORE REC%
INSTALLATION AND COMMENTS
0
50
100
Brown GRAVEL with sand and silt (GP-GM); moist - FILL.
1.5
Brown, sandy SILT with gravel (ML); moist - FILL.
4.0
Brown SAND with gravel (SP), trace silt; moist - FILL.
black at 5.0 feet
5.2
Gray, sandy CLAY (CL); moist - FILL.
8.0
Exploration completed at a depth of 8.0 feet.
CA
CA
P
P
NS
DP-14(0.5-2.0)
SS
PID = 7.1 ppm
SS
DP-14(5.0-6.5)
NS
PID = 8.3 ppm
Surface elevation was not measured at the time of exploration.
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
22.5
25.0
27.5
30.0
DRILLED BY: ESN Northwest, Inc.
LOGGED BY: KTH
COMPLETED: 10/20/16
BORING METHOD: direct push (see document text)
BORING BIT DIAMETER: 3 inches
GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068
HOYTSTPROP-7-01
BORING DP-14
DECEMBER 2016
HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR
FIGURE A-14
BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

HOYTSTPROP-7-01

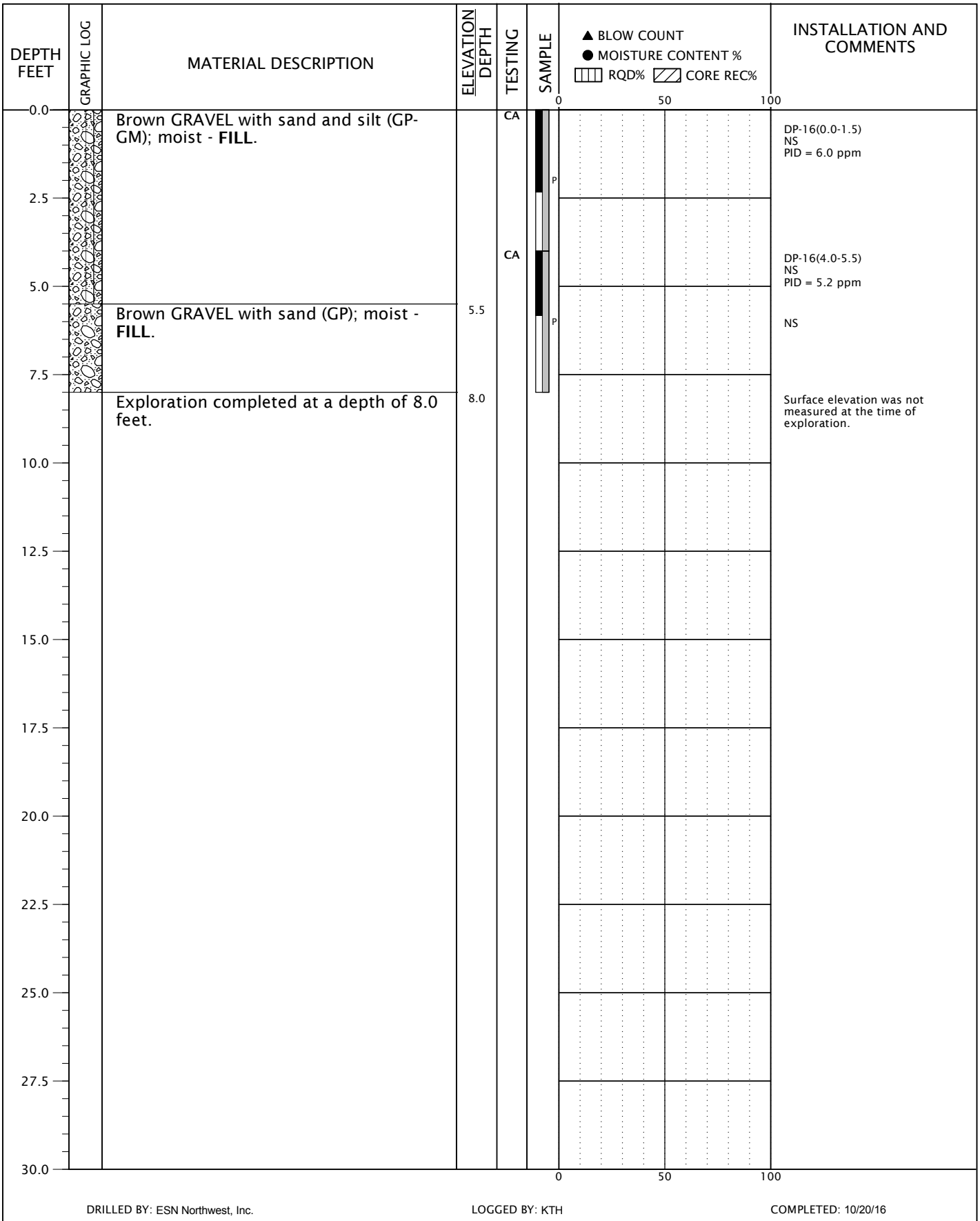
BORING DP-15

DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-15

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: KTH

COMPLETED: 10/20/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

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HOYTSTPROP-7-01

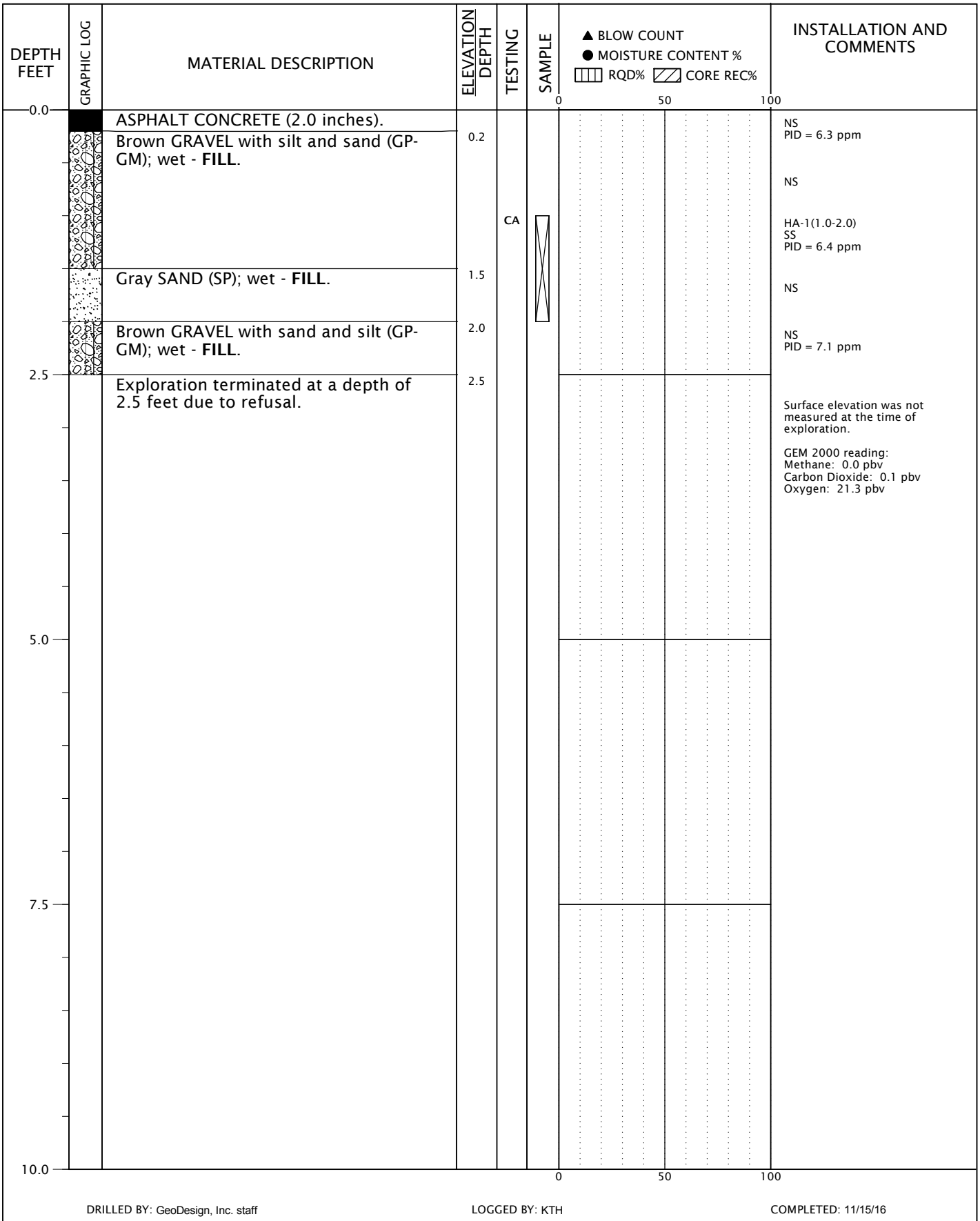
BORING DP-16

DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-16

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: GeoDesign, Inc. staff

LOGGED BY: KTH

COMPLETED: 11/15/16

BORING METHOD: hand auger (see document text)

BORING BIT DIAMETER: 2 1/2 inches

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HOYTSTPROP-7-01

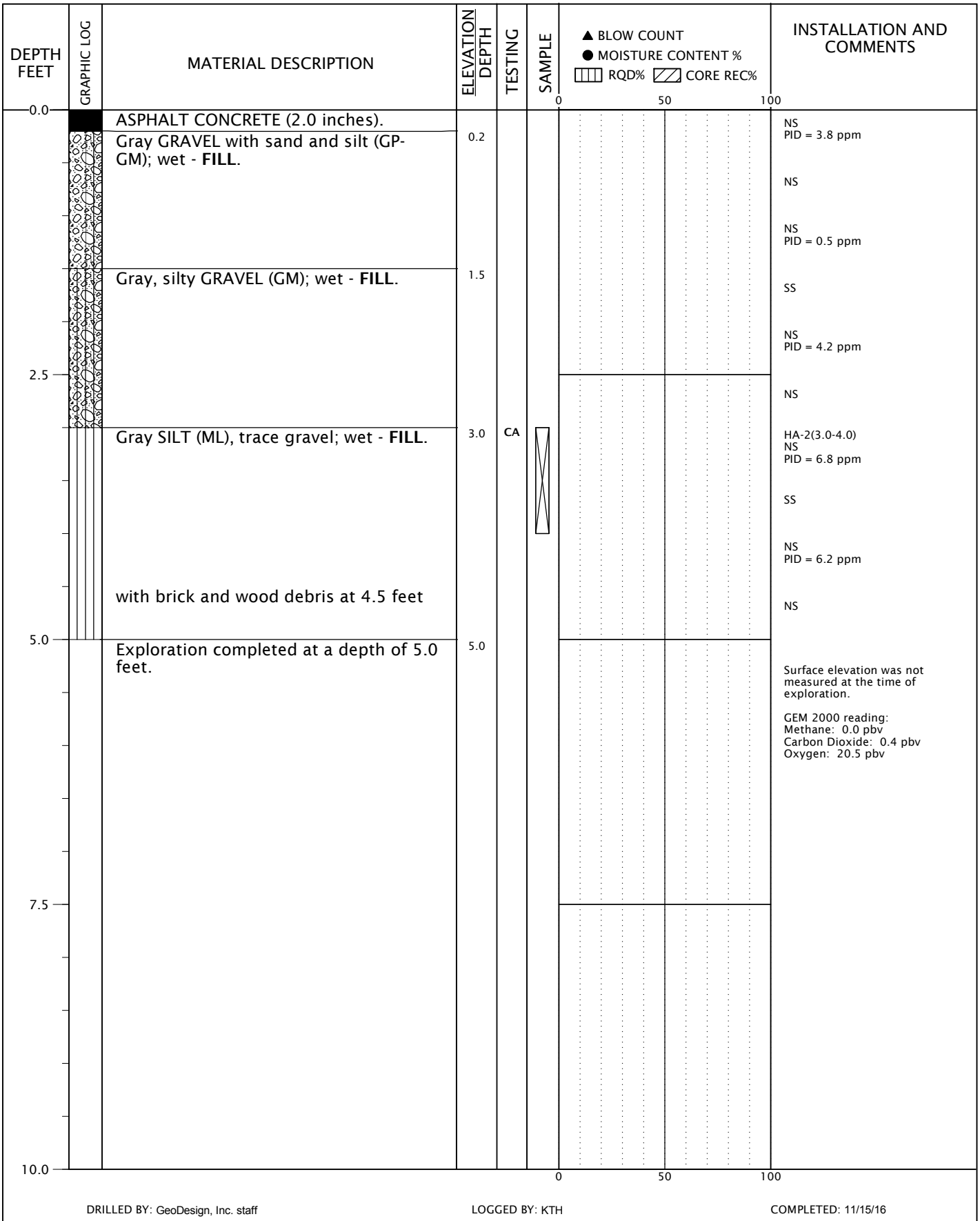
BORING HA-1

DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-17

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT



DRILLED BY: GeoDesign, Inc. staff

LOGGED BY: KTH

COMPLETED: 11/15/16

BORING METHOD: hand auger (see document text)

BORING BIT DIAMETER: 2 1/2 inches

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Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

HOYTSTPROP-7-01

BORING HA-2

DECEMBER 2016

HOYT STREET PROPERTIES - BLOCK 29
PORTLAND, OR

FIGURE A-18

BORING LOG HOYTSTPROP-7-01-DP1_16-HA1_2.GPJ GEODESIGN.GDT PRINT DATE: 12/2/16:RC:KT

APPENDIX B

APPENDIX B

CHEMICAL ANALYTICAL PROGRAM

GENERAL

Chain-of-custody procedures were followed during handling and transport of the soil samples to the analytical laboratory. The laboratory holds the samples in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference, and laboratory QC records are presented in this appendix. The analytical results also are summarized in the tables of this report.

REVIEW OF ANALYTICAL DATA

The analytical laboratories used for this project maintain an internal quality assurance programs consisting of a combination of the following:

Blanks: Blanks are laboratory-prepared water samples that are free of contaminants. The blanks are carried through the analysis procedure along with the field samples to document that contaminants were not introduced to the samples during sample handling and analysis.

Surrogate Recoveries: Surrogates are organic compounds that are similar in nature to the analytes of concern but are not normally found in nature. The surrogates are added to QC and field samples prior to analysis. The percent recovery of the surrogate is calculated to demonstrate acceptable method performance.

Duplicates: Duplicates are obtained by splitting a sample into two parts. The two separate parts are carried through the analyses. The analytical results are then compared by calculating the RPD between the samples.

MS/MSD Recoveries: An MS sample is a sample that has been split into a second portion. The MSD is obtained by further splitting the MS sample. A known concentration of the analyte of interest is added to the MS and MSD samples. The analytical results for both samples are then compared for RPD and percent recovery to demonstrate acceptable method performance.

BS/BSD Recoveries: BS and BSD samples are obtained and analyzed in the same procedure as the MS/MSD samples; however, the laboratory blank sample is used to obtain the BS/BSD samples. The percent recovery and RPD of the known concentration of analyte of interest added to the BS/BSD sample is calculated after chemical analyses to demonstrate acceptable method performance.

SUMMARY OF ANALYTICAL DATA REVIEW

GeoDesign reviewed the attached analytical data reports for data quality exceptions and deviations from acceptable method performance criteria. Based on our review of the analytical report, the analytical data appear acceptable for their intended use.

ANALYTICAL REPORT

November 02, 2016

GeoDesign Inc.

Sample Delivery Group:	L867608
Samples Received:	10/21/2016
Project Number:	HOYTSTPROP-7-01
Description:	Hoyt Street Properties - Block 29

Report To: Jeremy Zimber
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

DRUM-1 L867608-01 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 08:05
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:34	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 15:32	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	1	10/26/16 18:09	10/27/16 06:33	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	1	10/26/16 22:20	10/27/16 14:40	ACM
Total Solids by Method 2540 G-2011	WG919806	1	10/22/16 14:46	10/22/16 14:55	KDW

DP-2(11.0-12.5) L867608-03 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 09:10
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:42	NJB
Metals (ICP) by Method 6010B	WG920788	1	10/26/16 10:58	10/26/16 19:18	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	1	10/26/16 18:09	10/27/16 06:55	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	1	10/26/16 22:20	10/27/16 14:52	ACM
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-2(16.0-17.0) L867608-05 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 09:18
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:49	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 15:45	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	1	10/26/16 18:09	10/27/16 08:44	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	1	10/26/16 22:20	10/27/16 15:05	ACM
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-1(12.0-13.5) L867608-07 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 09:40
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:52	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 15:47	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	5	10/26/16 18:09	10/27/16 09:06	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	10	10/26/16 22:20	10/27/16 15:44	ACM
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-1(16.0-17.0) L867608-09 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 09:50
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:54	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 15:55	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	1	10/26/16 18:09	10/27/16 07:17	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	1	10/26/16 22:20	10/27/16 15:18	ACM
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-4(7.0-8.5) L867608-11 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:05
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:57	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 15:58	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920698	5	10/26/16 18:09	10/27/16 09:27	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG919941	10	10/26/16 22:20	10/27/16 15:56	ACM
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-4(9.0-10.5) L867608-13 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:10
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 12:59	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:01	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 19:15	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 19:54	DMG
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-5(5.5-7.0) L867608-15 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:30
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:02	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:03	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	5	10/27/16 15:46	11/01/16 15:59	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 18:41	DMG
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-5(8.0-9.5) L867608-17 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:35
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:05	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:06	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 19:40	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 20:11	DMG
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-3(0.0-1.5) L867608-19 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:50
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:07	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:09	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 20:05	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 20:27	DMG
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-3(5.5-7.0) L867608-21 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 10:55
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:10	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:12	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	1	10/27/16 15:46	11/02/16 09:54	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	1	10/28/16 05:41	10/28/16 15:48	DMG
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-6(0.5-2.0) L867608-23 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 11:20
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:12	NJB
Metals (ICP) by Method 6010B	WG920158	.8333333	10/24/16 12:18	10/25/16 16:14	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	10	10/27/16 15:46	11/01/16 17:13	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 20:47	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-6(5.0-6.0) L867608-25 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 11:30
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:22	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:17	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	5	10/27/16 15:46	11/01/16 16:24	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 17:01	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-7(1.0-2.5) L867608-27 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 11:45
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:25	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:20	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	2	10/27/16 15:46	11/01/16 13:56	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 19:35	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-7(4.5-6.0) L867608-29 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 11:50
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:28	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:28	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	2	10/27/16 15:46	11/01/16 14:21	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	1	10/28/16 05:41	10/28/16 16:08	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-8(1.0-2.5) L867608-31 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:05
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:30	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:30	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 18:51	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 21:03	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-8(4.5-6.0) L867608-33 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:10
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:33	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:33	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	10	10/27/16 15:46	11/01/16 17:37	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 18:58	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-9(0.0-1.5) L867608-35 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:25
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:35	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:36	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	10	10/27/16 15:46	11/01/16 18:02	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 21:20	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-9(4.0-5.5) L867608-37 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:30
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:38	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:38	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	10	10/27/16 15:46	11/01/16 18:26	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 21:39	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-10(0.5-2.0) L867608-39 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:45
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919714	1	10/22/16 06:32	10/26/16 13:40	NJB
Metals (ICP) by Method 6010B	WG920158	1	10/24/16 12:18	10/25/16 16:41	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	2	10/27/16 15:46	11/01/16 13:32	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 16:24	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-10(4.0-5.5) L867608-41 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 12:50
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:01	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:19	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	1	10/27/16 15:46	11/02/16 10:16	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	1	10/28/16 05:41	10/28/16 15:31	DMG
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-12(1.0-2.5) L867608-43 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:15
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:24	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:22	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	5	10/27/16 15:46	11/01/16 15:10	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 21:59	DMG
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-12(4.0-5.5) L867608-45 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:20
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:27	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:05	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	5	10/27/16 15:46	11/01/16 15:34	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 19:14	DMG
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-13(0.0-1.5) L867608-47 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:35
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:29	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:31	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 20:29	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 22:15	DMG
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-13(4.5-6.0) L867608-49 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:40
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:32	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:34	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	5	10/27/16 15:46	11/01/16 16:48	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	5	10/28/16 05:41	10/28/16 16:45	DMG
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-15(1.0-2.5) L867608-51 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:00
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:34	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:37	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG920699	20	10/27/16 15:46	11/01/16 20:54	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920314	20	10/28/16 05:41	10/28/16 22:32	DMG
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-15(4.5-6.0) L867608-53 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:05
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:37	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:40	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/27/16 19:17	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	1	10/27/16 08:55	10/27/16 17:33	ACM
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-11(0.0-1.5) L867608-55 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:20
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:45	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:43	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	10	10/26/16 20:52	10/27/16 23:59	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	10	10/27/16 08:55	10/28/16 00:15	ACM
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-11(4.0-5.5) L867608-57 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:25
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:47	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:45	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/27/16 23:16	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	2	10/27/16 08:55	10/27/16 23:00	ACM
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-14(0.5-2.0) L867608-59 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:35
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:50	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:48	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/28/16 10:13	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	2	10/27/16 08:55	10/27/16 23:20	ACM
Total Solids by Method 2540 G-2011	WG920177	1	10/24/16 11:05	10/24/16 11:16	MEL

DP-14(5.0-6.5) L867608-61 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:40
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:52	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:51	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/27/16 19:38	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	1	10/27/16 08:55	10/27/16 17:49	ACM
Total Solids by Method 2540 G-2011	WG920178	1	10/26/16 13:38	10/26/16 13:51	MEL

DP-16(0.0-1.5) L867608-63 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:55
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:55	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:54	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/27/16 20:00	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	1	10/27/16 08:55	10/28/16 13:57	DMG
Total Solids by Method 2540 G-2011	WG920178	1	10/26/16 13:38	10/26/16 13:51	MEL

DP-16(4.0-5.5) L867608-65 Solid

Collected by: Kyle Haggert
Collected date/time: 10/20/16 15:00
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG919715	1	10/22/16 06:18	10/26/16 10:57	NJB
Metals (ICP) by Method 6010B	WG920159	1	10/24/16 12:21	10/26/16 18:57	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG921086	1	10/26/16 20:52	10/27/16 20:22	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG920669	2	10/27/16 08:55	10/28/16 15:11	DMG
Total Solids by Method 2540 G-2011	WG920178	1	10/26/16 13:38	10/26/16 13:51	MEL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	10/22/2016 14:55	WG919806

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0346		0.0215	1	10/26/2016 12:34	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.15	1	10/25/2016 15:32	WG920158
Barium	168		0.537	1	10/25/2016 15:32	WG920158
Cadmium	ND		0.537	1	10/25/2016 15:32	WG920158
Chromium	24.9		1.07	1	10/25/2016 15:32	WG920158
Lead	20.3		0.537	1	10/25/2016 15:32	WG920158
Selenium	ND		2.15	1	10/25/2016 15:32	WG920158
Silver	ND		1.07	1	10/25/2016 15:32	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	9.59		4.30	1	10/27/2016 14:40	WG919941
Residual Range Organics (RRO)	36.6		10.7	1	10/27/2016 14:40	WG919941
(S) o-Terphenyl	*95.0*		*50.0-150*		*10/27/2016 14:40*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00644	1	10/27/2016 06:33	WG920698
Acenaphthene	ND		0.00644	1	10/27/2016 06:33	WG920698
Acenaphthylene	ND		0.00644	1	10/27/2016 06:33	WG920698
Benzo(a)anthracene	0.0116		0.00644	1	10/27/2016 06:33	WG920698
Benzo(a)pyrene	0.0129		0.00644	1	10/27/2016 06:33	WG920698
Benzo(b)fluoranthene	0.0155		0.00644	1	10/27/2016 06:33	WG920698
Benzo(g,h,i)perylene	0.0101		0.00644	1	10/27/2016 06:33	WG920698
Benzo(k)fluoranthene	0.00645		0.00644	1	10/27/2016 06:33	WG920698
Chrysene	0.0161		0.00644	1	10/27/2016 06:33	WG920698
Dibenz(a,h)anthracene	ND		0.00644	1	10/27/2016 06:33	WG920698
Fluoranthene	0.0265		0.00644	1	10/27/2016 06:33	WG920698
Fluorene	ND		0.00644	1	10/27/2016 06:33	WG920698
Indeno(1,2,3-cd)pyrene	0.00667		0.00644	1	10/27/2016 06:33	WG920698
Naphthalene	ND		0.0215	1	10/27/2016 06:33	WG920698
Phenanthrene	0.0257		0.00644	1	10/27/2016 06:33	WG920698
Pyrene	0.0300		0.00644	1	10/27/2016 06:33	WG920698
1-Methylnaphthalene	ND		0.0215	1	10/27/2016 06:33	WG920698
2-Methylnaphthalene	ND		0.0215	1	10/27/2016 06:33	WG920698
2-Chloronaphthalene	ND		0.0215	1	10/27/2016 06:33	WG920698
(S) Nitrobenzene-d5	*110*		*22.1-146*		*10/27/2016 06:33*	WG920698
(S) 2-Fluorobiphenyl	*74.7*		*40.6-122*		*10/27/2016 06:33*	WG920698
(S) p-Terphenyl-d14	*79.6*		*32.2-131*		*10/27/2016 06:33*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.0		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.343		0.0253	1	10/26/2016 12:42	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	4.23		2.53	1	10/26/2016 19:18	WG920788
Barium	171		0.633	1	10/26/2016 19:18	WG920788
Cadmium	ND		0.633	1	10/26/2016 19:18	WG920788
Chromium	20.0		1.27	1	10/26/2016 19:18	WG920788
Lead	62.7		0.633	1	10/26/2016 19:18	WG920788
Selenium	ND		2.53	1	10/26/2016 19:18	WG920788
Silver	ND		1.27	1	10/26/2016 19:18	WG920788

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		5.06	1	10/27/2016 14:52	WG919941
Residual Range Organics (RRO)	33.8		12.7	1	10/27/2016 14:52	WG919941
(S) o-Terphenyl	*95.1*		*50.0-150*		*10/27/2016 14:52*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00759	1	10/27/2016 06:55	WG920698
Acenaphthene	ND		0.00759	1	10/27/2016 06:55	WG920698
Acenaphthylene	ND		0.00759	1	10/27/2016 06:55	WG920698
Benzo(a)anthracene	ND		0.00759	1	10/27/2016 06:55	WG920698
Benzo(a)pyrene	0.0103		0.00759	1	10/27/2016 06:55	WG920698
Benzo(b)fluoranthene	0.0121		0.00759	1	10/27/2016 06:55	WG920698
Benzo(g,h,i)perylene	0.00994		0.00759	1	10/27/2016 06:55	WG920698
Benzo(k)fluoranthene	ND		0.00759	1	10/27/2016 06:55	WG920698
Chrysene	0.00788		0.00759	1	10/27/2016 06:55	WG920698
Dibenz(a,h)anthracene	ND		0.00759	1	10/27/2016 06:55	WG920698
Fluoranthene	0.0152		0.00759	1	10/27/2016 06:55	WG920698
Fluorene	ND		0.00759	1	10/27/2016 06:55	WG920698
Indeno(1,2,3-cd)pyrene	ND		0.00759	1	10/27/2016 06:55	WG920698
Naphthalene	ND		0.0253	1	10/27/2016 06:55	WG920698
Phenanthrene	ND		0.00759	1	10/27/2016 06:55	WG920698
Pyrene	0.0170		0.00759	1	10/27/2016 06:55	WG920698
1-Methylnaphthalene	ND		0.0253	1	10/27/2016 06:55	WG920698
2-Methylnaphthalene	ND		0.0253	1	10/27/2016 06:55	WG920698
2-Chloronaphthalene	ND		0.0253	1	10/27/2016 06:55	WG920698
(S) Nitrobenzene-d5	*125*		*22.1-146*		*10/27/2016 06:55*	WG920698
(S) 2-Fluorobiphenyl	*64.6*		*40.6-122*		*10/27/2016 06:55*	WG920698
(S) p-Terphenyl-d14	*73.7*		*32.2-131*		*10/27/2016 06:55*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	69.1		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.102		0.0289	1	10/26/2016 12:49	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.89	1	10/25/2016 15:45	WG920158
Barium	203		0.723	1	10/25/2016 15:45	WG920158
Cadmium	ND		0.723	1	10/25/2016 15:45	WG920158
Chromium	24.3		1.45	1	10/25/2016 15:45	WG920158
Lead	26.7		0.723	1	10/25/2016 15:45	WG920158
Selenium	ND		2.89	1	10/25/2016 15:45	WG920158
Silver	ND		1.45	1	10/25/2016 15:45	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	7.00		5.78	1	10/27/2016 15:05	WG919941
Residual Range Organics (RRO)	23.2		14.5	1	10/27/2016 15:05	WG919941
(S) o-Terphenyl	*92.6*		*50.0-150*		*10/27/2016 15:05*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00868	1	10/27/2016 08:44	WG920698
Acenaphthene	ND		0.00868	1	10/27/2016 08:44	WG920698
Acenaphthylene	ND		0.00868	1	10/27/2016 08:44	WG920698
Benzo(a)anthracene	ND		0.00868	1	10/27/2016 08:44	WG920698
Benzo(a)pyrene	0.0111		0.00868	1	10/27/2016 08:44	WG920698
Benzo(b)fluoranthene	0.00927		0.00868	1	10/27/2016 08:44	WG920698
Benzo(g,h,i)perylene	0.0137		0.00868	1	10/27/2016 08:44	WG920698
Benzo(k)fluoranthene	ND		0.00868	1	10/27/2016 08:44	WG920698
Chrysene	ND		0.00868	1	10/27/2016 08:44	WG920698
Dibenz(a,h)anthracene	ND		0.00868	1	10/27/2016 08:44	WG920698
Fluoranthene	0.0142		0.00868	1	10/27/2016 08:44	WG920698
Fluorene	ND		0.00868	1	10/27/2016 08:44	WG920698
Indeno(1,2,3-cd)pyrene	ND		0.00868	1	10/27/2016 08:44	WG920698
Naphthalene	ND		0.0289	1	10/27/2016 08:44	WG920698
Phenanthrene	0.0122		0.00868	1	10/27/2016 08:44	WG920698
Pyrene	0.0162		0.00868	1	10/27/2016 08:44	WG920698
1-Methylnaphthalene	ND		0.0289	1	10/27/2016 08:44	WG920698
2-Methylnaphthalene	ND		0.0289	1	10/27/2016 08:44	WG920698
2-Chloronaphthalene	ND		0.0289	1	10/27/2016 08:44	WG920698
(S) Nitrobenzene-d5	*110*		*22.1-146*		*10/27/2016 08:44*	WG920698
(S) 2-Fluorobiphenyl	*76.6*		*40.6-122*		*10/27/2016 08:44*	WG920698
(S) p-Terphenyl-d14	*82.1*		*32.2-131*		*10/27/2016 08:44*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.117		0.0220	1	10/26/2016 12:52	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.20	1	10/25/2016 15:47	WG920158
Barium	101		0.549	1	10/25/2016 15:47	WG920158
Cadmium	0.698		0.549	1	10/25/2016 15:47	WG920158
Chromium	17.5		1.10	1	10/25/2016 15:47	WG920158
Lead	226		0.549	1	10/25/2016 15:47	WG920158
Selenium	ND		2.20	1	10/25/2016 15:47	WG920158
Silver	ND		1.10	1	10/25/2016 15:47	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	149		43.9	10	10/27/2016 15:44	WG919941
Residual Range Organics (RRO)	408		110	10	10/27/2016 15:44	WG919941
(S) o-Terphenyl	*139*		*50.0-150*		*10/27/2016 15:44*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.695		0.0329	5	10/27/2016 09:06	WG920698
Acenaphthene	0.474		0.0329	5	10/27/2016 09:06	WG920698
Acenaphthylene	ND		0.0329	5	10/27/2016 09:06	WG920698
Benzo(a)anthracene	1.08		0.0329	5	10/27/2016 09:06	WG920698
Benzo(a)pyrene	0.968		0.0329	5	10/27/2016 09:06	WG920698
Benzo(b)fluoranthene	1.01		0.0329	5	10/27/2016 09:06	WG920698
Benzo(g,h,i)perylene	0.521		0.0329	5	10/27/2016 09:06	WG920698
Benzo(k)fluoranthene	0.247		0.0329	5	10/27/2016 09:06	WG920698
Chrysene	1.18		0.0329	5	10/27/2016 09:06	WG920698
Dibenz(a,h)anthracene	0.132		0.0329	5	10/27/2016 09:06	WG920698
Fluoranthene	2.31		0.0329	5	10/27/2016 09:06	WG920698
Fluorene	0.340		0.0329	5	10/27/2016 09:06	WG920698
Indeno(1,2,3-cd)pyrene	0.406		0.0329	5	10/27/2016 09:06	WG920698
Naphthalene	ND		0.110	5	10/27/2016 09:06	WG920698
Phenanthrene	2.76		0.0329	5	10/27/2016 09:06	WG920698
Pyrene	2.61		0.0329	5	10/27/2016 09:06	WG920698
1-Methylnaphthalene	ND		0.110	5	10/27/2016 09:06	WG920698
2-Methylnaphthalene	ND		0.110	5	10/27/2016 09:06	WG920698
2-Chloronaphthalene	ND		0.110	5	10/27/2016 09:06	WG920698
(S) Nitrobenzene-d5	*136*		*22.1-146*		*10/27/2016 09:06*	WG920698
(S) 2-Fluorobiphenyl	*75.0*		*40.6-122*		*10/27/2016 09:06*	WG920698
(S) p-Terphenyl-d14	*78.7*		*32.2-131*		*10/27/2016 09:06*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.3		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.252		0.0266	1	10/26/2016 12:54	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.76		2.66	1	10/25/2016 15:55	WG920158
Barium	197		0.664	1	10/25/2016 15:55	WG920158
Cadmium	ND		0.664	1	10/25/2016 15:55	WG920158
Chromium	25.4		1.33	1	10/25/2016 15:55	WG920158
Lead	110		0.664	1	10/25/2016 15:55	WG920158
Selenium	ND		2.66	1	10/25/2016 15:55	WG920158
Silver	ND		1.33	1	10/25/2016 15:55	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	6.50		5.31	1	10/27/2016 15:18	WG919941
Residual Range Organics (RRO)	17.2		13.3	1	10/27/2016 15:18	WG919941
(S) o-Terphenyl	*88.9*		*50.0-150*		*10/27/2016 15:18*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00797	1	10/27/2016 07:17	WG920698
Acenaphthene	ND		0.00797	1	10/27/2016 07:17	WG920698
Acenaphthylene	0.0105		0.00797	1	10/27/2016 07:17	WG920698
Benzo(a)anthracene	0.0291		0.00797	1	10/27/2016 07:17	WG920698
Benzo(a)pyrene	0.0291		0.00797	1	10/27/2016 07:17	WG920698
Benzo(b)fluoranthene	0.0311		0.00797	1	10/27/2016 07:17	WG920698
Benzo(g,h,i)perylene	0.0182		0.00797	1	10/27/2016 07:17	WG920698
Benzo(k)fluoranthene	0.00934		0.00797	1	10/27/2016 07:17	WG920698
Chrysene	0.0385		0.00797	1	10/27/2016 07:17	WG920698
Dibenz(a,h)anthracene	ND		0.00797	1	10/27/2016 07:17	WG920698
Fluoranthene	0.0389		0.00797	1	10/27/2016 07:17	WG920698
Fluorene	ND		0.00797	1	10/27/2016 07:17	WG920698
Indeno(1,2,3-cd)pyrene	0.0135		0.00797	1	10/27/2016 07:17	WG920698
Naphthalene	0.0282		0.0266	1	10/27/2016 07:17	WG920698
Phenanthrene	0.0196		0.00797	1	10/27/2016 07:17	WG920698
Pyrene	0.0517		0.00797	1	10/27/2016 07:17	WG920698
1-Methylnaphthalene	ND		0.0266	1	10/27/2016 07:17	WG920698
2-Methylnaphthalene	ND		0.0266	1	10/27/2016 07:17	WG920698
2-Chloronaphthalene	ND		0.0266	1	10/27/2016 07:17	WG920698
(S) Nitrobenzene-d5	*126*		*22.1-146*		*10/27/2016 07:17*	WG920698
(S) 2-Fluorobiphenyl	*83.9*		*40.6-122*		*10/27/2016 07:17*	WG920698
(S) p-Terphenyl-d14	*88.1*		*32.2-131*		*10/27/2016 07:17*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.365		0.0235	1	10/26/2016 12:57	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.35	1	10/25/2016 15:58	WG920158
Barium	162		0.587	1	10/25/2016 15:58	WG920158
Cadmium	ND		0.587	1	10/25/2016 15:58	WG920158
Chromium	19.6		1.17	1	10/25/2016 15:58	WG920158
Lead	138		0.587	1	10/25/2016 15:58	WG920158
Selenium	ND		2.35	1	10/25/2016 15:58	WG920158
Silver	ND		1.17	1	10/25/2016 15:58	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	53.8		47.0	10	10/27/2016 15:56	WG919941
Residual Range Organics (RRO)	205		117	10	10/27/2016 15:56	WG919941
(S) o-Terphenyl	*125*		*50.0-150*		*10/27/2016 15:56*	WG919941

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0352	5	10/27/2016 09:27	WG920698
Acenaphthene	ND		0.0352	5	10/27/2016 09:27	WG920698
Acenaphthylene	ND		0.0352	5	10/27/2016 09:27	WG920698
Benzo(a)anthracene	0.0679		0.0352	5	10/27/2016 09:27	WG920698
Benzo(a)pyrene	0.0842		0.0352	5	10/27/2016 09:27	WG920698
Benzo(b)fluoranthene	0.0847		0.0352	5	10/27/2016 09:27	WG920698
Benzo(g,h,i)perylene	0.0869		0.0352	5	10/27/2016 09:27	WG920698
Benzo(k)fluoranthene	ND		0.0352	5	10/27/2016 09:27	WG920698
Chrysene	0.0844		0.0352	5	10/27/2016 09:27	WG920698
Dibenz(a,h)anthracene	ND		0.0352	5	10/27/2016 09:27	WG920698
Fluoranthene	0.161		0.0352	5	10/27/2016 09:27	WG920698
Fluorene	ND		0.0352	5	10/27/2016 09:27	WG920698
Indeno(1,2,3-cd)pyrene	0.0532		0.0352	5	10/27/2016 09:27	WG920698
Naphthalene	0.123		0.117	5	10/27/2016 09:27	WG920698
Phenanthrene	0.128		0.0352	5	10/27/2016 09:27	WG920698
Pyrene	0.183		0.0352	5	10/27/2016 09:27	WG920698
1-Methylnaphthalene	ND		0.117	5	10/27/2016 09:27	WG920698
2-Methylnaphthalene	ND		0.117	5	10/27/2016 09:27	WG920698
2-Chloronaphthalene	ND		0.117	5	10/27/2016 09:27	WG920698
(S) Nitrobenzene-d5	*129*		*22.1-146*		*10/27/2016 09:27*	WG920698
(S) 2-Fluorobiphenyl	*79.9*		*40.6-122*		*10/27/2016 09:27*	WG920698
(S) p-Terphenyl-d14	*79.6*		*32.2-131*		*10/27/2016 09:27*	WG920698

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.160		0.0219	1	10/26/2016 12:59	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.19	1	10/25/2016 16:01	WG920158
Barium	112		0.549	1	10/25/2016 16:01	WG920158
Cadmium	0.892		0.549	1	10/25/2016 16:01	WG920158
Chromium	21.8		1.10	1	10/25/2016 16:01	WG920158
Lead	174		0.549	1	10/25/2016 16:01	WG920158
Selenium	ND		2.19	1	10/25/2016 16:01	WG920158
Silver	ND		1.10	1	10/25/2016 16:01	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	233		87.8	20	10/28/2016 19:54	WG920314
Residual Range Organics (RRO)	1550		219	20	10/28/2016 19:54	WG920314
(S) o-Terphenyl	*53.4*	J7	*50.0-150*		*10/28/2016 19:54*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.132	20	11/01/2016 19:15	WG920699
Acenaphthene	ND		0.132	20	11/01/2016 19:15	WG920699
Acenaphthylene	ND		0.132	20	11/01/2016 19:15	WG920699
Benzo(a)anthracene	0.136		0.132	20	11/01/2016 19:15	WG920699
Benzo(a)pyrene	0.144	J3	0.132	20	11/01/2016 19:15	WG920699
Benzo(b)fluoranthene	0.231		0.132	20	11/01/2016 19:15	WG920699
Benzo(g,h,i)perylene	0.177		0.132	20	11/01/2016 19:15	WG920699
Benzo(k)fluoranthene	ND		0.132	20	11/01/2016 19:15	WG920699
Chrysene	0.296		0.132	20	11/01/2016 19:15	WG920699
Dibenz(a,h)anthracene	ND		0.132	20	11/01/2016 19:15	WG920699
Fluoranthene	0.331		0.132	20	11/01/2016 19:15	WG920699
Fluorene	ND		0.132	20	11/01/2016 19:15	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.132	20	11/01/2016 19:15	WG920699
Naphthalene	ND		0.439	20	11/01/2016 19:15	WG920699
Phenanthrene	0.407		0.132	20	11/01/2016 19:15	WG920699
Pyrene	0.467		0.132	20	11/01/2016 19:15	WG920699
1-Methylnaphthalene	ND		0.439	20	11/01/2016 19:15	WG920699
2-Methylnaphthalene	ND		0.439	20	11/01/2016 19:15	WG920699
2-Chloronaphthalene	ND		0.439	20	11/01/2016 19:15	WG920699
(S) Nitrobenzene-d5	*64.5*	J7	*22.1-146*		*11/01/2016 19:15*	WG920699
(S) 2-Fluorobiphenyl	*69.8*	J7	*40.6-122*		*11/01/2016 19:15*	WG920699
(S) p-Terphenyl-d14	*71.7*	J7	*32.2-131*		*11/01/2016 19:15*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.364		0.0232	1	10/26/2016 13:02	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.32	1	10/25/2016 16:03	WG920158
Barium	214		0.580	1	10/25/2016 16:03	WG920158
Cadmium	ND		0.580	1	10/25/2016 16:03	WG920158
Chromium	20.8		1.16	1	10/25/2016 16:03	WG920158
Lead	156		0.580	1	10/25/2016 16:03	WG920158
Selenium	ND		2.32	1	10/25/2016 16:03	WG920158
Silver	ND		1.16	1	10/25/2016 16:03	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	102		23.2	5	10/28/2016 18:41	WG920314
Residual Range Organics (RRO)	386		58.0	5	10/28/2016 18:41	WG920314
(S) o-Terphenyl	*66.9*		*50.0-150*		*10/28/2016 18:41*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0348	5	11/01/2016 15:59	WG920699
Acenaphthene	ND		0.0348	5	11/01/2016 15:59	WG920699
Acenaphthylene	ND		0.0348	5	11/01/2016 15:59	WG920699
Benzo(a)anthracene	0.0813		0.0348	5	11/01/2016 15:59	WG920699
Benzo(a)pyrene	0.0846	J3	0.0348	5	11/01/2016 15:59	WG920699
Benzo(b)fluoranthene	0.113		0.0348	5	11/01/2016 15:59	WG920699
Benzo(g,h,i)perylene	0.0847		0.0348	5	11/01/2016 15:59	WG920699
Benzo(k)fluoranthene	ND		0.0348	5	11/01/2016 15:59	WG920699
Chrysene	0.0859		0.0348	5	11/01/2016 15:59	WG920699
Dibenz(a,h)anthracene	ND		0.0348	5	11/01/2016 15:59	WG920699
Fluoranthene	0.122		0.0348	5	11/01/2016 15:59	WG920699
Fluorene	ND		0.0348	5	11/01/2016 15:59	WG920699
Indeno(1,2,3-cd)pyrene	0.0576		0.0348	5	11/01/2016 15:59	WG920699
Naphthalene	ND		0.116	5	11/01/2016 15:59	WG920699
Phenanthrene	0.0535		0.0348	5	11/01/2016 15:59	WG920699
Pyrene	0.130		0.0348	5	11/01/2016 15:59	WG920699
1-Methylnaphthalene	ND		0.116	5	11/01/2016 15:59	WG920699
2-Methylnaphthalene	ND		0.116	5	11/01/2016 15:59	WG920699
2-Chloronaphthalene	ND		0.116	5	11/01/2016 15:59	WG920699
(S) Nitrobenzene-d5	*78.1*		*22.1-146*		*11/01/2016 15:59*	WG920699
(S) 2-Fluorobiphenyl	*78.7*		*40.6-122*		*11/01/2016 15:59*	WG920699
(S) p-Terphenyl-d14	*79.2*		*32.2-131*		*11/01/2016 15:59*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0869		0.0223	1	10/26/2016 13:05	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.23	1	10/25/2016 16:06	WG920158
Barium	123		0.557	1	10/25/2016 16:06	WG920158
Cadmium	ND		0.557	1	10/25/2016 16:06	WG920158
Chromium	17.1		1.11	1	10/25/2016 16:06	WG920158
Lead	44.3		0.557	1	10/25/2016 16:06	WG920158
Selenium	ND		2.23	1	10/25/2016 16:06	WG920158
Silver	ND		1.11	1	10/25/2016 16:06	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	99.1		89.1	20	10/28/2016 20:11	WG920314
Residual Range Organics (RRO)	1040		223	20	10/28/2016 20:11	WG920314
(S) o-Terphenyl	*68.1*	J7	*50.0-150*		*10/28/2016 20:11*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.134	20	11/01/2016 19:40	WG920699
Acenaphthene	ND		0.134	20	11/01/2016 19:40	WG920699
Acenaphthylene	ND		0.134	20	11/01/2016 19:40	WG920699
Benzo(a)anthracene	ND		0.134	20	11/01/2016 19:40	WG920699
Benzo(a)pyrene	ND	J3	0.134	20	11/01/2016 19:40	WG920699
Benzo(b)fluoranthene	ND		0.134	20	11/01/2016 19:40	WG920699
Benzo(g,h,i)perylene	ND		0.134	20	11/01/2016 19:40	WG920699
Benzo(k)fluoranthene	ND		0.134	20	11/01/2016 19:40	WG920699
Chrysene	0.146		0.134	20	11/01/2016 19:40	WG920699
Dibenz(a,h)anthracene	ND		0.134	20	11/01/2016 19:40	WG920699
Fluoranthene	0.166		0.134	20	11/01/2016 19:40	WG920699
Fluorene	ND		0.134	20	11/01/2016 19:40	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.134	20	11/01/2016 19:40	WG920699
Naphthalene	ND		0.446	20	11/01/2016 19:40	WG920699
Phenanthrene	ND		0.134	20	11/01/2016 19:40	WG920699
Pyrene	0.234		0.134	20	11/01/2016 19:40	WG920699
1-Methylnaphthalene	ND		0.446	20	11/01/2016 19:40	WG920699
2-Methylnaphthalene	ND		0.446	20	11/01/2016 19:40	WG920699
2-Chloronaphthalene	ND		0.446	20	11/01/2016 19:40	WG920699
(S) Nitrobenzene-d5	*76.0*	J7	*22.1-146*		*11/01/2016 19:40*	WG920699
(S) 2-Fluorobiphenyl	*88.0*	J7	*40.6-122*		*11/01/2016 19:40*	WG920699
(S) p-Terphenyl-d14	*92.2*	J7	*32.2-131*		*11/01/2016 19:40*	WG920699

Sample Narrative:

8270D-SIM L867608-17 WG920699: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0225	1	10/26/2016 13:07	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.25	1	10/25/2016 16:09	WG920158
Barium	119		0.562	1	10/25/2016 16:09	WG920158
Cadmium	ND		0.562	1	10/25/2016 16:09	WG920158
Chromium	15.2		1.12	1	10/25/2016 16:09	WG920158
Lead	25.4		0.562	1	10/25/2016 16:09	WG920158
Selenium	ND		2.25	1	10/25/2016 16:09	WG920158
Silver	ND		1.12	1	10/25/2016 16:09	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		90.0	20	10/28/2016 20:27	WG920314
Residual Range Organics (RRO)	522		225	20	10/28/2016 20:27	WG920314
(S) o-Terphenyl	*77.3*	J7	*50.0-150*		*10/28/2016 20:27*	WG920314

Sample Narrative:

NWTPHDX L867608-19 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.135	20	11/01/2016 20:05	WG920699
Acenaphthene	ND		0.135	20	11/01/2016 20:05	WG920699
Acenaphthylene	ND		0.135	20	11/01/2016 20:05	WG920699
Benzo(a)anthracene	ND		0.135	20	11/01/2016 20:05	WG920699
Benzo(a)pyrene	ND	J3	0.135	20	11/01/2016 20:05	WG920699
Benzo(b)fluoranthene	ND		0.135	20	11/01/2016 20:05	WG920699
Benzo(g,h,i)perylene	ND		0.135	20	11/01/2016 20:05	WG920699
Benzo(k)fluoranthene	ND		0.135	20	11/01/2016 20:05	WG920699
Chrysene	ND		0.135	20	11/01/2016 20:05	WG920699
Dibenz(a,h)anthracene	ND		0.135	20	11/01/2016 20:05	WG920699
Fluoranthene	ND		0.135	20	11/01/2016 20:05	WG920699
Fluorene	ND		0.135	20	11/01/2016 20:05	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.135	20	11/01/2016 20:05	WG920699
Naphthalene	ND		0.450	20	11/01/2016 20:05	WG920699
Phenanthrene	ND		0.135	20	11/01/2016 20:05	WG920699
Pyrene	ND		0.135	20	11/01/2016 20:05	WG920699
1-Methylnaphthalene	ND		0.450	20	11/01/2016 20:05	WG920699
2-Methylnaphthalene	ND		0.450	20	11/01/2016 20:05	WG920699
2-Chloronaphthalene	ND		0.450	20	11/01/2016 20:05	WG920699
(S) Nitrobenzene-d5	*62.2*	J7	*22.1-146*		*11/01/2016 20:05*	WG920699
(S) 2-Fluorobiphenyl	*88.7*	J7	*40.6-122*		*11/01/2016 20:05*	WG920699
(S) p-Terphenyl-d14	*94.1*	J7	*32.2-131*		*11/01/2016 20:05*	WG920699

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	

Sample Narrative:

8270D-SIM L867608-19 WG920699: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	10/24/2016 10:59	WG920171

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.349		0.0253	1	10/26/2016 13:10	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.53	1	10/25/2016 16:12	WG920158
Barium	151		0.631	1	10/25/2016 16:12	WG920158
Cadmium	ND		0.631	1	10/25/2016 16:12	WG920158
Chromium	21.3		1.26	1	10/25/2016 16:12	WG920158
Lead	25.8		0.631	1	10/25/2016 16:12	WG920158
Selenium	ND		2.53	1	10/25/2016 16:12	WG920158
Silver	ND		1.26	1	10/25/2016 16:12	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	14.1		5.05	1	10/28/2016 15:48	WG920314
Residual Range Organics (RRO)	67.7		12.6	1	10/28/2016 15:48	WG920314
(S) o-Terphenyl	*60.1*		*50.0-150*		*10/28/2016 15:48*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0187		0.00758	1	11/02/2016 09:54	WG920699
Acenaphthene	0.0234		0.00758	1	11/02/2016 09:54	WG920699
Acenaphthylene	ND		0.00758	1	11/02/2016 09:54	WG920699
Benzo(a)anthracene	0.0177		0.00758	1	11/02/2016 09:54	WG920699
Benzo(a)pyrene	0.0165	J3	0.00758	1	11/02/2016 09:54	WG920699
Benzo(b)fluoranthene	0.0187		0.00758	1	11/02/2016 09:54	WG920699
Benzo(g,h,i)perylene	0.0132		0.00758	1	11/02/2016 09:54	WG920699
Benzo(k)fluoranthene	ND		0.00758	1	11/02/2016 09:54	WG920699
Chrysene	0.0233		0.00758	1	11/02/2016 09:54	WG920699
Dibenz(a,h)anthracene	ND		0.00758	1	11/02/2016 09:54	WG920699
Fluoranthene	0.0426		0.00758	1	11/02/2016 09:54	WG920699
Fluorene	0.0230		0.00758	1	11/02/2016 09:54	WG920699
Indeno(1,2,3-cd)pyrene	0.00961		0.00758	1	11/02/2016 09:54	WG920699
Naphthalene	0.0275		0.0253	1	11/02/2016 09:54	WG920699
Phenanthrene	0.0478		0.00758	1	11/02/2016 09:54	WG920699
Pyrene	0.0511		0.00758	1	11/02/2016 09:54	WG920699
1-Methylnaphthalene	ND		0.0253	1	11/02/2016 09:54	WG920699
2-Methylnaphthalene	ND		0.0253	1	11/02/2016 09:54	WG920699
2-Chloronaphthalene	ND		0.0253	1	11/02/2016 09:54	WG920699
(S) Nitrobenzene-d5	*99.9*		*22.1-146*		*11/02/2016 09:54*	WG920699
(S) 2-Fluorobiphenyl	*91.9*		*40.6-122*		*11/02/2016 09:54*	WG920699
(S) p-Terphenyl-d14	*85.9*		*32.2-131*		*11/02/2016 09:54*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0418		0.0218	1	10/26/2016 13:12	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		1.82	.8333333	10/25/2016 16:14	WG920158
Barium	72.2		0.455	.8333333	10/25/2016 16:14	WG920158
Cadmium	ND		0.455	.8333333	10/25/2016 16:14	WG920158
Chromium	9.14		0.910	.8333333	10/25/2016 16:14	WG920158
Lead	25.6		0.455	.8333333	10/25/2016 16:14	WG920158
Selenium	ND		1.82	.8333333	10/25/2016 16:14	WG920158
Silver	ND		0.910	.8333333	10/25/2016 16:14	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	125		87.4	20	10/28/2016 20:47	WG920314
Residual Range Organics (RRO)	1500		218	20	10/28/2016 20:47	WG920314
(S) o-Terphenyl	*59.7*	J7	*50.0-150*		*10/28/2016 20:47*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0655	10	11/01/2016 17:13	WG920699
Acenaphthene	ND		0.0655	10	11/01/2016 17:13	WG920699
Acenaphthylene	ND		0.0655	10	11/01/2016 17:13	WG920699
Benzo(a)anthracene	0.117		0.0655	10	11/01/2016 17:13	WG920699
Benzo(a)pyrene	0.121	J3	0.0655	10	11/01/2016 17:13	WG920699
Benzo(b)fluoranthene	0.151		0.0655	10	11/01/2016 17:13	WG920699
Benzo(g,h,i)perylene	0.156		0.0655	10	11/01/2016 17:13	WG920699
Benzo(k)fluoranthene	ND		0.0655	10	11/01/2016 17:13	WG920699
Chrysene	0.145		0.0655	10	11/01/2016 17:13	WG920699
Dibenz(a,h)anthracene	ND		0.0655	10	11/01/2016 17:13	WG920699
Fluoranthene	0.215		0.0655	10	11/01/2016 17:13	WG920699
Fluorene	ND		0.0655	10	11/01/2016 17:13	WG920699
Indeno(1,2,3-cd)pyrene	0.0821		0.0655	10	11/01/2016 17:13	WG920699
Naphthalene	ND		0.218	10	11/01/2016 17:13	WG920699
Phenanthrene	0.177		0.0655	10	11/01/2016 17:13	WG920699
Pyrene	0.237		0.0655	10	11/01/2016 17:13	WG920699
1-Methylnaphthalene	ND		0.218	10	11/01/2016 17:13	WG920699
2-Methylnaphthalene	ND		0.218	10	11/01/2016 17:13	WG920699
2-Chloronaphthalene	ND		0.218	10	11/01/2016 17:13	WG920699
(S) Nitrobenzene-d5	*64.9*		*22.1-146*		*11/01/2016 17:13*	WG920699
(S) 2-Fluorobiphenyl	*82.1*		*40.6-122*		*11/01/2016 17:13*	WG920699
(S) p-Terphenyl-d14	*72.5*		*32.2-131*		*11/01/2016 17:13*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0873		0.0237	1	10/26/2016 13:22	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.37	1	10/25/2016 16:17	WG920158
Barium	110		0.593	1	10/25/2016 16:17	WG920158
Cadmium	ND		0.593	1	10/25/2016 16:17	WG920158
Chromium	35.5		1.19	1	10/25/2016 16:17	WG920158
Lead	153		0.593	1	10/25/2016 16:17	WG920158
Selenium	ND		2.37	1	10/25/2016 16:17	WG920158
Silver	ND		1.19	1	10/25/2016 16:17	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	30.7		23.7	5	10/28/2016 17:01	WG920314
Residual Range Organics (RRO)	233		59.3	5	10/28/2016 17:01	WG920314
(S) o-Terphenyl	*71.6*		*50.0-150*		*10/28/2016 17:01*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.340		0.0356	5	11/01/2016 16:24	WG920699
Acenaphthene	0.0711		0.0356	5	11/01/2016 16:24	WG920699
Acenaphthylene	ND		0.0356	5	11/01/2016 16:24	WG920699
Benzo(a)anthracene	0.541		0.0356	5	11/01/2016 16:24	WG920699
Benzo(a)pyrene	0.337	J3	0.0356	5	11/01/2016 16:24	WG920699
Benzo(b)fluoranthene	0.271		0.0356	5	11/01/2016 16:24	WG920699
Benzo(g,h,i)perylene	0.140		0.0356	5	11/01/2016 16:24	WG920699
Benzo(k)fluoranthene	ND		0.0356	5	11/01/2016 16:24	WG920699
Chrysene	0.604		0.0356	5	11/01/2016 16:24	WG920699
Dibenz(a,h)anthracene	0.0528		0.0356	5	11/01/2016 16:24	WG920699
Fluoranthene	0.509		0.0356	5	11/01/2016 16:24	WG920699
Fluorene	0.217		0.0356	5	11/01/2016 16:24	WG920699
Indeno(1,2,3-cd)pyrene	0.0752		0.0356	5	11/01/2016 16:24	WG920699
Naphthalene	ND		0.119	5	11/01/2016 16:24	WG920699
Phenanthrene	1.17		0.0356	5	11/01/2016 16:24	WG920699
Pyrene	1.11		0.0356	5	11/01/2016 16:24	WG920699
1-Methylnaphthalene	ND		0.119	5	11/01/2016 16:24	WG920699
2-Methylnaphthalene	0.198		0.119	5	11/01/2016 16:24	WG920699
2-Chloronaphthalene	ND		0.119	5	11/01/2016 16:24	WG920699
(S) Nitrobenzene-d5	*81.3*		*22.1-146*		*11/01/2016 16:24*	WG920699
(S) 2-Fluorobiphenyl	*77.0*		*40.6-122*		*11/01/2016 16:24*	WG920699
(S) p-Terphenyl-d14	*82.8*		*32.2-131*		*11/01/2016 16:24*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.2		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0965		0.0259	1	10/26/2016 13:25	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.59	1	10/25/2016 16:20	WG920158
Barium	187		0.648	1	10/25/2016 16:20	WG920158
Cadmium	ND		0.648	1	10/25/2016 16:20	WG920158
Chromium	23.1		1.30	1	10/25/2016 16:20	WG920158
Lead	265		0.648	1	10/25/2016 16:20	WG920158
Selenium	ND		2.59	1	10/25/2016 16:20	WG920158
Silver	ND		1.30	1	10/25/2016 16:20	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		104	20	10/28/2016 19:35	WG920314
Residual Range Organics (RRO)	449		259	20	10/28/2016 19:35	WG920314
(S) o-Terphenyl	*95.6*	J7	*50.0-150*		*10/28/2016 19:35*	WG920314

Sample Narrative:

NWTPHDX L867608-27 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0344		0.0155	2	11/01/2016 13:56	WG920699
Acenaphthene	0.0217		0.0155	2	11/01/2016 13:56	WG920699
Acenaphthylene	ND		0.0155	2	11/01/2016 13:56	WG920699
Benzo(a)anthracene	0.0792		0.0155	2	11/01/2016 13:56	WG920699
Benzo(a)pyrene	0.118	J3	0.0155	2	11/01/2016 13:56	WG920699
Benzo(b)fluoranthene	0.117		0.0155	2	11/01/2016 13:56	WG920699
Benzo(g,h,i)perylene	0.126		0.0155	2	11/01/2016 13:56	WG920699
Benzo(k)fluoranthene	0.0400		0.0155	2	11/01/2016 13:56	WG920699
Chrysene	0.100		0.0155	2	11/01/2016 13:56	WG920699
Dibenz(a,h)anthracene	0.0204		0.0155	2	11/01/2016 13:56	WG920699
Fluoranthene	0.134		0.0155	2	11/01/2016 13:56	WG920699
Fluorene	0.0352		0.0155	2	11/01/2016 13:56	WG920699
Indeno(1,2,3-cd)pyrene	0.0787		0.0155	2	11/01/2016 13:56	WG920699
Naphthalene	0.0758		0.0518	2	11/01/2016 13:56	WG920699
Phenanthrene	0.101		0.0155	2	11/01/2016 13:56	WG920699
Pyrene	0.157		0.0155	2	11/01/2016 13:56	WG920699
1-Methylnaphthalene	0.0694		0.0518	2	11/01/2016 13:56	WG920699
2-Methylnaphthalene	0.109		0.0518	2	11/01/2016 13:56	WG920699
2-Chloronaphthalene	ND		0.0518	2	11/01/2016 13:56	WG920699
(S) Nitrobenzene-d5	*72.5*		*22.1-146*		*11/01/2016 13:56*	WG920699
(S) 2-Fluorobiphenyl	*62.5*		*40.6-122*		*11/01/2016 13:56*	WG920699
(S) p-Terphenyl-d14	*58.4*		*32.2-131*		*11/01/2016 13:56*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.7		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0838		0.0242	1	10/26/2016 13:28	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	4.81		2.42	1	10/25/2016 16:28	WG920158
Barium	69.2		0.604	1	10/25/2016 16:28	WG920158
Cadmium	ND		0.604	1	10/25/2016 16:28	WG920158
Chromium	8.67		1.21	1	10/25/2016 16:28	WG920158
Lead	73.4		0.604	1	10/25/2016 16:28	WG920158
Selenium	ND		2.42	1	10/25/2016 16:28	WG920158
Silver	ND		1.21	1	10/25/2016 16:28	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	8.75		4.83	1	10/28/2016 16:08	WG920314
Residual Range Organics (RRO)	51.1		12.1	1	10/28/2016 16:08	WG920314
(S) o-Terphenyl	*66.4*		*50.0-150*		*10/28/2016 16:08*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0169		0.0145	2	11/01/2016 14:21	WG920699
Acenaphthene	0.0934		0.0145	2	11/01/2016 14:21	WG920699
Acenaphthylene	ND		0.0145	2	11/01/2016 14:21	WG920699
Benzo(a)anthracene	0.0309		0.0145	2	11/01/2016 14:21	WG920699
Benzo(a)pyrene	0.0329	J3	0.0145	2	11/01/2016 14:21	WG920699
Benzo(b)fluoranthene	0.0406		0.0145	2	11/01/2016 14:21	WG920699
Benzo(g,h,i)perylene	0.0322		0.0145	2	11/01/2016 14:21	WG920699
Benzo(k)fluoranthene	ND		0.0145	2	11/01/2016 14:21	WG920699
Chrysene	0.0331		0.0145	2	11/01/2016 14:21	WG920699
Dibenz(a,h)anthracene	ND		0.0145	2	11/01/2016 14:21	WG920699
Fluoranthene	0.0590		0.0145	2	11/01/2016 14:21	WG920699
Fluorene	0.0533		0.0145	2	11/01/2016 14:21	WG920699
Indeno(1,2,3-cd)pyrene	0.0221		0.0145	2	11/01/2016 14:21	WG920699
Naphthalene	0.136		0.0483	2	11/01/2016 14:21	WG920699
Phenanthrene	0.0737		0.0145	2	11/01/2016 14:21	WG920699
Pyrene	0.0580		0.0145	2	11/01/2016 14:21	WG920699
1-Methylnaphthalene	0.0859		0.0483	2	11/01/2016 14:21	WG920699
2-Methylnaphthalene	0.129		0.0483	2	11/01/2016 14:21	WG920699
2-Chloronaphthalene	ND		0.0483	2	11/01/2016 14:21	WG920699
(S) Nitrobenzene-d5	*75.9*		*22.1-146*		*11/01/2016 14:21*	WG920699
(S) 2-Fluorobiphenyl	*69.8*		*40.6-122*		*11/01/2016 14:21*	WG920699
(S) p-Terphenyl-d14	*74.2*		*32.2-131*		*11/01/2016 14:21*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.6		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0258	1	10/26/2016 13:30	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.58	1	10/25/2016 16:30	WG920158
Barium	171		0.645	1	10/25/2016 16:30	WG920158
Cadmium	ND		0.645	1	10/25/2016 16:30	WG920158
Chromium	18.7		1.29	1	10/25/2016 16:30	WG920158
Lead	215		0.645	1	10/25/2016 16:30	WG920158
Selenium	ND		2.58	1	10/25/2016 16:30	WG920158
Silver	ND		1.29	1	10/25/2016 16:30	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		103	20	10/28/2016 21:03	WG920314
Residual Range Organics (RRO)	1220		258	20	10/28/2016 21:03	WG920314
(S) o-Terphenyl	*50.8*	J7	*50.0-150*		*10/28/2016 21:03*	WG920314

Sample Narrative:

NWTPHDX L867608-31 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.155	20	11/01/2016 18:51	WG920699
Acenaphthene	ND		0.155	20	11/01/2016 18:51	WG920699
Acenaphthylene	ND		0.155	20	11/01/2016 18:51	WG920699
Benzo(a)anthracene	ND		0.155	20	11/01/2016 18:51	WG920699
Benzo(a)pyrene	ND	J3	0.155	20	11/01/2016 18:51	WG920699
Benzo(b)fluoranthene	ND		0.155	20	11/01/2016 18:51	WG920699
Benzo(g,h,i)perylene	ND		0.155	20	11/01/2016 18:51	WG920699
Benzo(k)fluoranthene	ND		0.155	20	11/01/2016 18:51	WG920699
Chrysene	ND		0.155	20	11/01/2016 18:51	WG920699
Dibenz(a,h)anthracene	ND		0.155	20	11/01/2016 18:51	WG920699
Fluoranthene	ND		0.155	20	11/01/2016 18:51	WG920699
Fluorene	ND		0.155	20	11/01/2016 18:51	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.155	20	11/01/2016 18:51	WG920699
Naphthalene	ND		0.516	20	11/01/2016 18:51	WG920699
Phenanthrene	ND		0.155	20	11/01/2016 18:51	WG920699
Pyrene	ND		0.155	20	11/01/2016 18:51	WG920699
1-Methylnaphthalene	ND		0.516	20	11/01/2016 18:51	WG920699
2-Methylnaphthalene	ND		0.516	20	11/01/2016 18:51	WG920699
2-Chloronaphthalene	ND		0.516	20	11/01/2016 18:51	WG920699
(S) Nitrobenzene-d5	*56.0*		*22.1-146*		*11/01/2016 18:51*	WG920699
(S) 2-Fluorobiphenyl	*73.2*		*40.6-122*		*11/01/2016 18:51*	WG920699
(S) p-Terphenyl-d14	*69.1*		*32.2-131*		*11/01/2016 18:51*	WG920699

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	

Sample Narrative:

8270D-SIM L867608-31 WG920699: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.5		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.164		0.0245	1	10/26/2016 13:33	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.45	1	10/25/2016 16:33	WG920158
Barium	84.8		0.614	1	10/25/2016 16:33	WG920158
Cadmium	ND		0.614	1	10/25/2016 16:33	WG920158
Chromium	41.8		1.23	1	10/25/2016 16:33	WG920158
Lead	97.3		0.614	1	10/25/2016 16:33	WG920158
Selenium	2.69		2.45	1	10/25/2016 16:33	WG920158
Silver	ND		1.23	1	10/25/2016 16:33	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	56.8		24.5	5	10/28/2016 18:58	WG920314
Residual Range Organics (RRO)	496		61.4	5	10/28/2016 18:58	WG920314
(S) o-Terphenyl	*64.1*		*50.0-150*		*10/28/2016 18:58*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0736	10	11/01/2016 17:37	WG920699
Acenaphthene	ND		0.0736	10	11/01/2016 17:37	WG920699
Acenaphthylene	ND		0.0736	10	11/01/2016 17:37	WG920699
Benzo(a)anthracene	0.0877		0.0736	10	11/01/2016 17:37	WG920699
Benzo(a)pyrene	0.0811	J3	0.0736	10	11/01/2016 17:37	WG920699
Benzo(b)fluoranthene	0.129		0.0736	10	11/01/2016 17:37	WG920699
Benzo(g,h,i)perylene	0.0868		0.0736	10	11/01/2016 17:37	WG920699
Benzo(k)fluoranthene	ND		0.0736	10	11/01/2016 17:37	WG920699
Chrysene	0.140		0.0736	10	11/01/2016 17:37	WG920699
Dibenz(a,h)anthracene	ND		0.0736	10	11/01/2016 17:37	WG920699
Fluoranthene	0.180		0.0736	10	11/01/2016 17:37	WG920699
Fluorene	ND		0.0736	10	11/01/2016 17:37	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.0736	10	11/01/2016 17:37	WG920699
Naphthalene	0.328		0.245	10	11/01/2016 17:37	WG920699
Phenanthrene	0.154		0.0736	10	11/01/2016 17:37	WG920699
Pyrene	0.212		0.0736	10	11/01/2016 17:37	WG920699
1-Methylnaphthalene	ND		0.245	10	11/01/2016 17:37	WG920699
2-Methylnaphthalene	ND		0.245	10	11/01/2016 17:37	WG920699
2-Chloronaphthalene	ND		0.245	10	11/01/2016 17:37	WG920699
(S) Nitrobenzene-d5	*33.3*		*22.1-146*		*11/01/2016 17:37*	WG920699
(S) 2-Fluorobiphenyl	*56.7*		*40.6-122*		*11/01/2016 17:37*	WG920699
(S) p-Terphenyl-d14	*55.1*		*32.2-131*		*11/01/2016 17:37*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.103		0.0231	1	10/26/2016 13:35	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.31	1	10/25/2016 16:36	WG920158
Barium	111		0.578	1	10/25/2016 16:36	WG920158
Cadmium	ND		0.578	1	10/25/2016 16:36	WG920158
Chromium	13.7		1.16	1	10/25/2016 16:36	WG920158
Lead	68.0		0.578	1	10/25/2016 16:36	WG920158
Selenium	ND		2.31	1	10/25/2016 16:36	WG920158
Silver	ND		1.16	1	10/25/2016 16:36	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		92.4	20	10/28/2016 21:20	WG920314
Residual Range Organics (RRO)	1110		231	20	10/28/2016 21:20	WG920314
(S) o-Terphenyl	*58.7*	J7	*50.0-150*		*10/28/2016 21:20*	WG920314

Sample Narrative:

NWTPHDX L867608-35 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0693	10	11/01/2016 18:02	WG920699
Acenaphthene	ND		0.0693	10	11/01/2016 18:02	WG920699
Acenaphthylene	ND		0.0693	10	11/01/2016 18:02	WG920699
Benzo(a)anthracene	0.0821		0.0693	10	11/01/2016 18:02	WG920699
Benzo(a)pyrene	0.0956	J3	0.0693	10	11/01/2016 18:02	WG920699
Benzo(b)fluoranthene	0.111		0.0693	10	11/01/2016 18:02	WG920699
Benzo(g,h,i)perylene	0.133		0.0693	10	11/01/2016 18:02	WG920699
Benzo(k)fluoranthene	ND		0.0693	10	11/01/2016 18:02	WG920699
Chrysene	0.109		0.0693	10	11/01/2016 18:02	WG920699
Dibenz(a,h)anthracene	ND		0.0693	10	11/01/2016 18:02	WG920699
Fluoranthene	0.153		0.0693	10	11/01/2016 18:02	WG920699
Fluorene	ND		0.0693	10	11/01/2016 18:02	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.0693	10	11/01/2016 18:02	WG920699
Naphthalene	ND		0.231	10	11/01/2016 18:02	WG920699
Phenanthrene	0.0984		0.0693	10	11/01/2016 18:02	WG920699
Pyrene	0.193		0.0693	10	11/01/2016 18:02	WG920699
1-Methylnaphthalene	ND		0.231	10	11/01/2016 18:02	WG920699
2-Methylnaphthalene	ND		0.231	10	11/01/2016 18:02	WG920699
2-Chloronaphthalene	ND		0.231	10	11/01/2016 18:02	WG920699
(S) Nitrobenzene-d5	*63.7*		*22.1-146*		*11/01/2016 18:02*	WG920699
(S) 2-Fluorobiphenyl	*79.8*		*40.6-122*		*11/01/2016 18:02*	WG920699
(S) p-Terphenyl-d14	*71.5*		*32.2-131*		*11/01/2016 18:02*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.159		0.0226	1	10/26/2016 13:38	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.26	1	10/25/2016 16:38	WG920158
Barium	127		0.566	1	10/25/2016 16:38	WG920158
Cadmium	0.796		0.566	1	10/25/2016 16:38	WG920158
Chromium	21.2		1.13	1	10/25/2016 16:38	WG920158
Lead	252		0.566	1	10/25/2016 16:38	WG920158
Selenium	ND		2.26	1	10/25/2016 16:38	WG920158
Silver	ND		1.13	1	10/25/2016 16:38	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	434		90.6	20	10/28/2016 21:39	WG920314
Residual Range Organics (RRO)	2160		226	20	10/28/2016 21:39	WG920314
(S) o-Terphenyl	*96.1*	J7	*50.0-150*		*10/28/2016 21:39*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0768		0.0679	10	11/01/2016 18:26	WG920699
Acenaphthene	ND		0.0679	10	11/01/2016 18:26	WG920699
Acenaphthylene	ND		0.0679	10	11/01/2016 18:26	WG920699
Benzo(a)anthracene	0.183		0.0679	10	11/01/2016 18:26	WG920699
Benzo(a)pyrene	0.279	J3	0.0679	10	11/01/2016 18:26	WG920699
Benzo(b)fluoranthene	0.405		0.0679	10	11/01/2016 18:26	WG920699
Benzo(g,h,i)perylene	0.240		0.0679	10	11/01/2016 18:26	WG920699
Benzo(k)fluoranthene	0.103		0.0679	10	11/01/2016 18:26	WG920699
Chrysene	0.402		0.0679	10	11/01/2016 18:26	WG920699
Dibenz(a,h)anthracene	ND		0.0679	10	11/01/2016 18:26	WG920699
Fluoranthene	0.226		0.0679	10	11/01/2016 18:26	WG920699
Fluorene	ND		0.0679	10	11/01/2016 18:26	WG920699
Indeno(1,2,3-cd)pyrene	0.158		0.0679	10	11/01/2016 18:26	WG920699
Naphthalene	0.232		0.226	10	11/01/2016 18:26	WG920699
Phenanthrene	0.223		0.0679	10	11/01/2016 18:26	WG920699
Pyrene	0.288		0.0679	10	11/01/2016 18:26	WG920699
1-Methylnaphthalene	ND		0.226	10	11/01/2016 18:26	WG920699
2-Methylnaphthalene	ND		0.226	10	11/01/2016 18:26	WG920699
2-Chloronaphthalene	ND		0.226	10	11/01/2016 18:26	WG920699
(S) Nitrobenzene-d5	*75.2*		*22.1-146*		*11/01/2016 18:26*	WG920699
(S) 2-Fluorobiphenyl	*86.5*		*40.6-122*		*11/01/2016 18:26*	WG920699
(S) p-Terphenyl-d14	*83.1*		*32.2-131*		*11/01/2016 18:26*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0759		0.0221	1	10/26/2016 13:40	WG919714

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.21	1	10/25/2016 16:41	WG920158
Barium	103		0.553	1	10/25/2016 16:41	WG920158
Cadmium	0.642		0.553	1	10/25/2016 16:41	WG920158
Chromium	19.5		1.11	1	10/25/2016 16:41	WG920158
Lead	116		0.553	1	10/25/2016 16:41	WG920158
Selenium	ND		2.21	1	10/25/2016 16:41	WG920158
Silver	ND		1.11	1	10/25/2016 16:41	WG920158

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	114		22.1	5	10/28/2016 16:24	WG920314
Residual Range Organics (RRO)	288		55.3	5	10/28/2016 16:24	WG920314
(S) o-Terphenyl	*60.1*		*50.0-150*		*10/28/2016 16:24*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0643		0.0133	2	11/01/2016 13:32	WG920699
Acenaphthene	0.0660		0.0133	2	11/01/2016 13:32	WG920699
Acenaphthylene	ND		0.0133	2	11/01/2016 13:32	WG920699
Benzo(a)anthracene	0.0612		0.0133	2	11/01/2016 13:32	WG920699
Benzo(a)pyrene	0.0578	J3	0.0133	2	11/01/2016 13:32	WG920699
Benzo(b)fluoranthene	0.0826		0.0133	2	11/01/2016 13:32	WG920699
Benzo(g,h,i)perylene	0.0579		0.0133	2	11/01/2016 13:32	WG920699
Benzo(k)fluoranthene	0.0170		0.0133	2	11/01/2016 13:32	WG920699
Chrysene	0.0971		0.0133	2	11/01/2016 13:32	WG920699
Dibenz(a,h)anthracene	ND		0.0133	2	11/01/2016 13:32	WG920699
Fluoranthene	0.159		0.0133	2	11/01/2016 13:32	WG920699
Fluorene	0.0752		0.0133	2	11/01/2016 13:32	WG920699
Indeno(1,2,3-cd)pyrene	0.0362		0.0133	2	11/01/2016 13:32	WG920699
Naphthalene	0.0673		0.0442	2	11/01/2016 13:32	WG920699
Phenanthrene	0.0785		0.0133	2	11/01/2016 13:32	WG920699
Pyrene	0.169		0.0133	2	11/01/2016 13:32	WG920699
1-Methylnaphthalene	0.0503		0.0442	2	11/01/2016 13:32	WG920699
2-Methylnaphthalene	ND		0.0442	2	11/01/2016 13:32	WG920699
2-Chloronaphthalene	ND		0.0442	2	11/01/2016 13:32	WG920699
(S) Nitrobenzene-d5	*83.1*		*22.1-146*		*11/01/2016 13:32*	WG920699
(S) 2-Fluorobiphenyl	*72.2*		*40.6-122*		*11/01/2016 13:32*	WG920699
(S) p-Terphenyl-d14	*79.0*		*32.2-131*		*11/01/2016 13:32*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	10/24/2016 12:05	WG920174

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0347		0.0230	1	10/26/2016 10:01	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.98		2.30	1	10/26/2016 18:19	WG920159
Barium	88.7		0.575	1	10/26/2016 18:19	WG920159
Cadmium	ND		0.575	1	10/26/2016 18:19	WG920159
Chromium	10.5		1.15	1	10/26/2016 18:19	WG920159
Lead	11.2		0.575	1	10/26/2016 18:19	WG920159
Selenium	ND		2.30	1	10/26/2016 18:19	WG920159
Silver	ND		1.15	1	10/26/2016 18:19	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	10.3		4.60	1	10/28/2016 15:31	WG920314
Residual Range Organics (RRO)	36.7		11.5	1	10/28/2016 15:31	WG920314
(S) o-Terphenyl	*73.9*		*50.0-150*		*10/28/2016 15:31*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00691	1	11/02/2016 10:16	WG920699
Acenaphthene	0.0123		0.00691	1	11/02/2016 10:16	WG920699
Acenaphthylene	ND		0.00691	1	11/02/2016 10:16	WG920699
Benzo(a)anthracene	0.00716		0.00691	1	11/02/2016 10:16	WG920699
Benzo(a)pyrene	ND	J3	0.00691	1	11/02/2016 10:16	WG920699
Benzo(b)fluoranthene	0.00723		0.00691	1	11/02/2016 10:16	WG920699
Benzo(g,h,i)perylene	ND		0.00691	1	11/02/2016 10:16	WG920699
Benzo(k)fluoranthene	ND		0.00691	1	11/02/2016 10:16	WG920699
Chrysene	0.0102		0.00691	1	11/02/2016 10:16	WG920699
Dibenz(a,h)anthracene	ND		0.00691	1	11/02/2016 10:16	WG920699
Fluoranthene	0.0160		0.00691	1	11/02/2016 10:16	WG920699
Fluorene	0.00733		0.00691	1	11/02/2016 10:16	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.00691	1	11/02/2016 10:16	WG920699
Naphthalene	ND		0.0230	1	11/02/2016 10:16	WG920699
Phenanthrene	0.00788	B	0.00691	1	11/02/2016 10:16	WG920699
Pyrene	0.0183		0.00691	1	11/02/2016 10:16	WG920699
1-Methylnaphthalene	ND		0.0230	1	11/02/2016 10:16	WG920699
2-Methylnaphthalene	ND		0.0230	1	11/02/2016 10:16	WG920699
2-Chloronaphthalene	ND		0.0230	1	11/02/2016 10:16	WG920699
(S) Nitrobenzene-d5	*107*		*22.1-146*		*11/02/2016 10:16*	WG920699
(S) 2-Fluorobiphenyl	*83.6*		*40.6-122*		*11/02/2016 10:16*	WG920699
(S) p-Terphenyl-d14	*87.0*		*32.2-131*		*11/02/2016 10:16*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.183		0.0235	1	10/26/2016 10:24	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	7.85		2.35	1	10/26/2016 18:22	WG920159
Barium	143		0.588	1	10/26/2016 18:22	WG920159
Cadmium	ND		0.588	1	10/26/2016 18:22	WG920159
Chromium	20.1		1.18	1	10/26/2016 18:22	WG920159
Lead	162		0.588	1	10/26/2016 18:22	WG920159
Selenium	ND		2.35	1	10/26/2016 18:22	WG920159
Silver	ND		1.18	1	10/26/2016 18:22	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	153		94.0	20	10/28/2016 21:59	WG920314
Residual Range Organics (RRO)	1300		235	20	10/28/2016 21:59	WG920314
(S) o-Terphenyl	*63.6*	J7	*50.0-150*		*10/28/2016 21:59*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0395		0.0353	5	11/01/2016 15:10	WG920699
Acenaphthene	ND		0.0353	5	11/01/2016 15:10	WG920699
Acenaphthylene	ND		0.0353	5	11/01/2016 15:10	WG920699
Benzo(a)anthracene	0.137		0.0353	5	11/01/2016 15:10	WG920699
Benzo(a)pyrene	0.172	J3	0.0353	5	11/01/2016 15:10	WG920699
Benzo(b)fluoranthene	0.298		0.0353	5	11/01/2016 15:10	WG920699
Benzo(g,h,i)perylene	0.398		0.0353	5	11/01/2016 15:10	WG920699
Benzo(k)fluoranthene	0.0626		0.0353	5	11/01/2016 15:10	WG920699
Chrysene	0.238		0.0353	5	11/01/2016 15:10	WG920699
Dibenz(a,h)anthracene	0.0410		0.0353	5	11/01/2016 15:10	WG920699
Fluoranthene	0.449		0.0353	5	11/01/2016 15:10	WG920699
Fluorene	ND		0.0353	5	11/01/2016 15:10	WG920699
Indeno(1,2,3-cd)pyrene	0.229		0.0353	5	11/01/2016 15:10	WG920699
Naphthalene	0.161		0.118	5	11/01/2016 15:10	WG920699
Phenanthrene	0.198		0.0353	5	11/01/2016 15:10	WG920699
Pyrene	0.468		0.0353	5	11/01/2016 15:10	WG920699
1-Methylnaphthalene	ND		0.118	5	11/01/2016 15:10	WG920699
2-Methylnaphthalene	ND		0.118	5	11/01/2016 15:10	WG920699
2-Chloronaphthalene	ND		0.118	5	11/01/2016 15:10	WG920699
(S) Nitrobenzene-d5	*74.8*		*22.1-146*		*11/01/2016 15:10*	WG920699
(S) 2-Fluorobiphenyl	*72.2*		*40.6-122*		*11/01/2016 15:10*	WG920699
(S) p-Terphenyl-d14	*68.2*		*32.2-131*		*11/01/2016 15:10*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.132		0.0230	1	10/26/2016 10:27	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	7.03		2.30	1	10/26/2016 18:05	WG920159
Barium	104		0.576	1	10/26/2016 18:05	WG920159
Cadmium	0.586		0.576	1	10/26/2016 18:05	WG920159
Chromium	19.3		1.15	1	10/26/2016 18:05	WG920159
Lead	168		0.576	1	10/26/2016 18:05	WG920159
Selenium	ND		2.30	1	10/26/2016 18:05	WG920159
Silver	ND		1.15	1	10/26/2016 18:05	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	102		23.0	5	10/28/2016 19:14	WG920314
Residual Range Organics (RRO)	843		57.6	5	10/28/2016 19:14	WG920314
(S) o-Terphenyl	*60.6*		*50.0-150*		*10/28/2016 19:14*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0427		0.0346	5	11/01/2016 15:34	WG920699
Acenaphthene	ND		0.0346	5	11/01/2016 15:34	WG920699
Acenaphthylene	ND		0.0346	5	11/01/2016 15:34	WG920699
Benzo(a)anthracene	0.100		0.0346	5	11/01/2016 15:34	WG920699
Benzo(a)pyrene	0.0949	J3	0.0346	5	11/01/2016 15:34	WG920699
Benzo(b)fluoranthene	0.120		0.0346	5	11/01/2016 15:34	WG920699
Benzo(g,h,i)perylene	0.135		0.0346	5	11/01/2016 15:34	WG920699
Benzo(k)fluoranthene	0.0355		0.0346	5	11/01/2016 15:34	WG920699
Chrysene	0.124		0.0346	5	11/01/2016 15:34	WG920699
Dibenz(a,h)anthracene	ND		0.0346	5	11/01/2016 15:34	WG920699
Fluoranthene	0.190		0.0346	5	11/01/2016 15:34	WG920699
Fluorene	ND		0.0346	5	11/01/2016 15:34	WG920699
Indeno(1,2,3-cd)pyrene	0.0659		0.0346	5	11/01/2016 15:34	WG920699
Naphthalene	ND		0.115	5	11/01/2016 15:34	WG920699
Phenanthrene	0.163		0.0346	5	11/01/2016 15:34	WG920699
Pyrene	0.197		0.0346	5	11/01/2016 15:34	WG920699
1-Methylnaphthalene	ND		0.115	5	11/01/2016 15:34	WG920699
2-Methylnaphthalene	ND		0.115	5	11/01/2016 15:34	WG920699
2-Chloronaphthalene	ND		0.115	5	11/01/2016 15:34	WG920699
(S) Nitrobenzene-d5	*76.9*		*22.1-146*		*11/01/2016 15:34*	WG920699
(S) 2-Fluorobiphenyl	*78.9*		*40.6-122*		*11/01/2016 15:34*	WG920699
(S) p-Terphenyl-d14	*76.3*		*32.2-131*		*11/01/2016 15:34*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.107		0.0226	1	10/26/2016 10:29	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	7.83		2.26	1	10/26/2016 18:31	WG920159
Barium	116		0.565	1	10/26/2016 18:31	WG920159
Cadmium	ND		0.565	1	10/26/2016 18:31	WG920159
Chromium	16.7		1.13	1	10/26/2016 18:31	WG920159
Lead	68.2		0.565	1	10/26/2016 18:31	WG920159
Selenium	ND		2.26	1	10/26/2016 18:31	WG920159
Silver	ND		1.13	1	10/26/2016 18:31	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	95.1		90.4	20	10/28/2016 22:15	WG920314
Residual Range Organics (RRO)	1250		226	20	10/28/2016 22:15	WG920314
(S) o-Terphenyl	*53.6*	J7	*50.0-150*		*10/28/2016 22:15*	WG920314

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.136	20	11/01/2016 20:29	WG920699
Acenaphthene	ND		0.136	20	11/01/2016 20:29	WG920699
Acenaphthylene	ND		0.136	20	11/01/2016 20:29	WG920699
Benzo(a)anthracene	ND		0.136	20	11/01/2016 20:29	WG920699
Benzo(a)pyrene	ND	J3	0.136	20	11/01/2016 20:29	WG920699
Benzo(b)fluoranthene	ND		0.136	20	11/01/2016 20:29	WG920699
Benzo(g,h,i)perylene	ND		0.136	20	11/01/2016 20:29	WG920699
Benzo(k)fluoranthene	ND		0.136	20	11/01/2016 20:29	WG920699
Chrysene	ND		0.136	20	11/01/2016 20:29	WG920699
Dibenz(a,h)anthracene	ND		0.136	20	11/01/2016 20:29	WG920699
Fluoranthene	ND		0.136	20	11/01/2016 20:29	WG920699
Fluorene	ND		0.136	20	11/01/2016 20:29	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.136	20	11/01/2016 20:29	WG920699
Naphthalene	ND		0.452	20	11/01/2016 20:29	WG920699
Phenanthrene	ND		0.136	20	11/01/2016 20:29	WG920699
Pyrene	ND		0.136	20	11/01/2016 20:29	WG920699
1-Methylnaphthalene	ND		0.452	20	11/01/2016 20:29	WG920699
2-Methylnaphthalene	ND		0.452	20	11/01/2016 20:29	WG920699
2-Chloronaphthalene	ND		0.452	20	11/01/2016 20:29	WG920699
(S) Nitrobenzene-d5	*55.0*	J7	*22.1-146*		*11/01/2016 20:29*	WG920699
(S) 2-Fluorobiphenyl	*72.3*	J7	*40.6-122*		*11/01/2016 20:29*	WG920699
(S) p-Terphenyl-d14	*73.6*	J7	*32.2-131*		*11/01/2016 20:29*	WG920699

Sample Narrative:

8270D-SIM L867608-47 WG920699: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.200		0.0241	1	10/26/2016 10:32	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	9.71		2.41	1	10/26/2016 18:34	WG920159
Barium	173		0.602	1	10/26/2016 18:34	WG920159
Cadmium	ND		0.602	1	10/26/2016 18:34	WG920159
Chromium	25.7		1.20	1	10/26/2016 18:34	WG920159
Lead	125		0.602	1	10/26/2016 18:34	WG920159
Selenium	ND		2.41	1	10/26/2016 18:34	WG920159
Silver	ND		1.20	1	10/26/2016 18:34	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		24.1	5	10/28/2016 16:45	WG920314
Residual Range Organics (RRO)	113		60.2	5	10/28/2016 16:45	WG920314
(S) o-Terphenyl	*75.0*		*50.0-150*		*10/28/2016 16:45*	WG920314

Sample Narrative:

NWTPHDX L867608-49 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0811		0.0361	5	11/01/2016 16:48	WG920699
Acenaphthene	ND		0.0361	5	11/01/2016 16:48	WG920699
Acenaphthylene	0.0500		0.0361	5	11/01/2016 16:48	WG920699
Benzo(a)anthracene	0.195		0.0361	5	11/01/2016 16:48	WG920699
Benzo(a)pyrene	0.187	J3	0.0361	5	11/01/2016 16:48	WG920699
Benzo(b)fluoranthene	0.224		0.0361	5	11/01/2016 16:48	WG920699
Benzo(g,h,i)perylene	0.145		0.0361	5	11/01/2016 16:48	WG920699
Benzo(k)fluoranthene	0.0652		0.0361	5	11/01/2016 16:48	WG920699
Chrysene	0.241		0.0361	5	11/01/2016 16:48	WG920699
Dibenz(a,h)anthracene	0.0384		0.0361	5	11/01/2016 16:48	WG920699
Fluoranthene	0.436		0.0361	5	11/01/2016 16:48	WG920699
Fluorene	0.0971		0.0361	5	11/01/2016 16:48	WG920699
Indeno(1,2,3-cd)pyrene	0.102		0.0361	5	11/01/2016 16:48	WG920699
Naphthalene	0.241		0.120	5	11/01/2016 16:48	WG920699
Phenanthrene	0.623		0.0361	5	11/01/2016 16:48	WG920699
Pyrene	0.451		0.0361	5	11/01/2016 16:48	WG920699
1-Methylnaphthalene	ND		0.120	5	11/01/2016 16:48	WG920699
2-Methylnaphthalene	ND		0.120	5	11/01/2016 16:48	WG920699
2-Chloronaphthalene	ND		0.120	5	11/01/2016 16:48	WG920699
(S) Nitrobenzene-d5	*72.7*		*22.1-146*		*11/01/2016 16:48*	WG920699
(S) 2-Fluorobiphenyl	*73.0*		*40.6-122*		*11/01/2016 16:48*	WG920699
(S) p-Terphenyl-d14	*73.6*		*32.2-131*		*11/01/2016 16:48*	WG920699

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.411		0.0225	1	10/26/2016 10:34	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	6.05		2.25	1	10/26/2016 18:37	WG920159
Barium	131		0.562	1	10/26/2016 18:37	WG920159
Cadmium	ND		0.562	1	10/26/2016 18:37	WG920159
Chromium	17.6		1.12	1	10/26/2016 18:37	WG920159
Lead	110		0.562	1	10/26/2016 18:37	WG920159
Selenium	ND		2.25	1	10/26/2016 18:37	WG920159
Silver	ND		1.12	1	10/26/2016 18:37	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		90.0	20	10/28/2016 22:32	WG920314
Residual Range Organics (RRO)	749		225	20	10/28/2016 22:32	WG920314
(S) o-Terphenyl	*66.1*	J7	*50.0-150*		*10/28/2016 22:32*	WG920314

Sample Narrative:

NWTPHDX L867608-51 WG920314: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.135	20	11/01/2016 20:54	WG920699
Acenaphthene	ND		0.135	20	11/01/2016 20:54	WG920699
Acenaphthylene	ND		0.135	20	11/01/2016 20:54	WG920699
Benzo(a)anthracene	ND		0.135	20	11/01/2016 20:54	WG920699
Benzo(a)pyrene	ND	J3	0.135	20	11/01/2016 20:54	WG920699
Benzo(b)fluoranthene	ND		0.135	20	11/01/2016 20:54	WG920699
Benzo(g,h,i)perylene	ND		0.135	20	11/01/2016 20:54	WG920699
Benzo(k)fluoranthene	ND		0.135	20	11/01/2016 20:54	WG920699
Chrysene	ND		0.135	20	11/01/2016 20:54	WG920699
Dibenz(a,h)anthracene	ND		0.135	20	11/01/2016 20:54	WG920699
Fluoranthene	0.141		0.135	20	11/01/2016 20:54	WG920699
Fluorene	ND		0.135	20	11/01/2016 20:54	WG920699
Indeno(1,2,3-cd)pyrene	ND		0.135	20	11/01/2016 20:54	WG920699
Naphthalene	ND		0.450	20	11/01/2016 20:54	WG920699
Phenanthrene	ND		0.135	20	11/01/2016 20:54	WG920699
Pyrene	0.165		0.135	20	11/01/2016 20:54	WG920699
1-Methylnaphthalene	ND		0.450	20	11/01/2016 20:54	WG920699
2-Methylnaphthalene	ND		0.450	20	11/01/2016 20:54	WG920699
2-Chloronaphthalene	ND		0.450	20	11/01/2016 20:54	WG920699
(S) Nitrobenzene-d5	*73.7*	J7	*22.1-146*		*11/01/2016 20:54*	WG920699
(S) 2-Fluorobiphenyl	*88.5*	J7	*40.6-122*		*11/01/2016 20:54*	WG920699
(S) p-Terphenyl-d14	*86.1*	J7	*32.2-131*		*11/01/2016 20:54*	WG920699

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch

Sample Narrative:

8270D-SIM L867608-51 WG920699: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.223		0.0236	1	10/26/2016 10:37	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	4.99		2.36	1	10/26/2016 18:40	WG920159
Barium	83.6		0.589	1	10/26/2016 18:40	WG920159
Cadmium	ND		0.589	1	10/26/2016 18:40	WG920159
Chromium	10.3		1.18	1	10/26/2016 18:40	WG920159
Lead	46.0		0.589	1	10/26/2016 18:40	WG920159
Selenium	ND		2.36	1	10/26/2016 18:40	WG920159
Silver	ND		1.18	1	10/26/2016 18:40	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	18.1		4.71	1	10/27/2016 17:33	WG920669
Residual Range Organics (RRO)	33.1		11.8	1	10/27/2016 17:33	WG920669
(S) o-Terphenyl	*80.2*		*50.0-150*		*10/27/2016 17:33*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00707	1	10/27/2016 19:17	WG921086
Acenaphthene	ND		0.00707	1	10/27/2016 19:17	WG921086
Acenaphthylene	ND		0.00707	1	10/27/2016 19:17	WG921086
Benzo(a)anthracene	0.0153		0.00707	1	10/27/2016 19:17	WG921086
Benzo(a)pyrene	0.0175		0.00707	1	10/27/2016 19:17	WG921086
Benzo(b)fluoranthene	0.0177		0.00707	1	10/27/2016 19:17	WG921086
Benzo(g,h,i)perylene	0.0123		0.00707	1	10/27/2016 19:17	WG921086
Benzo(k)fluoranthene	0.00755		0.00707	1	10/27/2016 19:17	WG921086
Chrysene	0.0188		0.00707	1	10/27/2016 19:17	WG921086
Dibenz(a,h)anthracene	ND		0.00707	1	10/27/2016 19:17	WG921086
Fluoranthene	0.0335		0.00707	1	10/27/2016 19:17	WG921086
Fluorene	ND		0.00707	1	10/27/2016 19:17	WG921086
Indeno(1,2,3-cd)pyrene	0.00852		0.00707	1	10/27/2016 19:17	WG921086
Naphthalene	ND		0.0236	1	10/27/2016 19:17	WG921086
Phenanthrene	0.0211		0.00707	1	10/27/2016 19:17	WG921086
Pyrene	0.0399		0.00707	1	10/27/2016 19:17	WG921086
1-Methylnaphthalene	ND		0.0236	1	10/27/2016 19:17	WG921086
2-Methylnaphthalene	ND		0.0236	1	10/27/2016 19:17	WG921086
2-Chloronaphthalene	ND		0.0236	1	10/27/2016 19:17	WG921086
(S) Nitrobenzene-d5	*125*		*22.1-146*		*10/27/2016 19:17*	WG921086
(S) 2-Fluorobiphenyl	*89.1*		*40.6-122*		*10/27/2016 19:17*	WG921086
(S) p-Terphenyl-d14	*94.7*		*32.2-131*		*10/27/2016 19:17*	WG921086

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0559		0.0239	1	10/26/2016 10:45	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	6.39		2.39	1	10/26/2016 18:43	WG920159
Barium	147		0.597	1	10/26/2016 18:43	WG920159
Cadmium	0.654		0.597	1	10/26/2016 18:43	WG920159
Chromium	22.6		1.19	1	10/26/2016 18:43	WG920159
Lead	74.3		0.597	1	10/26/2016 18:43	WG920159
Selenium	ND		2.39	1	10/26/2016 18:43	WG920159
Silver	ND		1.19	1	10/26/2016 18:43	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		47.7	10	10/28/2016 00:15	WG920669
Residual Range Organics (RRO)	679		119	10	10/28/2016 00:15	WG920669
(S) o-Terphenyl	*129*		*50.0-150*		*10/28/2016 00:15*	WG920669

Sample Narrative:

NWTPHDX L867608-55 WG920669: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.0716	10	10/27/2016 23:59	WG921086
Acenaphthene	ND		0.0716	10	10/27/2016 23:59	WG921086
Acenaphthylene	ND		0.0716	10	10/27/2016 23:59	WG921086
Benzo(a)anthracene	ND		0.0716	10	10/27/2016 23:59	WG921086
Benzo(a)pyrene	ND		0.0716	10	10/27/2016 23:59	WG921086
Benzo(b)fluoranthene	ND		0.0716	10	10/27/2016 23:59	WG921086
Benzo(g,h,i)perylene	ND		0.0716	10	10/27/2016 23:59	WG921086
Benzo(k)fluoranthene	ND		0.0716	10	10/27/2016 23:59	WG921086
Chrysene	ND		0.0716	10	10/27/2016 23:59	WG921086
Dibenz(a,h)anthracene	ND		0.0716	10	10/27/2016 23:59	WG921086
Fluoranthene	ND		0.0716	10	10/27/2016 23:59	WG921086
Fluorene	ND		0.0716	10	10/27/2016 23:59	WG921086
Indeno(1,2,3-cd)pyrene	ND		0.0716	10	10/27/2016 23:59	WG921086
Naphthalene	ND		0.239	10	10/27/2016 23:59	WG921086
Phenanthrene	ND		0.0716	10	10/27/2016 23:59	WG921086
Pyrene	ND		0.0716	10	10/27/2016 23:59	WG921086
1-Methylnaphthalene	ND		0.239	10	10/27/2016 23:59	WG921086
2-Methylnaphthalene	ND		0.239	10	10/27/2016 23:59	WG921086
2-Chloronaphthalene	ND		0.239	10	10/27/2016 23:59	WG921086
(S) Nitrobenzene-d5	*109*		*22.1-146*		*10/27/2016 23:59*	WG921086
(S) 2-Fluorobiphenyl	*80.0*		*40.6-122*		*10/27/2016 23:59*	WG921086
(S) p-Terphenyl-d14	*82.4*		*32.2-131*		*10/27/2016 23:59*	WG921086

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch

Sample Narrative:

8270D-SIM L867608-55 WG921086: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.7		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0627		0.0231	1	10/26/2016 10:47	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	5.74		2.31	1	10/26/2016 18:45	WG920159
Barium	244		0.577	1	10/26/2016 18:45	WG920159
Cadmium	ND		0.577	1	10/26/2016 18:45	WG920159
Chromium	12.8		1.15	1	10/26/2016 18:45	WG920159
Lead	106		0.577	1	10/26/2016 18:45	WG920159
Selenium	ND		2.31	1	10/26/2016 18:45	WG920159
Silver	ND		1.15	1	10/26/2016 18:45	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	133		9.23	2	10/27/2016 23:00	WG920669
Residual Range Organics (RRO)	313		23.1	2	10/27/2016 23:00	WG920669
(S) o-Terphenyl	*68.6*		*50.0-150*		*10/27/2016 23:00*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0126		0.00692	1	10/27/2016 23:16	WG921086
Acenaphthene	0.0158		0.00692	1	10/27/2016 23:16	WG921086
Acenaphthylene	0.0130		0.00692	1	10/27/2016 23:16	WG921086
Benzo(a)anthracene	0.0133		0.00692	1	10/27/2016 23:16	WG921086
Benzo(a)pyrene	0.0121		0.00692	1	10/27/2016 23:16	WG921086
Benzo(b)fluoranthene	0.0163		0.00692	1	10/27/2016 23:16	WG921086
Benzo(g,h,i)perylene	0.0118		0.00692	1	10/27/2016 23:16	WG921086
Benzo(k)fluoranthene	ND		0.00692	1	10/27/2016 23:16	WG921086
Chrysene	0.0222		0.00692	1	10/27/2016 23:16	WG921086
Dibenz(a,h)anthracene	ND		0.00692	1	10/27/2016 23:16	WG921086
Fluoranthene	0.0385		0.00692	1	10/27/2016 23:16	WG921086
Fluorene	0.0109		0.00692	1	10/27/2016 23:16	WG921086
Indeno(1,2,3-cd)pyrene	0.00726		0.00692	1	10/27/2016 23:16	WG921086
Naphthalene	0.0802		0.0231	1	10/27/2016 23:16	WG921086
Phenanthrene	0.0398		0.00692	1	10/27/2016 23:16	WG921086
Pyrene	0.0432		0.00692	1	10/27/2016 23:16	WG921086
1-Methylnaphthalene	0.0272		0.0231	1	10/27/2016 23:16	WG921086
2-Methylnaphthalene	0.0364		0.0231	1	10/27/2016 23:16	WG921086
2-Chloronaphthalene	ND		0.0231	1	10/27/2016 23:16	WG921086
(S) Nitrobenzene-d5	*116*		*22.1-146*		*10/27/2016 23:16*	WG921086
(S) 2-Fluorobiphenyl	*85.2*		*40.6-122*		*10/27/2016 23:16*	WG921086
(S) p-Terphenyl-d14	*82.9*		*32.2-131*		*10/27/2016 23:16*	WG921086

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	10/24/2016 11:16	WG920177

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0495		0.0232	1	10/26/2016 10:50	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	13.5		2.32	1	10/26/2016 18:48	WG920159
Barium	87.6		0.580	1	10/26/2016 18:48	WG920159
Cadmium	0.623		0.580	1	10/26/2016 18:48	WG920159
Chromium	19.6		1.16	1	10/26/2016 18:48	WG920159
Lead	81.5		0.580	1	10/26/2016 18:48	WG920159
Selenium	ND		2.32	1	10/26/2016 18:48	WG920159
Silver	ND		1.16	1	10/26/2016 18:48	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	61.9		9.28	2	10/27/2016 23:20	WG920669
Residual Range Organics (RRO)	276		23.2	2	10/27/2016 23:20	WG920669
(S) o-Terphenyl	*71.9*		*50.0-150*		*10/27/2016 23:20*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0472		0.00696	1	10/28/2016 10:13	WG921086
Acenaphthene	ND		0.00696	1	10/28/2016 10:13	WG921086
Acenaphthylene	ND		0.00696	1	10/28/2016 10:13	WG921086
Benzo(a)anthracene	0.0299		0.00696	1	10/28/2016 10:13	WG921086
Benzo(a)pyrene	0.0342		0.00696	1	10/28/2016 10:13	WG921086
Benzo(b)fluoranthene	0.0474		0.00696	1	10/28/2016 10:13	WG921086
Benzo(g,h,i)perylene	0.0450		0.00696	1	10/28/2016 10:13	WG921086
Benzo(k)fluoranthene	0.0135		0.00696	1	10/28/2016 10:13	WG921086
Chrysene	0.0495		0.00696	1	10/28/2016 10:13	WG921086
Dibenz(a,h)anthracene	0.0114		0.00696	1	10/28/2016 10:13	WG921086
Fluoranthene	0.0544		0.00696	1	10/28/2016 10:13	WG921086
Fluorene	0.00795		0.00696	1	10/28/2016 10:13	WG921086
Indeno(1,2,3-cd)pyrene	0.0362		0.00696	1	10/28/2016 10:13	WG921086
Naphthalene	ND		0.0232	1	10/28/2016 10:13	WG921086
Phenanthrene	0.0253		0.00696	1	10/28/2016 10:13	WG921086
Pyrene	0.0820		0.00696	1	10/28/2016 10:13	WG921086
1-Methylnaphthalene	ND		0.0232	1	10/28/2016 10:13	WG921086
2-Methylnaphthalene	ND		0.0232	1	10/28/2016 10:13	WG921086
2-Chloronaphthalene	ND		0.0232	1	10/28/2016 10:13	WG921086
(S) Nitrobenzene-d5	*124*		*22.1-146*		*10/28/2016 10:13*	WG921086
(S) 2-Fluorobiphenyl	*74.6*		*40.6-122*		*10/28/2016 10:13*	WG921086
(S) p-Terphenyl-d14	*69.2*		*32.2-131*		*10/28/2016 10:13*	WG921086

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	66.9		1	10/26/2016 13:51	WG920178

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0318		0.0299	1	10/26/2016 10:52	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	8.49		2.99	1	10/26/2016 18:51	WG920159
Barium	138		0.747	1	10/26/2016 18:51	WG920159
Cadmium	ND		0.747	1	10/26/2016 18:51	WG920159
Chromium	23.4		1.49	1	10/26/2016 18:51	WG920159
Lead	49.0		0.747	1	10/26/2016 18:51	WG920159
Selenium	ND		2.99	1	10/26/2016 18:51	WG920159
Silver	ND		1.49	1	10/26/2016 18:51	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	16.2		5.98	1	10/27/2016 17:49	WG920669
Residual Range Organics (RRO)	33.1		14.9	1	10/27/2016 17:49	WG920669
(S) o-Terphenyl	*83.6*		*50.0-150*		*10/27/2016 17:49*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0130		0.00897	1	10/27/2016 19:38	WG921086
Acenaphthene	ND		0.00897	1	10/27/2016 19:38	WG921086
Acenaphthylene	ND		0.00897	1	10/27/2016 19:38	WG921086
Benzo(a)anthracene	0.0139		0.00897	1	10/27/2016 19:38	WG921086
Benzo(a)pyrene	0.0127		0.00897	1	10/27/2016 19:38	WG921086
Benzo(b)fluoranthene	0.0171		0.00897	1	10/27/2016 19:38	WG921086
Benzo(g,h,i)perylene	0.0132		0.00897	1	10/27/2016 19:38	WG921086
Benzo(k)fluoranthene	ND		0.00897	1	10/27/2016 19:38	WG921086
Chrysene	0.0230		0.00897	1	10/27/2016 19:38	WG921086
Dibenz(a,h)anthracene	ND		0.00897	1	10/27/2016 19:38	WG921086
Fluoranthene	0.0331		0.00897	1	10/27/2016 19:38	WG921086
Fluorene	0.00966		0.00897	1	10/27/2016 19:38	WG921086
Indeno(1,2,3-cd)pyrene	ND		0.00897	1	10/27/2016 19:38	WG921086
Naphthalene	0.0938		0.0299	1	10/27/2016 19:38	WG921086
Phenanthrene	0.0597		0.00897	1	10/27/2016 19:38	WG921086
Pyrene	0.0362		0.00897	1	10/27/2016 19:38	WG921086
1-Methylnaphthalene	0.0811		0.0299	1	10/27/2016 19:38	WG921086
2-Methylnaphthalene	0.110		0.0299	1	10/27/2016 19:38	WG921086
2-Chloronaphthalene	ND		0.0299	1	10/27/2016 19:38	WG921086
(S) Nitrobenzene-d5	*95.7*		*22.1-146*		*10/27/2016 19:38*	WG921086
(S) 2-Fluorobiphenyl	*73.1*		*40.6-122*		*10/27/2016 19:38*	WG921086
(S) p-Terphenyl-d14	*62.5*		*32.2-131*		*10/27/2016 19:38*	WG921086

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.8		1	10/26/2016 13:51	WG920178

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0216	1	10/26/2016 10:55	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.21		2.16	1	10/26/2016 18:54	WG920159
Barium	66.4		0.539	1	10/26/2016 18:54	WG920159
Cadmium	ND		0.539	1	10/26/2016 18:54	WG920159
Chromium	8.36		1.08	1	10/26/2016 18:54	WG920159
Lead	4.09		0.539	1	10/26/2016 18:54	WG920159
Selenium	ND		2.16	1	10/26/2016 18:54	WG920159
Silver	ND		1.08	1	10/26/2016 18:54	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		4.31	1	10/28/2016 13:57	WG920669
Residual Range Organics (RRO)	ND		10.8	1	10/28/2016 13:57	WG920669
(S) o-Terphenyl	*110*		*50.0-150*		*10/28/2016 13:57*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00647	1	10/27/2016 20:00	WG921086
Acenaphthene	ND		0.00647	1	10/27/2016 20:00	WG921086
Acenaphthylene	ND		0.00647	1	10/27/2016 20:00	WG921086
Benzo(a)anthracene	ND		0.00647	1	10/27/2016 20:00	WG921086
Benzo(a)pyrene	ND		0.00647	1	10/27/2016 20:00	WG921086
Benzo(b)fluoranthene	ND		0.00647	1	10/27/2016 20:00	WG921086
Benzo(g,h,i)perylene	ND		0.00647	1	10/27/2016 20:00	WG921086
Benzo(k)fluoranthene	ND		0.00647	1	10/27/2016 20:00	WG921086
Chrysene	ND		0.00647	1	10/27/2016 20:00	WG921086
Dibenz(a,h)anthracene	ND		0.00647	1	10/27/2016 20:00	WG921086
Fluoranthene	ND		0.00647	1	10/27/2016 20:00	WG921086
Fluorene	ND		0.00647	1	10/27/2016 20:00	WG921086
Indeno(1,2,3-cd)pyrene	ND		0.00647	1	10/27/2016 20:00	WG921086
Naphthalene	ND		0.0216	1	10/27/2016 20:00	WG921086
Phenanthrene	ND		0.00647	1	10/27/2016 20:00	WG921086
Pyrene	ND		0.00647	1	10/27/2016 20:00	WG921086
1-Methylnaphthalene	ND		0.0216	1	10/27/2016 20:00	WG921086
2-Methylnaphthalene	ND		0.0216	1	10/27/2016 20:00	WG921086
2-Chloronaphthalene	ND		0.0216	1	10/27/2016 20:00	WG921086
(S) Nitrobenzene-d5	*126*		*22.1-146*		*10/27/2016 20:00*	WG921086
(S) 2-Fluorobiphenyl	*86.0*		*40.6-122*		*10/27/2016 20:00*	WG921086
(S) p-Terphenyl-d14	*93.5*		*32.2-131*		*10/27/2016 20:00*	WG921086

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	10/26/2016 13:51	WG920178

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0225	1	10/26/2016 10:57	WG919715

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.51		2.25	1	10/26/2016 18:57	WG920159
Barium	146		0.563	1	10/26/2016 18:57	WG920159
Cadmium	ND		0.563	1	10/26/2016 18:57	WG920159
Chromium	6.25		1.13	1	10/26/2016 18:57	WG920159
Lead	6.25		0.563	1	10/26/2016 18:57	WG920159
Selenium	ND		2.25	1	10/26/2016 18:57	WG920159
Silver	ND		1.13	1	10/26/2016 18:57	WG920159

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	13.8		9.00	2	10/28/2016 15:11	WG920669
Residual Range Organics (RRO)	131		22.5	2	10/28/2016 15:11	WG920669
(S) o-Terphenyl	*85.0*		*50.0-150*		*10/28/2016 15:11*	WG920669

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00675	1	10/27/2016 20:22	WG921086
Acenaphthene	ND		0.00675	1	10/27/2016 20:22	WG921086
Acenaphthylene	ND		0.00675	1	10/27/2016 20:22	WG921086
Benzo(a)anthracene	ND		0.00675	1	10/27/2016 20:22	WG921086
Benzo(a)pyrene	ND		0.00675	1	10/27/2016 20:22	WG921086
Benzo(b)fluoranthene	ND		0.00675	1	10/27/2016 20:22	WG921086
Benzo(g,h,i)perylene	ND		0.00675	1	10/27/2016 20:22	WG921086
Benzo(k)fluoranthene	ND		0.00675	1	10/27/2016 20:22	WG921086
Chrysene	ND		0.00675	1	10/27/2016 20:22	WG921086
Dibenz(a,h)anthracene	ND		0.00675	1	10/27/2016 20:22	WG921086
Fluoranthene	ND		0.00675	1	10/27/2016 20:22	WG921086
Fluorene	ND		0.00675	1	10/27/2016 20:22	WG921086
Indeno(1,2,3-cd)pyrene	ND		0.00675	1	10/27/2016 20:22	WG921086
Naphthalene	ND		0.0225	1	10/27/2016 20:22	WG921086
Phenanthrene	ND		0.00675	1	10/27/2016 20:22	WG921086
Pyrene	ND		0.00675	1	10/27/2016 20:22	WG921086
1-Methylnaphthalene	ND		0.0225	1	10/27/2016 20:22	WG921086
2-Methylnaphthalene	ND		0.0225	1	10/27/2016 20:22	WG921086
2-Chloronaphthalene	ND		0.0225	1	10/27/2016 20:22	WG921086
(S) Nitrobenzene-d5	*127*		*22.1-146*		*10/27/2016 20:22*	WG921086
(S) 2-Fluorobiphenyl	*87.3*		*40.6-122*		*10/27/2016 20:22*	WG921086
(S) p-Terphenyl-d14	*94.7*		*32.2-131*		*10/27/2016 20:22*	WG921086

Method Blank (MB)

(MB) R3172818-1 10/22/16 14:55

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L867608-01 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-01 10/22/16 14:55 • (DUP) R3172818-3 10/22/16 14:55

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.1	93.1	1	0.0394		5

Laboratory Control Sample (LCS)

(LCS) R3172818-2 10/22/16 14:55

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3172949-1 10/24/16 10:59

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000600			

L867608-21 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-21 10/24/16 10:59 • (DUP) R3172949-3 10/24/16 10:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	79.2	79.7	1	0.660		5

Laboratory Control Sample (LCS)

(LCS) R3172949-2 10/24/16 10:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3172956-1 10/24/16 12:05

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000500			

L867608-23 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-23 10/24/16 12:05 • (DUP) R3172956-3 10/24/16 12:05

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.6	90.1	1	1.63		5

Laboratory Control Sample (LCS)

(LCS) R3172956-2 10/24/16 12:05

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3172951-1 10/24/16 11:16

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L867608-59 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-59 10/24/16 11:16 • (DUP) R3172951-3 10/24/16 11:16

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.2	87.0	1	0.917		5

Laboratory Control Sample (LCS)

(LCS) R3172951-2 10/24/16 11:16

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3173630-1 10/26/16 13:51

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000700			

L867660-02 Original Sample (OS) • Duplicate (DUP)

(OS) L867660-02 10/26/16 13:51 • (DUP) R3173630-3 10/26/16 13:51

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.9	79.0	1	0.221		5

Laboratory Control Sample (LCS)

(LCS) R3173630-2 10/26/16 13:51

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3173474-1 10/26/16 12:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173474-2 10/26/16 12:29 • (LCSD) R3173474-3 10/26/16 12:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Mercury	0.300	0.282	0.282	94	94	80-120			0	20

L867608-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867608-01 10/26/16 12:34 • (MS) R3173474-4 10/26/16 12:37 • (MSD) R3173474-5 10/26/16 12:39

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.322	0.0346	0.336	0.324	94	90	1	75-125			4	20

Method Blank (MB)

(MB) R3173416-1 10/26/16 09:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173416-2 10/26/16 09:56 • (LCSD) R3173416-3 10/26/16 09:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.275	0.285	92	95	80-120			4	20

L867608-41 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867608-41 10/26/16 10:01 • (MS) R3173416-4 10/26/16 10:04 • (MSD) R3173416-5 10/26/16 10:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.345	0.0347	0.343	0.345	89	90	1	75-125			1	20

Method Blank (MB)

(MB) R3173239-1 10/25/16 15:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173239-2 10/25/16 15:26 • (LCSD) R3173239-3 10/25/16 15:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	103	105	103	105	80-120			2	20
Barium	100	105	106	105	106	80-120			1	20
Cadmium	100	103	105	103	105	80-120			2	20
Chromium	100	101	102	101	102	80-120			1	20
Lead	100	100	102	100	102	80-120			2	20
Selenium	100	104	105	104	105	80-120			2	20
Silver	100	103	106	103	106	80-120			2	20

L867608-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867608-01 10/25/16 15:32 • (MS) R3173239-6 10/25/16 15:39 • (MSD) R3173239-7 10/25/16 15:42

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	107	ND	98.1	100	91	94	1	75-125			2	20
Barium	107	168	268	278	92	102	1	75-125			4	20
Cadmium	107	ND	109	113	101	104	1	75-125			3	20
Chromium	107	24.9	122	128	90	96	1	75-125			5	20
Lead	107	20.3	133	137	105	109	1	75-125			3	20
Selenium	107	ND	108	112	99	103	1	75-125			4	20
Silver	107	ND	110	114	103	106	1	75-125			4	20

Method Blank (MB)

(MB) R3173600-1 10/26/16 17:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173600-2 10/26/16 17:59 • (LCSD) R3173600-3 10/26/16 18:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	99.4	105	99	105	80-120			5	20
Barium	100	104	109	104	109	80-120			5	20
Cadmium	100	99.2	104	99	104	80-120			5	20
Chromium	100	101	105	101	105	80-120			3	20
Lead	100	100	106	100	106	80-120			5	20
Selenium	100	98.2	104	98	104	80-120			6	20
Silver	100	98.1	100	98	100	80-120			2	20

L867608-45 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867608-45 10/26/16 18:05 • (MS) R3173600-6 10/26/16 18:13 • (MSD) R3173600-7 10/26/16 18:16

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	115	7.03	121	117	99	96	1	75-125			4	20
Barium	115	104	237	226	115	105	1	75-125			5	20
Cadmium	115	0.586	118	113	102	98	1	75-125			4	20
Chromium	115	19.3	134	128	99	94	1	75-125			5	20
Lead	115	168	271	281	90	98	1	75-125			4	20
Selenium	115	ND	115	110	100	96	1	75-125			5	20
Silver	115	ND	119	113	104	98	1	75-125			5	20

Method Blank (MB)

(MB) R3173606-1 10/26/16 18:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	0.348	J	0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173606-2 10/26/16 19:00 • (LCSD) R3173606-3 10/26/16 19:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	95.7	102	96	102	80-120			6	20
Barium	100	97.1	103	97	103	80-120			6	20
Cadmium	100	94.9	101	95	101	80-120			6	20
Chromium	100	93.5	99.5	93	100	80-120			6	20
Lead	100	94.1	99.6	94	100	80-120			6	20
Selenium	100	94.8	101	95	101	80-120			7	20
Silver	100	93.8	99.5	94	100	80-120			6	20

L867897-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867897-01 10/26/16 19:06 • (MS) R3173606-6 10/26/16 19:13 • (MSD) R3173606-7 10/26/16 19:16

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	127	U	129	113	100	88	1	75-125			13	20
Barium	127	U	133	118	103	91	1	75-125			12	20
Cadmium	127	U	128	113	101	89	1	75-125			12	20
Chromium	127	U	132	118	101	89	1	75-125			12	20
Lead	127	7.46	136	121	101	90	1	75-125			12	20
Selenium	127	U	127	112	101	89	1	75-125			12	20
Silver	127	U	127	112	100	89	1	75-125			12	20

Method Blank (MB)

(MB) R3173851-1 10/27/16 08:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*102*			*50.0-150*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173851-2 10/27/16 09:04 • (LCSD) R3173851-3 10/27/16 09:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Diesel Range Organics (DRO)	30.0	21.4	23.8	71.2	79.3	50.0-150			10.7	20
Residual Range Organics (RRO)	30.0	21.8	22.6	72.8	75.5	50.0-150			3.59	20
(S) o-Terphenyl				*101*	*104*	*50.0-150*				

L867293-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867293-10 10/27/16 13:02 • (MS) R3173851-4 10/27/16 13:16 • (MSD) R3173851-5 10/27/16 13:30

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Diesel Range Organics (DRO)	6.47	749	667	554	0.000	0.000	5	50.0-150	V	V	18.5	20
(S) o-Terphenyl					*124*	*125*		*50.0-150*				

L867293-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867293-10 10/27/16 11:17 • (MS) R3173851-6 10/27/16 11:29 • (MSD) R3173851-7 10/27/16 11:42

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Residual Range Organics (RRO)	32.4	47.5	68.8	58.1	65.6	32.7	1	50.0-150		J6	16.8	20
(S) o-Terphenyl					*51.7*	*105*		*50.0-150*				

Method Blank (MB)

(MB) R3174371-1 10/28/16 10:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*103*			*50.0-150*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174371-2 10/28/16 10:38 • (LCSD) R3174371-3 10/28/16 10:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	30.0	24.5	29.0	81.6	96.6	50.0-150			16.8	20
Residual Range Organics (RRO)	30.0	23.1	26.6	77.0	88.6	50.0-150			14.0	20
(S) o-Terphenyl				*73.4*	*76.9*	*50.0-150*				

Method Blank (MB)

(MB) R3174086-1 10/27/16 16:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*121*			*50.0-150*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174086-2 10/27/16 16:55 • (LCSD) R3174086-3 10/27/16 17:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	30.0	27.6	26.0	92.2	86.8	50.0-150			5.97	20
Residual Range Organics (RRO)	30.0	25.0	23.1	83.2	77.0	50.0-150			7.67	20
(S) o-Terphenyl				*83.2*	*85.4*	*50.0-150*				

L867928-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867928-05 10/28/16 14:17 • (MS) R3174373-1 10/28/16 14:33 • (MSD) R3174373-2 10/28/16 14:50

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	38.4	ND	35.4	31.9	91.2	82.1	1	50.0-150			10.4	20
Residual Range Organics (RRO)	38.4	ND	34.6	28.8	89.4	74.3	1	50.0-150			18.3	20
(S) o-Terphenyl					*74.9*	*79.4*		*50.0-150*				

Method Blank (MB)

(MB) R3173747-3 10/27/16 01:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*102*			*32.2-131*
(S) Nitrobenzene-d5	*116*			*22.1-146*
(S) 2-Fluorobiphenyl	*81.8*			*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173747-1 10/27/16 00:50 • (LCSD) R3173747-2 10/27/16 01:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0853	0.0831	107	104	50.3-130			2.59	20
Acenaphthene	0.0800	0.0814	0.0783	102	97.9	52.4-120			3.91	20
Acenaphthylene	0.0800	0.0804	0.0770	100	96.2	49.6-120			4.33	20
Benzo(a)anthracene	0.0800	0.0772	0.0728	96.5	91.0	46.7-125			5.83	20
Benzo(a)pyrene	0.0800	0.0832	0.0792	104	99.0	42.3-119			4.98	20
Benzo(b)fluoranthene	0.0800	0.0820	0.0768	102	96.0	43.6-124			6.50	20
Benzo(g,h,i)perylene	0.0800	0.0788	0.0761	98.4	95.1	45.1-132			3.48	20
Benzo(k)fluoranthene	0.0800	0.0918	0.0909	115	114	46.1-131			1.04	20
Chrysene	0.0800	0.0950	0.0944	119	118	49.5-131			0.600	20
Dibenz(a,h)anthracene	0.0800	0.0716	0.0689	89.5	86.2	44.8-133			3.79	20
Fluoranthene	0.0800	0.0917	0.0885	115	111	49.3-128			3.58	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173747-1 10/27/16 00:50 • (LCSD) R3173747-2 10/27/16 01:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0770	0.0740	96.3	92.5	50.6-121			3.96	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0750	0.0721	93.7	90.1	46.1-135			3.92	20
Naphthalene	0.0800	0.0796	0.0771	99.5	96.4	49.6-115			3.15	20
Phenanthrene	0.0800	0.0833	0.0813	104	102	48.8-121			2.40	20
Pyrene	0.0800	0.0956	0.0937	119	117	44.7-130			1.99	20
1-Methylnaphthalene	0.0800	0.0764	0.0741	95.5	92.7	50.6-122			3.01	20
2-Methylnaphthalene	0.0800	0.0760	0.0725	95.0	90.6	50.4-120			4.73	20
2-Chloronaphthalene	0.0800	0.0693	0.0666	86.6	83.3	53.9-121			3.93	20
(S) p-Terphenyl-d14				*93.9*	*89.3*	*32.2-131*				
(S) Nitrobenzene-d5				*110*	*112*	*22.1-146*				
(S) 2-Fluorobiphenyl				*83.0*	*81.7*	*40.6-122*				

L867293-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867293-12 10/27/16 05:06 • (MS) R3173747-4 10/27/16 05:28 • (MSD) R3173747-5 10/27/16 05:50

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0880	ND	0.0876	0.0900	99.6	102	1	26.5-141			2.66	21.2
Acenaphthene	0.0880	ND	0.0862	0.0881	98.0	100	1	31.9-130			2.20	20
Acenaphthylene	0.0880	ND	0.0875	0.0886	99.5	101	1	33.7-129			1.17	20
Benzo(a)anthracene	0.0880	ND	0.0730	0.0717	82.9	81.5	1	18.3-136			1.76	24.6
Benzo(a)pyrene	0.0880	ND	0.0881	0.0903	100	103	1	16.9-135			2.51	25.2
Benzo(b)fluoranthene	0.0880	ND	0.0704	0.0721	80.0	82.0	1	10.0-134			2.45	30.9
Benzo(g,h,i)perylene	0.0880	ND	0.0746	0.0791	84.8	90.0	1	14.1-140			5.88	25.5
Benzo(k)fluoranthene	0.0880	ND	0.0938	0.0976	107	111	1	18.2-138			3.88	25.6
Chrysene	0.0880	ND	0.0992	0.102	113	116	1	17.1-145			2.51	24.2
Dibenz(a,h)anthracene	0.0880	ND	0.0731	0.0749	83.2	85.1	1	18.5-138			2.34	24.3
Fluoranthene	0.0880	ND	0.0827	0.0868	94.0	98.7	1	15.4-144			4.93	27.1
Fluorene	0.0880	ND	0.0766	0.0796	87.0	90.5	1	23.5-136			3.90	20
Indeno(1,2,3-cd)pyrene	0.0880	ND	0.0723	0.0752	82.2	85.5	1	14.5-142			3.85	25.8
Naphthalene	0.0880	ND	0.0886	0.0893	101	101	1	29.2-128			0.750	20
Phenanthrene	0.0880	ND	0.0806	0.0840	91.7	95.5	1	20.1-134			4.06	23.6
Pyrene	0.0880	ND	0.0875	0.0913	99.5	104	1	11.0-148			4.24	26.1
1-Methylnaphthalene	0.0880	ND	0.0838	0.0839	95.2	95.4	1	28.4-137			0.130	20
2-Methylnaphthalene	0.0880	ND	0.0831	0.0809	94.5	92.0	1	26.6-137			2.71	20
2-Chloronaphthalene	0.0880	ND	0.0731	0.0748	83.1	85.0	1	38.6-126			2.28	20
(S) p-Terphenyl-d14					*88.7*	*89.9*		*32.2-131*				
(S) Nitrobenzene-d5					*120*	*125*		*22.1-146*				
(S) 2-Fluorobiphenyl					*78.9*	*83.6*		*40.6-122*				

Method Blank (MB)

(MB) R3174950-3 11/01/16 10:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	0.000778	J	0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*110*			*32.2-131*
(S) Nitrobenzene-d5	*91.7*			*22.1-146*
(S) 2-Fluorobiphenyl	*100*			*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174950-1 11/01/16 09:51 • (LCSD) R3174950-2 11/01/16 10:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0776	0.0751	97.0	93.9	50.3-130			3.30	20
Acenaphthene	0.0800	0.0745	0.0712	93.2	89.0	52.4-120			4.60	20
Acenaphthylene	0.0800	0.0736	0.0715	92.0	89.3	49.6-120			2.90	20
Benzo(a)anthracene	0.0800	0.0800	0.0783	100	97.9	46.7-125			2.17	20
Benzo(a)pyrene	0.0800	0.0675	0.0531	84.4	66.3	42.3-119		J3	23.9	20
Benzo(b)fluoranthene	0.0800	0.0854	0.0767	107	95.9	43.6-124			10.7	20
Benzo(g,h,i)perylene	0.0800	0.0806	0.0767	101	95.8	45.1-132			5.02	20
Benzo(k)fluoranthene	0.0800	0.0730	0.0805	91.3	101	46.1-131			9.74	20
Chrysene	0.0800	0.0781	0.0778	97.7	97.2	49.5-131			0.440	20
Dibenz(a,h)anthracene	0.0800	0.0835	0.0832	104	104	44.8-133			0.410	20
Fluoranthene	0.0800	0.0801	0.0789	100	98.7	49.3-128			1.53	20

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM L867608-13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174950-1 11/01/16 09:51 • (LCSD) R3174950-2 11/01/16 10:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0770	0.0754	96.3	94.2	50.6-121			2.15	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0824	0.0814	103	102	46.1-135			1.20	20
Naphthalene	0.0800	0.0680	0.0698	85.0	87.2	49.6-115			2.55	20
Phenanthrene	0.0800	0.0808	0.0794	101	99.2	48.8-121			1.77	20
Pyrene	0.0800	0.0777	0.0767	97.1	95.8	44.7-130			1.30	20
1-Methylnaphthalene	0.0800	0.0736	0.0729	92.0	91.1	50.6-122			1.02	20
2-Methylnaphthalene	0.0800	0.0698	0.0691	87.2	86.4	50.4-120			0.910	20
2-Chloronaphthalene	0.0800	0.0733	0.0720	91.6	90.0	53.9-121			1.74	20
(S) p-Terphenyl-d14				*90.0*	*98.3*	*32.2-131*				
(S) Nitrobenzene-d5				*90.0*	*95.8*	*22.1-146*				
(S) 2-Fluorobiphenyl				*91.9*	*99.0*	*40.6-122*				

Method Blank (MB)

(MB) R3174037-3 10/27/16 14:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*88.3*			*32.2-131*
(S) Nitrobenzene-d5	*95.5*			*22.1-146*
(S) 2-Fluorobiphenyl	*95.8*			*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174037-1 10/27/16 13:33 • (LCSD) R3174037-2 10/27/16 13:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0859	0.0832	107	104	50.3-130			3.14	20
Acenaphthene	0.0800	0.0845	0.0826	106	103	52.4-120			2.23	20
Acenaphthylene	0.0800	0.0787	0.0775	98.4	96.8	49.6-120			1.62	20
Benzo(a)anthracene	0.0800	0.0872	0.0840	109	105	46.7-125			3.72	20
Benzo(a)pyrene	0.0800	0.0852	0.0820	107	102	42.3-119			3.86	20
Benzo(b)fluoranthene	0.0800	0.0834	0.0826	104	103	43.6-124			0.970	20
Benzo(g,h,i)perylene	0.0800	0.0898	0.0866	112	108	45.1-132			3.61	20
Benzo(k)fluoranthene	0.0800	0.0894	0.0838	112	105	46.1-131			6.43	20
Chrysene	0.0800	0.0893	0.0870	112	109	49.5-131			2.63	20
Dibenz(a,h)anthracene	0.0800	0.0927	0.0886	116	111	44.8-133			4.59	20
Fluoranthene	0.0800	0.0902	0.0869	113	109	49.3-128			3.76	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174037-1 10/27/16 13:33 • (LCSD) R3174037-2 10/27/16 13:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0827	0.0804	103	100	50.6-121			2.87	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0908	0.0873	113	109	46.1-135			3.86	20
Naphthalene	0.0800	0.0753	0.0755	94.1	94.4	49.6-115			0.320	20
Phenanthrene	0.0800	0.0845	0.0822	106	103	48.8-121			2.76	20
Pyrene	0.0800	0.0936	0.0909	117	114	44.7-130			2.91	20
1-Methylnaphthalene	0.0800	0.0813	0.0812	102	101	50.6-122			0.0900	20
2-Methylnaphthalene	0.0800	0.0812	0.0807	102	101	50.4-120			0.680	20
2-Chloronaphthalene	0.0800	0.0752	0.0740	94.0	92.5	53.9-121			1.62	20
(S) p-Terphenyl-d14				*87.9*	*84.5*	*32.2-131*				
(S) Nitrobenzene-d5				*103*	*98.6*	*22.1-146*				
(S) 2-Fluorobiphenyl				*102*	*98.7*	*40.6-122*				

L867859-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867859-02 10/27/16 20:44 • (MS) R3174049-1 10/27/16 21:49 • (MSD) R3174049-2 10/27/16 22:10

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.00740	0.0568	0.0580	61.7	63.2	1	26.5-141			2.11	21.2
Acenaphthene	0.0800	0.0127	0.0505	0.0568	47.3	55.1	1	31.9-130			11.7	20
Acenaphthylene	0.0800	ND	0.0453	0.0507	54.6	61.4	1	33.7-129			11.3	20
Benzo(a)anthracene	0.0800	ND	0.0547	0.0533	67.4	65.7	1	18.3-136			2.61	24.6
Benzo(a)pyrene	0.0800	ND	0.0645	0.0624	79.9	77.2	1	16.9-135			3.38	25.2
Benzo(b)fluoranthene	0.0800	ND	0.0523	0.0545	64.1	66.8	1	10.0-134			4.07	30.9
Benzo(g,h,i)perylene	0.0800	ND	0.0564	0.0543	68.7	66.0	1	14.1-140			3.84	25.5
Benzo(k)fluoranthene	0.0800	ND	0.0671	0.0613	83.9	76.6	1	18.2-138			9.11	25.6
Chrysene	0.0800	ND	0.0646	0.0626	79.9	77.4	1	17.1-145			3.04	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0537	0.0499	67.2	62.4	1	18.5-138			7.41	24.3
Fluoranthene	0.0800	ND	0.0584	0.0582	71.5	71.4	1	15.4-144			0.200	27.1
Fluorene	0.0800	0.0159	0.0506	0.0571	43.4	51.5	1	23.5-136			12.0	20
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0541	0.0517	66.6	63.7	1	14.5-142			4.41	25.8
Naphthalene	0.0800	0.0367	0.115	0.115	98.3	97.6	1	29.2-128			0.480	20
Phenanthrene	0.0800	0.0206	0.0649	0.0672	55.4	58.3	1	20.1-134			3.46	23.6
Pyrene	0.0800	0.00696	0.0623	0.0642	69.2	71.5	1	11.0-148			2.90	26.1
1-Methylnaphthalene	0.0800	0.0929	0.130	0.132	46.2	48.5	1	28.4-137			1.44	20
2-Methylnaphthalene	0.0800	0.122	0.153	0.158	38.7	44.8	1	26.6-137			3.14	20
2-Chloronaphthalene	0.0800	ND	0.0420	0.0472	52.5	59.0	1	38.6-126			11.7	20
(S) p-Terphenyl-d14					*78.2*	*72.6*		*32.2-131*				
(S) Nitrobenzene-d5					*121*	*117*		*22.1-146*				
(S) 2-Fluorobiphenyl					*73.1*	*72.5*		*40.6-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

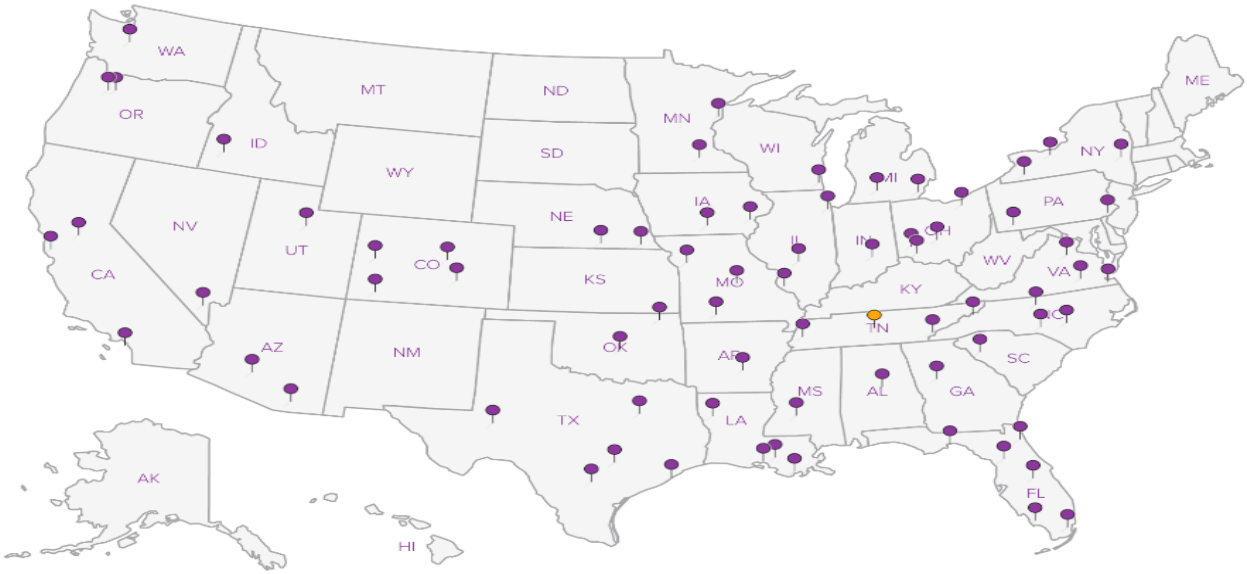
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



GeoDesign Inc.

15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:
Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: Jeremy Zimber

Email To: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29

City/State Collected:

Phone: 503-968-8787

Client Project # HOYTSTPROP-7-01

Lab Project # GEODESPOR-HOYTSTPROP

Fax:

Collected by (print): Kyle Haggart

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ (Y) ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctnrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem./Contaminant	Sample # (lab only)
DRUM-01	Grab	SS	—	10/20	805	3	X	X	X		61/2
DP-02 (12-13)		SS			0910						03/07
DP-02 (16-17)		SS			0918						05/06
DP-01 (12-13.5)		SS			0940						07/08
DP-01 (16-17)		SS			0950						09/10
DP-04 (7-8.5)		SS			1005						11/12
DP-04 (9-10.5)		SS			1010						13/14
[redacted]		SS									15/16
DP-05 (5.5-7)		SS			1030						17/18 15/16
DP-05 (8-9.5)		SS			1035						17/18

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

Remarks:

pH ___ Temp ___

Flow ___ Other ___

Chain of Custody Page ___ of ___

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 867608

A010

Acctnum: GEODESPOR
Template: T117038
Prelogin: P573301
TSR: 110 - Brian Ford
PB:
Shipped Via:

68271095459, 5492, 5460

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 2.7 °C Bottles Received: 99

Date: 10-21-16 Time: 0900

Condition: (lab use only) JW1

COC Seal Intact: ___ Y ___ N ___ NA ✓

pH Checked: NCF:

GeoDesign Inc.

15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:
Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: Jeremy Zimber

Email To: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29

City/State Collected:

Phone: 503-968-8787

Client Project # HOYTSTPROP-7-01

Lab Project # GEODESPOR-HOYTSTPROP

Fax:

Collected by (print): Kyle Haggart

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres								Rem./Contaminant	Sample # (lab only)
DP-03 (0-1.5)		SS	~~1.0-2~~	10/20	1050	3	X	X	X									19/20
DP-03 (5.5-7)		SS	5.5-7		1055	3												21/22
DP-06 (0.5-2)		SS	0.5-2		1120	3												23/24
DP-06 (5-6)		SS	5-6		1130	3												25/26
DP-07 (1-2.5)		SS	1-2.5		1145	3												27/28
DP-07 (4.5-6)		SS	4.5-6		1150	3												29/30
DP-08 (1-2.5)		SS	1-2.5		1205	3												31/32
DP-08 (4.5-6)		SS	4.5-6		1210	3												33/34
DP-09 (0-1.5)		SS	0-1.5		1225	3												35/36
DP-09 (4-5.5)		SS	4-5.5		1230	3												37/38

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: GEODESPOR
Template: T117038
Prelogin: P573301
TSR: 110 - Brian Ford
PB:

Shipped Via:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Daly

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 2.7 °C Bottles Received: 99

Date: 10-21-16 Time: 0900

Hold #

Condition: (lab use only) SW7

COC Seal Intact: ___Y ___N ___NA ✓

pH Checked: NCF:

GeoDesign Inc.

15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:

Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Email To: jzimber@geodesigninc.com

Report to: **Jeremy Zimber**

Project Description: **Hoyt Street Properties - Block 29**

City/State Collected:

Phone: **503-968-8787**
Fax:

Client Project # **HOYTSTPROP-7-01**

Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print): Kyle Haggart

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem./Contaminant	Sample # (lab only)
DP-10 (0.5-2)		SS	0.5-2	10/20	1245	3	X	X	X		39/40
DP-10 (4-5.5)		SS	4-5.5		1250						41/42
DP-12 (1-2.5)		SS	1-2.5		1315						43/44
DP-12 (4-5.5)		SS	4-5.5		1320						45/46
DP-13 (0-1.5)		SS	0-1.5		1335						47/48
DP-13 (4.5-6)		SS	4.5-6		1340						49/50
DP-15 (1-2.5)		SS	1-2.5		1400						51/52
DP-15 (4.5-6)		SS	4.5-6		1405						53/54
DP-11 (0-1.5)		SS	0-1.5		1420						55/56
DP-11 (4-5.5)		SS	4-5.5		1425						57/58

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Dab

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____
Temp: 2.7 °C Bottles Received: 99
Date: 10-21-16 Time: 0900

Hold #

Condition: (lab use only) JW ✓

COC Seal Intact: ___Y ___N ✓NA

pH Checked: NCF:

Chain of Custody Page ___ of ___

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YOUR LAB OF CHOICE
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: **GEODESPOR**
Template: **T117038**
Prelogin: **P573301**
TSR: **110 - Brian Ford**
PB:

Shipped Via:

GeoDesign Inc.

15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:

Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: **Jeremy Zimber**

Email To: **jzimber@geodesigninc.com**

Project Description: **Hoyt Street Properties - Block 29**

City/State Collected:

Phone: **503-968-8787**
Fax:

Client Project # **HOYTSTPROP-7-01**

Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print): **Kyle Hugget**

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ (Y)

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem./Contaminant	Sample # (lab only)
DP-14 (0.5-2)		SS	0.5-2	10/20	1435	3	X	X	X		59/60
DP-14 (5-6.5)		SS	5-6.5	"	1440	"	"	"	"		61/62
DP-16 (0-1.5)		SS	0-1.5	"	1455	"	"	"	"		63/64
DP-16 (4-5.5)		SS	4-5.5	"	1500	"	"	"	"		65/66
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									

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

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Chain of Custody Page ___ of ___

ESC LABS SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **GEODESPOR**
Template: **T117038**
Prelogin: **P573301**
TSR: **110 - Brian Ford**
PB:
Shipped Via:

Hold #

Condition: (lab use only) JW

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___

Temp: 2.7 °C Bottles Received: 99

Date: 10-21-16 Time: 0900

COC Seal Intact: ___Y ___N ✓NA

pH Checked: NCF:

ESC
LAB SCIENCES
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GEODESPOR	SDG#	367658
Cooler Received/Opened On: **10/21/16**	Temperature Upon Receipt:	2.7 °c
Received By: **Dakota Busby**		
Signature: Dakota		

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?			✓
Non Conformance Generated. (If yes see attached NCF)			

Brian Ford

From: Jeremy Zimber <jzimber@geodesigninc.com>
Sent: Friday, October 21, 2016 7:20 PM
To: Brian Ford
Subject: RE: Revised COC - HoytStProp-7-01

Oops, didn't catch that.

PCBs analysis is another follow-up along with TCLP metals. Just like the last HoytStreetProp project, we will be running the three samples with the highest petroleum hydrocarbon hits for PCBs.

Thanks for catching that!

Jeremy Zimber
Project Manager

GeoDesign, Inc.
15575 SW Sequoia Parkway – Suite 100
Portland, Oregon 97224
503.968.8787 p
503.968.3068 f
503.367.6504 m
vcard
www.geodesigninc.com

Portland OR I Salem OR I Anaheim CA I Vancouver WA I Longview WA I Seattle WA I Tacoma WA

From: Brian Ford [mailto:BFord@esclabsciences.com]
Sent: Friday, October 21, 2016 5:15 PM
To: Jeremy Zimber
Subject: RE: Revised COC - HoytStProp-7-01

Jeremy,

We also want to analyze for PCBs by 8082 as well, correct? It is listed on the COC on the same column as DX and PAHSIM.

Thanks,
Brian Ford
ESC Lab Sciences
Office: (615)773-9772
Cell: (931)510-2229
bford@esclabsciences.com

From: Jeremy Zimber [mailto:jzimber@geodesigninc.com]
Sent: Friday, October 21, 2016 7:09 PM
To: Brian Ford
Subject: Revised COC - HoytStProp-7-01

Hi Brian,

As per our phone conversation attached is the revised COC for the HoytStProp-7-01 samples you should have received today. I have updated the analyses and signed the COC for Kyle Haggart, our new field guy. To be clear – we want to run all samples for NWTPH-Dx, RCRA 8 metals by EPA 6000/7000 Series Methods, and PAHs by EPA Method 8270D SIM on a standard TAT.

There potentially will be follow-up TCLP analyses depending on initial metals results.

As we also discussed, please update the sample ID's as we normally do – no "0" space holders in the DRUM and DP sample #'s – no space between the boring location and the depth range – and for the depth range please use decimal points for all depth ranges. They should be:

- DRUM-1
- DP-2(12.0-13.0)
- DP-2(16.0-17.0)
- DP-1(12.0-13.5
- Etc.

Please get ahold of me if you have any questions.

Thanks again and have a good weekend.

Jeremy Zimber
Project Manager

GeoDesign, Inc.
15575 SW Sequoia Parkway – Suite 100
Portland, Oregon 97224
503.968.8787 p
503.968.3068 f
503.367.6504 m
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Portland, OR 97224

Analysis / Container / Preservative

Chain of Custody Page 1 of 4

ESC LAB SCIENCES
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Report to: **Jeremy Zimber**

Email To: jzimber@geodesigninc.com

Project Description: **Hoyt Street Properties - Block 29**

City/State Collected:

Phone: **503-968-8787**
Fax:

Client Project # **HOYTSTPROP-7-01**

Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

L #

Table #

Acctnum: **GEODESPOR**
Template: **T117038**
Prelogin: **P573301**
TSR: **110 - Brian Ford**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP VOAs 8oz Clr-NoPres								Rem./Contaminant	Sample # (lab only)
[redacted]	Grab	SS		10/20/16			X	X	X									
DP-02 (12-13)		SS			0910													
DP-02 (16-17)		SS			0918													
DP-01 (12-13.5)		SS			0940													
DP-01 (16-17)		SS			0950													
DP-04 (7-8.5)		SS			1005													
DP-04 (9-10.5)		SS			1010													
[redacted]		SS																
DP-05 (6.5-7)		SS			1030													
DP-05 (9-9.5)		SS			0935													

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition (lab use only)
(for Kyle Haggart)	10/20/16	1555			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp °C Bottles Received:	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked / NCF:

Chain of Custody Page 2 of 4

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Phone: 800-767-5859
Fax: 615-758-5859

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Portland, OR 97224

Billing Information & Quote Number:
Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: Jeremy Zimber
Email To: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29
City/State Collected:

Phone: 503-968-8787
Fax:
Client Project # HOYTSTPROP-7-01
Lab Project # GEODESPOR-HOYTSTPROP

Collected by (print): Kyle Haggot
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed
Email? ___No X__Yes
FAX? ___No ___Yes

L #
Table #
Acctnum: GEODESPOR
Template: T117038
Prelogin: P573301
TSR: 110 - Brian Ford
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem./Contaminant	Sample # (lab only)
DP-02 (0-0.5)	Grab	SS	0-0.5	10/20/16	1050		X	X			
DP-03 (5.5-7)		SS	5.5-7		1055						
DP-06 (0.5-2)		SS	0.5-2		1120						
DP-06 (5-6)		SS	5-6		1130						
DP-07 (1-2.5)		SS	1-2.5		1145						
DP-07 (4.5-6)		SS	4.5-6		1150						
DP-05 (1-2.5)		SS	1-2.5		1205						
DP-05 (4.5-6)		SS	4.5-6		1210						
DP-01 (0-0.5)		SS	0-0.5		1225						
DP-09 (4-5.5)		SS	4-5.5		1230						

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

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
(for Kyle Haggot)	10/20/16	1555			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

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Billing Information & Quote Number:

Accounts Payable
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Portland, OR 97224

Report to: **Jeremy Zimber**

Email To: jzimber@geodesigninc.com

Project Description: **Hoyt Street Properties - Block 29**

City/State Collected:

Phone: **503-968-8787**
Fax:

Client Project # **HOYTSTPROP-7-01**

Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem /Contaminant	Sample # (lab only)
DP-10 (0-2)	Grab	SS	0-2	10/20/16	1245		X	X			
DP-10 (4-5)		SS	4-5		1250						
DP-12 (1-5)		SS	1-5		1315						
DP-12 (4-5)		SS	4-5		1320						
DP-13 (0-1.5)		SS	0-1.5		1335						
DP-13 (4-5)		SS	4-5		1340						
DP-15 (1-2.5)		SS	1-2.5		1400						
DP-15 (4-5)		SS	4-5		1405						
DP-11 (0-1.5)		SS	0-1.5		1420						
DP-11 (4-5)		SS	4-5		1425						

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
(for Kyle Hoggart)	10/20/16	1555			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

Chain of Custody

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12065 Lebanon Rd
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Phone 615-758-5858
Phone 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: **GEODESPOR**

Template: **T117038**

Prelogin: **P573301**

TSR: **110 - Brian Ford**

PB:

Shipped Via

Chain of Custody Page 4 of 4

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Billing Information & Quote Number:
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Portland, OR 97224

Report to: **Jeremy Zimber**

Email To: **jzimber@geodesigninc.com**

Project Description: **Hoyt Street Properties - Block 29**

City/State Collected:

Phone: **503-968-8787**
Fax:

Client Project # **HOYTSTPROP-7-01**

Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print): Kyle Haggart

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ (Y)

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHS|MD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	CLPMCRA8 8ozClr-NoPres
DP-14 (0.5-2)	Grab	SS	0.5-2	10/20/16	1435		X	X	
DP-14 (5-6.5)		SS	5-6.5		1440				
DP-15 (0-1.5)		SS	0-1.5		1455				
DP-16 (4-5.5)		SS	4-5.5		1500				
		SS							
		SS							
		SS							
		SS							
		SS							
		SS							

Analysis / Container / Preservative

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Phone: 615-758-5858
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Fax: 615-758-5859

L #

Table #

Acctnum: **GEODESPOR**
Template: **T117038**
Prelogin: **P573301**
TSR: **110 - Brian Ford**
PB:

Shipped Via:

Rem./Contaminant | Sample # (lab only)

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
(for Kyle Haggart)	10/20/16	1555	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____
Temp: °C Bottles Received:
Date: Time:

Condition: (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

Brian Ford

From: Jeremy Zimber <jzimber@geodesigninc.com>
Sent: Monday, October 24, 2016 3:53 PM
To: Brian Ford
Subject: RE: ESC Lab Sciences Login for HOYTSTPROP-7-01 Hoyt Street Properties - Block 29 L867608

Brian -

As per our phone conversation, on the C.O.C. for this project, soil sample DP-2(12.0-13.0) was mislabeled and should be DP-2(11.0-12.5).

I didn't catch any other discrepancies in my review.

Please make this change, thanks!

Jeremy Zimber
Project Manager

GeoDesign, Inc.
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503.968.3068 f
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Portland OR I Salem OR I Anaheim CA I Vancouver WA I Longview WA I Seattle WA I Tacoma WA

-----Original Message-----
From: Brian Ford [mailto:bford@esclabsciences.com]
Sent: Friday, October 21, 2016 9:20 PM
To: Jeremy Zimber
Subject: ESC Lab Sciences Login for HOYTSTPROP-7-01 Hoyt Street Properties - Block 29 L867608

Thank you for choosing ESC Lab Sciences! Please find enclosed PDF files containing your laboratory login confirmation and chain of custody.

ESC is leading the laboratory industry with our On-line Data Management tools. Please contact your Technical Service Representative to learn how to create historical Excel tables or access data in real time using powerful and intuitive software that is only available at http://www.esclabsciences.com.

Visit ESC's secure data management web site - myESC - for all your reporting and data management needs at http://www.esclabsciences.com/login

ESC ... "Your Lab of Choice"

Brian Ford
Technical Service Representative
615-773-9772

ESC Lab Sciences
12065 Lebanon Rd.
Mt. Juliet, TN 37122

ANALYTICAL REPORT

November 09, 2016

GeoDesign Inc.

Sample Delivery Group:	L870027
Samples Received:	10/21/2016
Project Number:	HOYTSTPROP-7-01
Description:	Hoyt Street Properties - Block 29

Report To: Jeremy Zimber
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

TABLE OF CONTENTS

DP-1(12.0-13.5) L870027-01 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 09:40 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 02:46	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-1(16.0-17.0) L870027-02 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 09:50 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 02:57	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-4(7.0-8.5) L870027-03 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 10:05 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:00	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-4(9.0-10.5) L870027-04 Solid

Collected by: Kyle Haggert | Collected date/time: 10/20/16 10:10 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Polychlorinated Biphenyls (GC) by Method 8082	WG924185	1	11/08/16 09:25	11/08/16 17:02	JNS
Total Solids by Method 2540 G-2011	WG920171	1	10/24/16 10:46	10/24/16 10:59	MEL

DP-4(9.0-10.5) L870027-05 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 10:10 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:03	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-5(5.5-7.0) L870027-06 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 10:30 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:11	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-6(0.5-2.0) L870027-07 Solid

Collected by: Kyle Haggert | Collected date/time: 10/20/16 11:20 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Polychlorinated Biphenyls (GC) by Method 8082	WG924185	1	11/08/16 09:25	11/08/16 17:16	JNS
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-6(5.0-6.0) L870027-08 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 11:30 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:14	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-7(1.0-2.5) L870027-09 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 11:45 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:17	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-8(1.0-2.5) L870027-10 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 12:05 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:20	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-9(4.0-5.5) L870027-11 Solid

Collected by: Kyle Haggert | Collected date/time: 10/20/16 12:30 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Polychlorinated Biphenyls (GC) by Method 8082	WG924185	1	11/08/16 09:25	11/08/16 17:58	JNS
Total Solids by Method 2540 G-2011	WG920174	1	10/24/16 11:56	10/24/16 12:05	MEL

DP-9(4.0-5.5) L870027-12 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 12:30 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:23	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-10(0.5-2.0) L870027-13 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 12:45 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:26	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-12(1.0-2.5) L870027-14 Waste

Collected by: Kyle Haggert | Collected date/time: 10/20/16 13:15 | Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:29	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-12(4.0-5.5) L870027-15 Waste

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:20
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:32	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-13(4.5-6.0) L870027-16 Waste

Collected by: Kyle Haggert
Collected date/time: 10/20/16 13:40
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:35	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-15(1.0-2.5) L870027-17 Waste

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:00
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:38	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

DP-11(4.0-5.5) L870027-18 Waste

Collected by: Kyle Haggert
Collected date/time: 10/20/16 14:25
Received date/time: 10/21/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG924355	1	11/07/16 12:10	11/08/16 03:46	LTB
Preparation by Method 1311	WG924155	1	11/06/16 16:03	11/06/16 16:03	LJN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	6.55		11/6/2016 4:03:49 PM	WG924155
Final pH	4.92		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	3.73		0.0500	5	1	11/08/2016 02:46	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	9.05		11/6/2016 4:03:49 PM	WG924155
Final pH	5.06		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	1.34		0.0500	5	1	11/08/2016 02:57	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	8.14		11/6/2016 4:03:49 PM	WG924155
Final pH	5.03		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.0653		0.0500	5	1	11/08/2016 03:00	WG924355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	10/24/2016 10:59	WG920171

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
PCB 1016	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1221	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1232	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1242	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1248	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1254	ND		0.0187	1	11/08/2016 17:02	WG924185
PCB 1260	0.364		0.0187	1	11/08/2016 17:02	WG924185
(S) Decachlorobiphenyl	*65.3*		*10.0-143*		*11/08/2016 17:02*	WG924185
(S) Tetrachloro-m-xylene	*77.8*		*29.2-144*		*11/08/2016 17:02*	WG924185

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	7.29		11/6/2016 4:03:49 PM	WG924155
Final pH	5.02		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.247		0.0500	5	1	11/08/2016 03:03	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	8.38		11/6/2016 4:03:49 PM	WG924155
Final pH	4.98		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.0632		0.0500	5	1	11/08/2016 03:11	WG924355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	10/24/2016 12:05	WG920174

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
PCB 1016	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1221	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1232	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1242	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1248	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1254	ND		0.0186	1	11/08/2016 17:16	WG924185
PCB 1260	ND		0.0186	1	11/08/2016 17:16	WG924185
(S) Decachlorobiphenyl	*60.4*		*10.0-143*		*11/08/2016 17:16*	WG924185
(S) Tetrachloro-m-xylene	*74.5*		*29.2-144*		*11/08/2016 17:16*	WG924185

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	9.18		11/6/2016 4:03:49 PM	WG924155
Final pH	5.10		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.494		0.0500	5	1	11/08/2016 03:14	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	8.76		11/6/2016 4:03:49 PM	WG924155
Final pH	5.06		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.154		0.0500	5	1	11/08/2016 03:17	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	9.34		11/6/2016 4:03:49 PM	WG924155
Final pH	5.34		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.161		0.0500	5	1	11/08/2016 03:20	WG924355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/24/2016 12:05	WG920174

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
PCB 1016	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1221	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1232	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1242	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1248	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1254	ND		0.0193	1	11/08/2016 17:58	WG924185
PCB 1260	ND		0.0193	1	11/08/2016 17:58	WG924185
(S) Decachlorobiphenyl	*62.8*		*10.0-143*		*11/08/2016 17:58*	WG924185
(S) Tetrachloro-m-xylene	*81.4*		*29.2-144*		*11/08/2016 17:58*	WG924185

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	9.18		11/6/2016 4:03:49 PM	WG924155
Final pH	5.22		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.200		0.0500	5	1	11/08/2016 03:23	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	7.07		11/6/2016 4:03:49 PM	WG924155
Final pH	4.95		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.0517		0.0500	5	1	11/08/2016 03:26	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	7.05		11/6/2016 4:03:49 PM	WG924155
Final pH	5.05		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.553		0.0500	5	1	11/08/2016 03:29	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	7.29		11/6/2016 4:03:49 PM	WG924155
Final pH	5.03		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.121		0.0500	5	1	11/08/2016 03:32	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	8.32		11/6/2016 4:03:49 PM	WG924155
Final pH	5.00		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.0559		0.0500	5	1	11/08/2016 03:35	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	9.24		11/6/2016 4:03:49 PM	WG924155
Final pH	5.27		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.257		0.0500	5	1	11/08/2016 03:38	WG924355

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/6/2016 4:03:49 PM	WG924155
Fluid	1		11/6/2016 4:03:49 PM	WG924155
Initial pH	6.49		11/6/2016 4:03:49 PM	WG924155
Final pH	4.95		11/6/2016 4:03:49 PM	WG924155

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.0564		0.0500	5	1	11/08/2016 03:46	WG924355

Method Blank (MB)

(MB) R3172949-1 10/24/16 10:59

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000600			

L867608-21 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-21 10/24/16 10:59 • (DUP) R3172949-3 10/24/16 10:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	79.2	79.7	1	0.660		5

Laboratory Control Sample (LCS)

(LCS) R3172949-2 10/24/16 10:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3172956-1 10/24/16 12:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000500			

L867608-23 Original Sample (OS) • Duplicate (DUP)

(OS) L867608-23 10/24/16 12:05 • (DUP) R3172956-3 10/24/16 12:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	91.6	90.1	1	1.63		5

Laboratory Control Sample (LCS)

(LCS) R3172956-2 10/24/16 12:05

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3176356-1 11/08/16 02:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead	U		0.0167	0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3176356-2 11/08/16 02:40 • (LCSD) R3176356-3 11/08/16 02:43

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead	10.0	8.88	8.82	89	88	80-120			1	20

L870027-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L870027-01 11/08/16 02:46 • (MS) R3176356-5 11/08/16 02:52 • (MSD) R3176356-6 11/08/16 02:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead	10.0	3.73	12.6	13.1	88	94	1	75-125			4	20

Method Blank (MB)

(MB) R3176791-1 11/08/16 14:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	*104*			*10.0-143*
(S) Tetrachloro-m-xylene	*85.9*			*29.2-144*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3176791-2 11/08/16 14:55 • (LCSD) R3176791-3 11/08/16 15:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.167	0.128	0.155	77.1	93.1	46.5-120			18.9	27
PCB 1016	0.167	0.117	0.138	69.9	82.8	46.3-117			16.9	27.5
(S) Decachlorobiphenyl				*91.6*	*106*	*10.0-143*				
(S) Tetrachloro-m-xylene				*82.1*	*87.1*	*29.2-144*				

L870027-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L870027-07 11/08/16 17:16 • (MS) R3176791-4 11/08/16 17:30 • (MSD) R3176791-5 11/08/16 17:44

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.182	ND	0.106	0.102	58.2	56.0	1	24.6-127			3.95	20
PCB 1016	0.182	ND	0.127	0.119	69.7	65.3	1	23.9-147			6.51	25.8
(S) Decachlorobiphenyl					*59.4*	*61.1*		*10.0-143*				
(S) Tetrachloro-m-xylene					*72.7*	*78.2*		*29.2-144*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

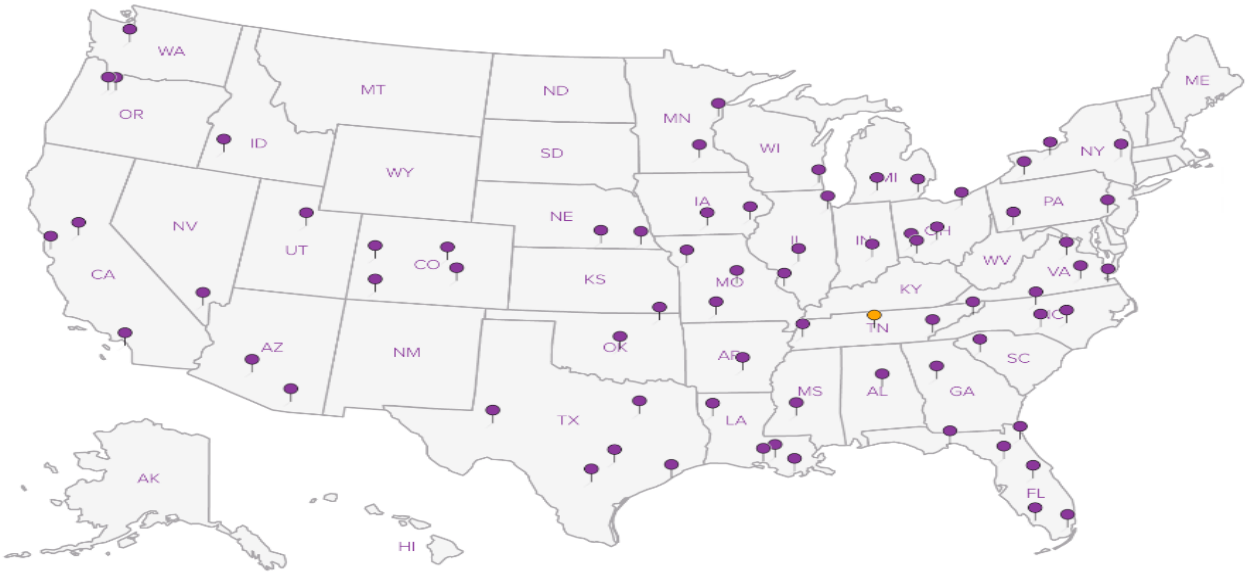
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



GeoDesign Inc. 15575 SW Sequoia Pkwy. Suite 100 Portland, OR 97224	Billing Information & Quote Number: **Accounts Payable** 15575 SW Sequoia Pkwy. Ste 100 Portland, OR 97224	Chain of Custody Page ___ of ___ ESC LAB SCIENCES YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
Report to: **Jeremy Zimber**	Email To: **jzimber@geodesigninc.com**	LR# ~~367608~~ A010 L870027
Project Description: **Hoyt Street Properties - Block 29**	City/State Collected:	
Phone: **503-968-8787** Fax:	Client Project # **HOYTSTPROP-7-01**	Lab Project # **GEODESPOR-HOYTSTPROP**
Collected by (print): Kyle Huggett	Site/Facility ID #	P.O. #
Collected by (signature): Immediately Packed on Ice N ___ (Y) ___	***Rush?*** (Lab MUST Be Notified) ___ Same Day ..... 200% ___ Next Day ..... 100% ___ Two Day ..... 50% ___ Three Day 25%	Date Results Needed Email? ___No X_Yes FAX? ___No ___Yes
		Arctnum: GEODESPOR Template: T117038 Prelogin: P573301 TSR: 110 - Brian Ford PB: Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX,8082,PAHSIMD 8ozClr-NoPres	RCRA8 Metals 2ozClr-NoPres	TCLP RCRA8 8ozClr-NoPres	Rem./Contaminant	Sample # (lab only)
DRUM-01	Grab	SS	—	10/20	805	3	X	X	X		~~01~~ 01
DP-02 (12-13)		SS			0910						~~02~~ 02
DP-02 (16-17)		SS			0918						~~03~~ 03
DP-01 (12-13.5)		SS			0940					-01	~~04~~ 04
DP-01 (16-17)		SS			0950					-02	~~05~~ 05
DP-04 (7-8.5)		SS			1005					-03	~~06~~ 06
DP-04 (9-10.5)		SS			1010					-04/-05	~~13~~/14
[redacted]		SS									~~15~~ 16
DP-05 (5.5-7)		SS			1030					-06	~~19~~ 18 ~~15~~ 17
DP-05 (8-9.5)		SS			1035						17

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

Remarks:

pH _____ Temp _____ Flow _____ Other _____

6827 1109 5459, 5492, 5460

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 2.7 °C Bottles Received: 99

Date: 10-21-16 Time: 0900

Condition: (lab use only) SW1

COC Seal Intact: ___ Y ___ N ___ NA /

pH Checked: NCF:

GeoDesign Inc.

15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:
Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: Jeremy Zimber
Email To: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29
City/State Collected:

Phone: 503-968-8787
Fax:
Client Project #: HOYTSTPROP-7-01
Lab Project #: GEODESPOR-HOYTSTPROP

Collected by (print): Kyle Haggart
Site/Facility ID #:
P.O. #:

Collected by (signature):
Immediately Packed on Ice: N ___ Y X
Rush? (Lab MUST Be Notified): ___ Same Day 200% ___ Next Day 100% ___ Two Day 50% ___ Three Day 25%
Date Results Needed:
Email? ___No X Yes FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DX, 8082, PAHSIMD 8oz Clr-NoPres	RCRA8 Metals 2oz Clr-NoPres	TCLP RCRA8 8oz Clr-NoPres	Rem./Contaminant	Sample # (lab only)
DP-03 (0-1.5)		SS	~~10-15~~	10/20	1050	3	X	X			~~16~~
DP-03 (5.5-7)		SS	5.5-7		1055	3					~~21~~
DP-06 (0.5-2)		SS	0.5-2		1120	3				-07	~~23~~
DP-06 (5-6)		SS	5-6		1130	3				-08	~~25~~
DP-07 (1-2.5)		SS	1-2.5		1145	3				-09	~~29~~
DP-07 (4.5-6)		SS	4.5-6		1150	3					~~30~~
DP-08 (1-2.5)		SS	1-2.5		1205	3				-10	~~31~~
DP-08 (4.5-6)		SS	4.5-6		1210	3					~~34~~
DP-09 (0-1.5)		SS	0-1.5		1225	3					~~35~~
DP-09 (4-5.5)		SS	4-5.5		1230	3				-11/-12	~~38~~

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

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Chain of Custody Page ___ of ___

ESC LABS SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L870027
Table #
Acctnum: GEODESPOR
Template: T117038
Prelogin: P573301
TSR: 110 - Brian Ford
PB:
Shipped Via:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Daly

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___
Temp: 2.7 °C Bottles Received: 99
Date: 10-21-16 Time: 0900

Hold #
Condition: (lab use only) OK SW7
COC Seal Intact: ___ Y ___ N ___ NA ✓
pH Checked: NCF:

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1870027
Table #
Acctnum: GEODESPOR
Template: T117038
Prelogin: P573301
TSR: 110 - Brian Ford
PB:
Shipped Via:

GeoDesign Inc.
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Billing Information & Quote Number:
Accounts Payable
15575 SW Sequoia Pkwy. Ste 100
Portland, OR 97224

Report to: **Jeremy Zimber**
Email To: **jzimber@geodesigninc.com**

Project Description: **Hoyt Street Properties - Block 29**
City/State Collected:

Phone: **503-968-8787**
Fax:
Client Project # **HOYTSTPROP-7-01**
Lab Project # **GEODESPOR-HOYTSTPROP**

Collected by (print): Kyle Huggins
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ___
Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%
Date Results Needed
Email? ___No X Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of cntrs	DX, 8082, PAHSIMD 8oz Clr-NoPres	RCRA8 Metals 2oz Clr-NoPres	TCLP RCRA8 8oz Clr-NoPres	Rem./Contaminant	Sample # (lab only)
DP-10 (0.5-2)		SS	0.5-2	10/20	1245	3	X	X	X	-13	~~36/46~~
DP-10 (4-5.5)		SS	4-5.5		1250						41/42
DP-12 (1-2.5)		SS	1-2.5		1315					-14	~~43/47~~
DP-12 (4-5.5)		SS	4-5.5		1320					-15	~~45/46~~
DP-13 (0-1.5)		SS	0-1.5		1335						~~47/48~~
DP-13 (4.5-6)		SS	4.5-6		1340					-16	~~49/50~~
DP-15 (1-2.5)		SS	1-2.5		1400					-17	~~51/52~~
DP-15 (4.5-6)		SS	4.5-6		1405						~~53/54~~
DP-11 (0-1.5)		SS	0-1.5		1420						~~55/56~~
DP-11 (4-5.5)		SS	4-5.5		1425					-18	~~57/58~~

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

pH ___ Temp ___
Flow ___ Other ___

Hold #

Remarks:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Dah

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___
Temp: 2.7 °C Bottles Received: 99
Date: 10-21-16 Time: 0900

Condition: OK JW (lab use only)
COC Seal Intact: ___Y ___N ✓NA
pH Checked: NCF:

Troy Dunlap L870027

From: Brian Ford
Sent: Wednesday, November 02, 2016 9:09 PM
To: Login; Sample Storage; Reporting
Subject: L867608 *GEODESPOR* re-logs

Please re-log the following as R5 due 11/10.

L867608-13,-23,-37: SV8082 and TS. Transfer TS results.

L867608-07,-09,-11,-13,-15,-25,-27,-31,-37,-39,-43,-45,-49,-51,-57: TCLP PBICP.

Thanks,
Brian Ford
ESC Lab Sciences
Direct: (615)773-9772
Mobile: (931)510-2229
bford@esclabsciences.com

ANALYTICAL REPORT

November 21, 2016

GeoDesign Inc.

Sample Delivery Group:	L873068
Samples Received:	11/16/2016
Project Number:	HOYTSTPROP-7-01
Description:	Hoyt Street Properties - Block 29

Report To: Jeremy Zimber
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

TABLE OF CONTENTS

HA-1(1.0-2.0) L873068-01 Solid

Collected by: Kyle Haggart
Collected date/time: 11/15/16 12:40
Received date/time: 11/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG927256	1	11/17/16 16:38	11/18/16 15:23	NJB
Metals (ICP) by Method 6010B	WG927417	1	11/17/16 16:09	11/18/16 13:14	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG927738	5	11/18/16 14:49	11/19/16 10:40	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG927102	20	11/17/16 04:10	11/17/16 16:28	KLM
Total Solids by Method 2540 G-2011	WG927486	1	11/17/16 15:20	11/17/16 15:29	KDW

HA-2(3.0-4.0) L873068-02 Solid

Collected by: Kyle Haggart
Collected date/time: 11/15/16 14:05
Received date/time: 11/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG927256	1	11/17/16 16:38	11/18/16 15:26	NJB
Metals (ICP) by Method 6010B	WG927417	1	11/17/16 16:09	11/18/16 13:16	ST
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG927738	1	11/18/16 14:49	11/19/16 07:03	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG927102	1	11/17/16 04:10	11/17/16 13:47	KLM
Total Solids by Method 2540 G-2011	WG927486	1	11/17/16 15:20	11/17/16 15:29	KDW

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	11/17/2016 15:29	WG927486

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.127		0.0230	1	11/18/2016 15:23	WG927256

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	6.07		2.30	1	11/18/2016 13:14	WG927417
Barium	94.5		0.575	1	11/18/2016 13:14	WG927417
Cadmium	0.795		0.575	1	11/18/2016 13:14	WG927417
Chromium	16.8		1.15	1	11/18/2016 13:14	WG927417
Lead	189		0.575	1	11/18/2016 13:14	WG927417
Selenium	ND		2.30	1	11/18/2016 13:14	WG927417
Silver	ND		1.15	1	11/18/2016 13:14	WG927417

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		92.1	20	11/17/2016 16:28	WG927102
Residual Range Organics (RRO)	683		230	20	11/17/2016 16:28	WG927102
(S) o-Terphenyl	*106*	J7	*50.0-150*		*11/17/2016 16:28*	WG927102

Sample Narrative:

NWTPHDX L873068-01 WG927102: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	0.0743		0.0345	5	11/19/2016 10:40	WG927738
Acenaphthene	ND		0.0345	5	11/19/2016 10:40	WG927738
Acenaphthylene	0.0468		0.0345	5	11/19/2016 10:40	WG927738
Benzo(a)anthracene	0.215		0.0345	5	11/19/2016 10:40	WG927738
Benzo(a)pyrene	0.178		0.0345	5	11/19/2016 10:40	WG927738
Benzo(b)fluoranthene	0.216		0.0345	5	11/19/2016 10:40	WG927738
Benzo(g,h,i)perylene	0.157		0.0345	5	11/19/2016 10:40	WG927738
Benzo(k)fluoranthene	0.0814		0.0345	5	11/19/2016 10:40	WG927738
Chrysene	0.242		0.0345	5	11/19/2016 10:40	WG927738
Dibenz(a,h)anthracene	0.0388		0.0345	5	11/19/2016 10:40	WG927738
Fluoranthene	0.575		0.0345	5	11/19/2016 10:40	WG927738
Fluorene	ND		0.0345	5	11/19/2016 10:40	WG927738
Indeno(1,2,3-cd)pyrene	0.116		0.0345	5	11/19/2016 10:40	WG927738
Naphthalene	ND		0.115	5	11/19/2016 10:40	WG927738
Phenanthrene	0.290		0.0345	5	11/19/2016 10:40	WG927738
Pyrene	0.431		0.0345	5	11/19/2016 10:40	WG927738
1-Methylnaphthalene	ND		0.115	5	11/19/2016 10:40	WG927738
2-Methylnaphthalene	ND		0.115	5	11/19/2016 10:40	WG927738
2-Chloronaphthalene	ND		0.115	5	11/19/2016 10:40	WG927738
(S) Nitrobenzene-d5	*112*		*22.1-146*		*11/19/2016 10:40*	WG927738
(S) 2-Fluorobiphenyl	*112*		*40.6-122*		*11/19/2016 10:40*	WG927738
(S) p-Terphenyl-d14	*84.1*		*32.2-131*		*11/19/2016 10:40*	WG927738

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	11/17/2016 15:29	WG927486

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0303		0.0261	1	11/18/2016 15:26	WG927256

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	10.2		2.61	1	11/18/2016 13:16	WG927417
Barium	206		0.652	1	11/18/2016 13:16	WG927417
Cadmium	ND		0.652	1	11/18/2016 13:16	WG927417
Chromium	22.0		1.30	1	11/18/2016 13:16	WG927417
Lead	24.1		0.652	1	11/18/2016 13:16	WG927417
Selenium	ND		2.61	1	11/18/2016 13:16	WG927417
Silver	ND		1.30	1	11/18/2016 13:16	WG927417

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		5.22	1	11/17/2016 13:47	WG927102
Residual Range Organics (RRO)	ND		13.0	1	11/17/2016 13:47	WG927102
(S) o-Terphenyl	*95.5*		*50.0-150*		*11/17/2016 13:47*	WG927102

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00782	1	11/19/2016 07:03	WG927738
Acenaphthene	ND		0.00782	1	11/19/2016 07:03	WG927738
Acenaphthylene	ND		0.00782	1	11/19/2016 07:03	WG927738
Benzo(a)anthracene	ND		0.00782	1	11/19/2016 07:03	WG927738
Benzo(a)pyrene	ND		0.00782	1	11/19/2016 07:03	WG927738
Benzo(b)fluoranthene	ND		0.00782	1	11/19/2016 07:03	WG927738
Benzo(g,h,i)perylene	ND		0.00782	1	11/19/2016 07:03	WG927738
Benzo(k)fluoranthene	ND		0.00782	1	11/19/2016 07:03	WG927738
Chrysene	ND		0.00782	1	11/19/2016 07:03	WG927738
Dibenz(a,h)anthracene	ND		0.00782	1	11/19/2016 07:03	WG927738
Fluoranthene	ND		0.00782	1	11/19/2016 07:03	WG927738
Fluorene	ND		0.00782	1	11/19/2016 07:03	WG927738
Indeno(1,2,3-cd)pyrene	ND		0.00782	1	11/19/2016 07:03	WG927738
Naphthalene	ND		0.0261	1	11/19/2016 07:03	WG927738
Phenanthrene	ND		0.00782	1	11/19/2016 07:03	WG927738
Pyrene	ND		0.00782	1	11/19/2016 07:03	WG927738
1-Methylnaphthalene	ND		0.0261	1	11/19/2016 07:03	WG927738
2-Methylnaphthalene	ND		0.0261	1	11/19/2016 07:03	WG927738
2-Chloronaphthalene	ND		0.0261	1	11/19/2016 07:03	WG927738
(S) Nitrobenzene-d5	*115*		*22.1-146*		*11/19/2016 07:03*	WG927738
(S) 2-Fluorobiphenyl	*108*		*40.6-122*		*11/19/2016 07:03*	WG927738
(S) p-Terphenyl-d14	*98.9*		*32.2-131*		*11/19/2016 07:03*	WG927738

Method Blank (MB)

(MB) R3179077-1 11/17/16 15:29

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000700			

L873068-02 Original Sample (OS) • Duplicate (DUP)

(OS) L873068-02 11/17/16 15:29 • (DUP) R3179077-3 11/17/16 15:29

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.7	76.5	1	0.285		5

Laboratory Control Sample (LCS)

(LCS) R3179077-2 11/17/16 15:29

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3179263-1 11/18/16 14:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179263-2 11/18/16 14:19 • (LCSD) R3179263-3 11/18/16 14:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.284	0.290	95	97	80-120			2	20

L873021-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873021-01 11/18/16 14:24 • (MS) R3179263-4 11/18/16 14:27 • (MSD) R3179263-5 11/18/16 14:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.360	0.0314	0.31	0.314	77	79	1	75-125			1	20

Method Blank (MB)

(MB) R3179276-1 11/18/16 12:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179276-2 11/18/16 12:37 • (LCSD) R3179276-3 11/18/16 12:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	101	99.7	101	100	80-120			1	20
Barium	100	104	102	104	102	80-120			2	20
Cadmium	100	102	100	102	100	80-120			2	20
Chromium	100	98.9	97.4	99	97	80-120			1	20
Lead	100	102	99.7	102	100	80-120			2	20
Selenium	100	102	100	102	100	80-120			1	20
Silver	100	95.2	93.9	95.2	93.9	80-120			1.33	20

L873056-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873056-01 11/18/16 12:42 • (MS) R3179276-6 11/18/16 12:50 • (MSD) R3179276-7 11/18/16 12:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	107	2.28	107	109	98	99	1	75-125			1	20
Barium	107	37.5	143	147	98	102	1	75-125			3	20
Cadmium	107	ND	107	109	100	102	1	75-125			2	20
Chromium	107	5.88	109	109	96	96	1	75-125			1	20
Lead	107	4.60	112	114	100	102	1	75-125			1	20
Selenium	107	ND	107	109	100	101	1	75-125			2	20
Silver	107	ND	101	102	93.8	92.5	1	75-125			1.07	20

Method Blank (MB)

(MB) R3178992-1 11/17/16 10:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*78.0*			*50.0-150*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3178992-2 11/17/16 10:35 • (LCSD) R3178992-3 11/17/16 10:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Diesel Range Organics (DRO)	30.0	19.2	18.1	64.1	60.3	50.0-150			6.13	20
Residual Range Organics (RRO)	30.0	16.0	17.4	53.4	57.9	50.0-150			7.97	20
(S) o-Terphenyl				*56.4*	*56.0*	*50.0-150*				

L873068-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873068-02 11/17/16 13:47 • (MS) R3178992-4 11/17/16 14:08 • (MSD) R3178992-5 11/17/16 14:28

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Diesel Range Organics (DRO)	39.1	ND	33.9	32.9	84.0	81.5	1	50.0-150			3.02	20
Residual Range Organics (RRO)	39.1	ND	37.6	38.8	79.7	82.8	1	50.0-150			3.23	20
(S) o-Terphenyl					*78.7*	*77.9*		*50.0-150*				

Method Blank (MB)

(MB) R3179456-1 11/19/16 02:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*103*			*32.2-131*
(S) Nitrobenzene-d5	*106*			*22.1-146*
(S) 2-Fluorobiphenyl	*99.7*			*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179456-2 11/19/16 03:04 • (LCSD) R3179456-3 11/19/16 03:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0731	0.0756	91.4	94.5	50.3-130			3.32	20
Acenaphthene	0.0800	0.0660	0.0676	82.5	84.5	52.4-120			2.36	20
Acenaphthylene	0.0800	0.0647	0.0661	80.8	82.6	49.6-120			2.19	20
Benzo(a)anthracene	0.0800	0.0628	0.0667	78.5	83.4	46.7-125			6.03	20
Benzo(a)pyrene	0.0800	0.0690	0.0724	86.3	90.5	42.3-119			4.77	20
Benzo(b)fluoranthene	0.0800	0.0667	0.0678	83.4	84.7	43.6-124			1.59	20
Benzo(g,h,i)perylene	0.0800	0.0723	0.0762	90.4	95.2	45.1-132			5.20	20
Benzo(k)fluoranthene	0.0800	0.0722	0.0776	90.3	97.0	46.1-131			7.23	20
Chrysene	0.0800	0.0746	0.0786	93.3	98.3	49.5-131			5.19	20
Dibenz(a,h)anthracene	0.0800	0.0722	0.0755	90.3	94.3	44.8-133			4.40	20
Fluoranthene	0.0800	0.0747	0.0776	93.3	97.0	49.3-128			3.83	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179456-2 11/19/16 03:04 • (LCSD) R3179456-3 11/19/16 03:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0680	0.0700	85.0	87.5	50.6-121			2.82	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0743	0.0777	92.9	97.2	46.1-135			4.49	20
Naphthalene	0.0800	0.0631	0.0668	78.9	83.4	49.6-115			5.64	20
Phenanthrene	0.0800	0.0646	0.0668	80.8	83.5	48.8-121			3.31	20
Pyrene	0.0800	0.0686	0.0714	85.8	89.2	44.7-130			3.94	20
1-Methylnaphthalene	0.0800	0.0709	0.0739	88.7	92.4	50.6-122			4.14	20
2-Methylnaphthalene	0.0800	0.0683	0.0715	85.4	89.3	50.4-120			4.54	20
2-Chloronaphthalene	0.0800	0.0658	0.0681	82.2	85.1	53.9-121			3.43	20
(S) p-Terphenyl-d14				*97.5*	*98.5*	*32.2-131*				
(S) Nitrobenzene-d5				*109*	*109*	*22.1-146*				
(S) 2-Fluorobiphenyl				*98.8*	*103*	*40.6-122*				

L872982-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L872982-01 11/19/16 04:09 • (MS) R3179456-4 11/19/16 04:31 • (MSD) R3179456-5 11/19/16 04:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0709	0.0739	88.7	92.4	1	26.5-141			4.12	21.2
Acenaphthene	0.0800	ND	0.0591	0.0622	73.9	77.7	1	31.9-130			5.11	20
Acenaphthylene	0.0800	ND	0.0594	0.0608	74.3	76.0	1	33.7-129			2.24	20
Benzo(a)anthracene	0.0800	ND	0.0564	0.0595	70.6	74.4	1	18.3-136			5.35	24.6
Benzo(a)pyrene	0.0800	ND	0.0638	0.0678	79.7	84.8	1	16.9-135			6.22	25.2
Benzo(b)fluoranthene	0.0800	ND	0.0544	0.0614	67.9	76.7	1	10.0-134			12.2	30.9
Benzo(g,h,i)perylene	0.0800	ND	0.0622	0.0665	77.8	83.2	1	14.1-140			6.68	25.5
Benzo(k)fluoranthene	0.0800	ND	0.0731	0.0732	91.4	91.5	1	18.2-138			0.210	25.6
Chrysene	0.0800	ND	0.0746	0.0760	93.2	95.0	1	17.1-145			1.91	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0666	0.0699	83.3	87.4	1	18.5-138			4.87	24.3
Fluoranthene	0.0800	ND	0.0635	0.0691	78.4	85.4	1	15.4-144			8.35	27.1
Fluorene	0.0800	ND	0.0592	0.0633	74.0	79.1	1	23.5-136			6.65	20
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0661	0.0698	82.7	87.2	1	14.5-142			5.32	25.8
Naphthalene	0.0800	ND	0.0643	0.0642	80.4	80.3	1	29.2-128			0.140	20
Phenanthrene	0.0800	ND	0.0545	0.0590	67.2	72.8	1	20.1-134			7.91	23.6
Pyrene	0.0800	ND	0.0570	0.0613	70.4	75.8	1	11.0-148			7.35	26.1
1-Methylnaphthalene	0.0800	ND	0.0679	0.0695	84.8	86.9	1	28.4-137			2.38	20
2-Methylnaphthalene	0.0800	ND	0.0659	0.0673	82.4	84.1	1	26.6-137			2.07	20
2-Chloronaphthalene	0.0800	ND	0.0630	0.0656	78.7	82.0	1	38.6-126			4.13	20
(S) p-Terphenyl-d14					*97.0*	*101*		*32.2-131*				
(S) Nitrobenzene-d5					*117*	*119*		*22.1-146*				
(S) 2-Fluorobiphenyl					*110*	*113*		*40.6-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

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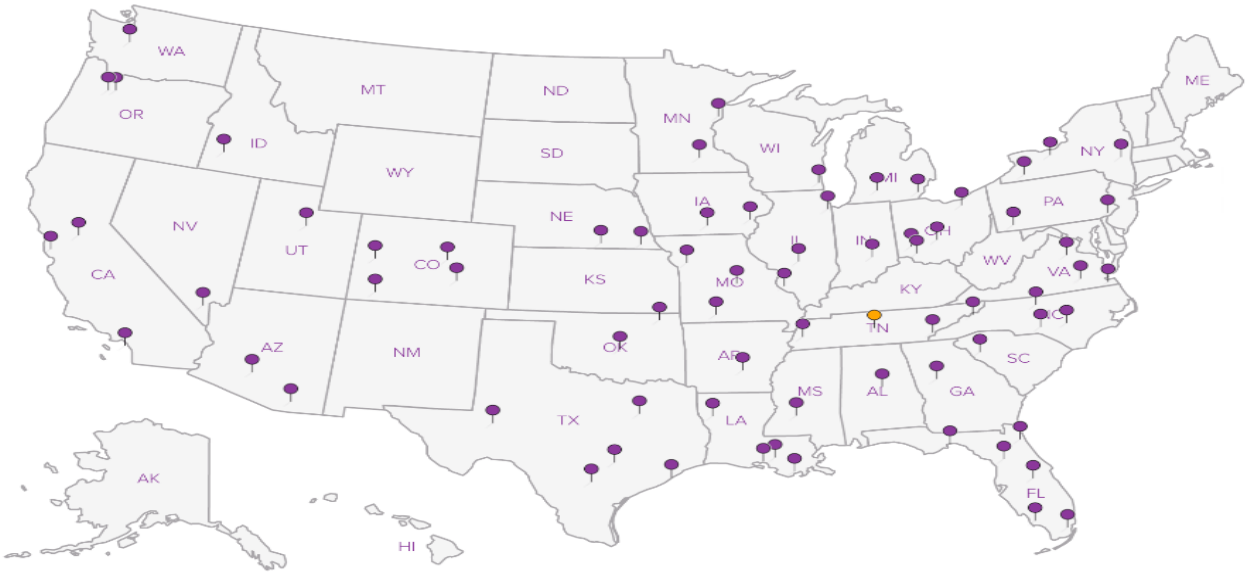

J207

GeoDesign, Inc.
15575 SW Sequoia Parkway Ste. 100
Portland, OR. 97224

Billing Information:
GeoDesign, Inc.
15575 SW Sequoia Parkway
Ste. 100
Portland, OR. 97224

Report to: Jeremy Zimber
Email to: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29
City/State Collected: Portland, OR

Phone: 503-968-8787
FAX:
Client Project #: HOYTSTPROP-7-01
ESC Key:

Collected by: Kyle Hoggart
Site/Facility ID#:
P.O.#:

Collected by (signature):
Immediately Packed on Ice N (Y)

Rush? (Lab MUST Be Notified)
____ Same Day..... 200%
____ Next Day..... 100%
____ Two Day..... 50%
____ Three Day..... 25%

Date Results Needed:
Email? __No __Yes
FAX? __No __Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DX 8082,PAHSIMD 8ozClr-NoPres	RCRA 8 Metals 2ozClr-NoPres	TCLP RCRA 8ozClr-NoPres	Remarks/Contaminant	Sample # (lab only)
HA-1 (1.0-2.0)	Grab	SS		11/15	1240	3	X	X			L873068-01
HA-2 (3.0-4.0)	↓	SS		11/15	1405	3	X	X			-02

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

CoCode GEODESPO (lab use only)
Template/Prelogin
Shipped Via:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	11/15	1450	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____
Temp: 2.1
Bottles Received: 6
Date: 11-16-16
Time: 0900

Condition: NBJ (lab use only)
CoC Seals Intact: ___ Y ___ N ___ NA
pH Checked:
NCF:

6827 1109 5448

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GEODESPOR	SDG#	L873068
Cooler Received/Opened On: **11/16/16**	Temperature Upon Receipt:	2.1 °c
Received By: **Richard Hughes**		
Signature:		

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?			✓
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?			—
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

November 29, 2016

GeoDesign Inc.

Sample Delivery Group:	L874310
Samples Received:	11/16/2016
Project Number:	HOYTSTPROP-7-01
Description:	Hoyt Street Properties - Block 29

Report To: Jeremy Zimber
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

TABLE OF CONTENTS

HA-1(1.0-2.0) L874310-01 Waste

Collected by: Kyle Haggart
Collected date/time: 11/15/16 12:40
Received date/time: 11/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG929955	1	11/27/16 17:56	11/28/16 21:20	ST
Preparation by Method 1311	WG929786	1	11/26/16 09:55	11/26/16 09:55	BG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/26/2016 9:55:56 AM	WG929786
Fluid	1		11/26/2016 9:55:56 AM	WG929786
Initial pH	8.60		11/26/2016 9:55:56 AM	WG929786
Final pH	5.18		11/26/2016 9:55:56 AM	WG929786

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.0500	5	1	11/28/2016 21:20	WG929955

Method Blank (MB)

(MB) R3181003-1 11/28/16 21:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead	U		0.0167	0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3181003-2 11/28/16 21:15 • (LCSD) R3181003-3 11/28/16 21:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead	10.0	10.1	10.2	101	102	80-120			1	20

L874310-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L874310-01 11/28/16 21:20 • (MS) R3181003-5 11/28/16 21:26 • (MSD) R3181003-6 11/28/16 21:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead	10.0	ND	10.3	10.3	103	103	1	75-125			0	20

Abbreviations and Definitions

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U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

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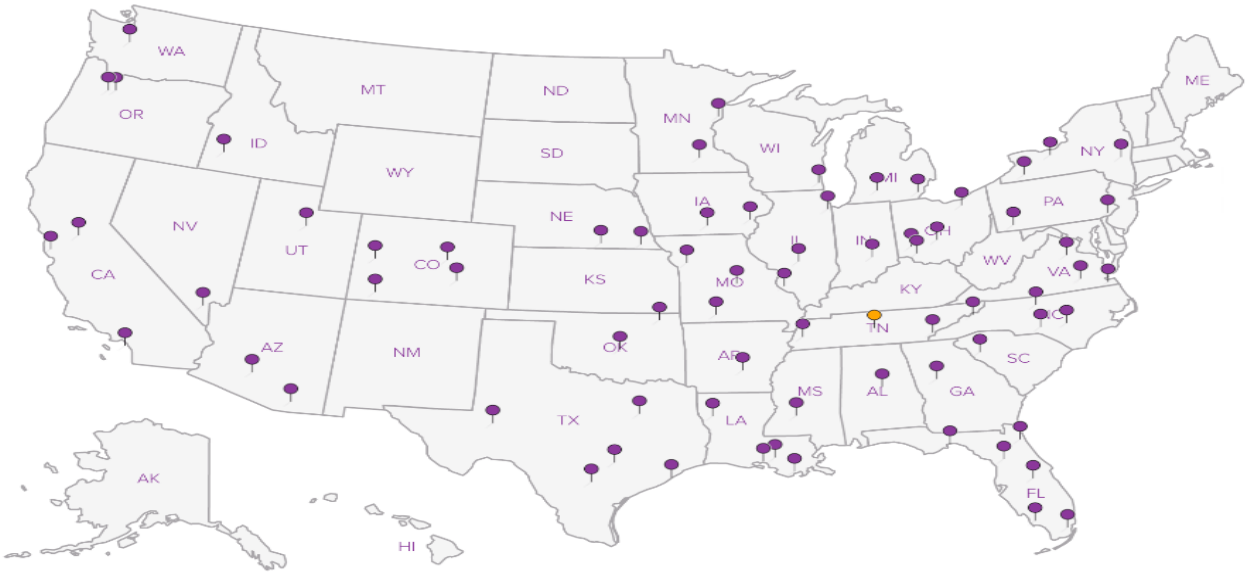

J207

GeoDesign, Inc.
15575 SW Sequoia Parkway Ste. 100
Portland, OR. 97224

Billing Information:
GeoDesign, Inc.
15575 SW Sequoia Parkway
Ste. 100
Portland, OR. 97224

Report to: Jeremy Zimber
Email to: jzimber@geodesigninc.com

Project Description: Hoyt Street Properties - Block 29
City/State Collected: Portland, OR
Phone: 503-968-8787
FAX:
Client Project #: HOYTSTPROP-7-01
ESC Key:
Collected by: Kyle Haggart
Site/Facility ID#:
P.O.#:
Collected by (signature):
Immediately Packed on Ice: N (Y)

Rush? (Lab MUST Be Notified)
____ Same Day..... 200%
____ Next Day..... 100%
____ Two Day..... 50%
____ Three Day..... 25%

Date Results Needed:
Email? __No __Yes
FAX? __No __Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Ctnrs	DX 8082 PAHSIMD 8ozClr-NoPres	RCRA 8 Metals 2ozClr-NoPres	TCLP RCRA 8ozClr-NoPres	Remarks/Contaminant	Sample # (lab only)
HA-1 (1.0-2.0)	Grab	SS		11/15	1240	3	X	X		L873310-01	~~L873310-~~
HA-2 (3.0-4.0)	↓	SS		11/15	1405	3	X	X			~~-02~~

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	11/15	1450	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____
Temp: 2.1
Bottles Received: 6
Date: 11-16-16
Time: 0900

Condition: NBJ (lab use only)
CoC Seals Intact: ___ Y ___ N ___ NA
pH Checked:
NCF:

6827 1109 5448

ESC LAB SCIENCES
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Mt. Juliet, TN 37122
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Phone: (615) 758-5858
Fax: (615) 758-5859

Chain of Custody Page 1 of 1

CoCode: GEODESPO (lab use only)
Template/Prelogin:
Shipped Via:

N 11/02/16

Andy Vann

From: Brian Ford
Sent: Tuesday, November 22, 2016 9:54 AM
To: Login; Sample Storage; Brian Ford
Subject: L873068-01 *GEODESPOR* re-log

Please relog L873068-01 for TCLP PBICP. Log as R5 due 11/30.

Thanks,

Brian Ford | Technical Service Representative
ESC Lab Sciences
12065 Lebanon Rd. | Mt. Juliet, TN 37122
Office: 615.773.9772 | Cell: 931.510.2229
bford@esclabsciences.com
www.esclabsciences.com

ACRONYMS AND ABBREVIATIONS

ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
BGS	below ground surface
BS	blank spike
BSD	blank spike duplicate
CFSL	Clean Fill Screening Level
DEQ	Oregon Department of Environmental Quality
ECSI	Environmental Cleanup Site Information
EPA	U.S. Environmental Protection Agency
I.D.	identification
IDW	investigation-derived waste
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
NE	not established
NV	non-volatile
OAR	Oregon Administrative Rule
pbv	percent by volume
PCB	polychlorinated biphenyl
PID	photoionization detector
ppm	parts per million
QC	quality control
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
RDL	reported detection limit
ROD	Record of Decision
RPD	relative percent difference
SVOC	semi-volatile organic compound
TCLP	Toxicity Characteristic Leaching Procedure
VOC	volatile organic compound