MEMORANDUM

DATE: October 22, 2018

TO: Ben Small, Central Valley School District

FROM: John Haney, PE, Hart Crowser

RE: **Focused Phase II Environmental Site Assessment; North Henry Road and East Sprague Avenue, Greenacres, Washington**
150014001/Task 01

CC: Jay Rowell, Central Valley School District; Jeff Jurgensen and Jonathan Miller, OAC Services, Inc.

Introduction

This memorandum summarizes the results and services conducted as part of a focused Phase II Environmental Site Assessment (ESA) at the property located near the intersection of North Henry Road and Sprague Avenue in Greenacres, Washington (herein referenced as "subject property"). The subject property is comprised of Spokane County tax parcels 55174.9009, .9011, .9014, and the eastern portion of 55174.9007. Phase II ESA activities for this project focused on assessing shallow soil (between ground surface and about 1.5 feet below ground surface [bgs]) along the boundary line that separates tax parcels 55174.9009, .9011, .9014, and .9022 as depicted in "Site Plan," Attachment 1.

Currently, the subject property is owned by the Spokane Gun Club which also owns and operates a trap/skeet firing range on the adjacent property to the west. Based on current site uses, likely contaminants of concern (COC) include lead (from shot originating at the adjacent trap/skeet firing range) and polycyclic aromatic hydrocarbons (PAHs) which commonly are found in the coal/petroleum binders used in the manufacture of clay pigeon targets. Our assessment activities consisted of excavating 23 test pits to depths of approximately 1.5 feet bgs along the tax parcel boundaries shown in Attachment 1 to observe subsurface conditions and collect soil samples for chemical analysis.

Field Activities

Hart Crowser mobilized to the subject property on July 30, 2018 and marked the test pit locations with stakes. After the test pit locations were staked, we requested an underground utility locate from the Inland Empire Utility Coordinating Council. Prior to excavating the test pits, we also reviewed draft

geotechnical boring and test pit logs provided by Budinger & Associates for explorations they completed between July 16 and 20, 2018.

We mobilized to the site on August 2, 2018 and excavated 23 test pits using a Bobcat 323 mini excavator. Materials removed from each excavation were stockpiled next to each test pit and used as backfill at the end of assessment activities. The test pits were excavated at the approximate locations shown on Attachment 1 to depths between ground surface and approximately 1.5 feet bgs.

We logged the materials encountered on test pit logs, making note of any observed lead shot or clay pigeon debris, and collected soil samples from approximately 6 inches and 12 inches bgs in each test pit. Soil encountered generally was consistent and was composed of silty gravel with sand, scattered cobbles, and trace amounts of clay. The soil encountered was dry and generally brown-gray to brown. No lead shot was observed at the surface of the test pit locations or in excavated soil; however, clay pigeon debris was observed in three test pits: TP-17, TP-18, and TP-19.

Soil samples were collected using decontaminated stainless-steel trowels from in-place soil on the sidewalls of each test pit and placed directly into laboratory-supplied containers. Each sample was logged on a chain of custody form and placed in a cooler with ice following collection.

After each of the test pits was logged and sampled, we used the mini-excavator to backfill and compact the excavations using stockpiled soil. Copies of the test pit logs and chain of custody forms are provided in “Field Documentation,” Attachment 2.

Chemical Analyses and Analytical Results

We transported the soil samples to TestAmerica’s Spokane Valley laboratory for analysis. Each of the samples collected from 6 inches bgs in the test pits was submitted for analysis of total lead, using US Environmental Protection Agency (EPA) Method 1610. Additionally, the samples collected from 6 inches bgs in the test pits that contained clay pigeon debris (TP-17, TP-18, and TP-19) were analyzed for PAHs using EPA Method 8270. The remaining soil samples collected from 12 inches bgs in each test pit were held by the laboratory pending results of the first round of analyses. Chemical analytical results are summarized in “Chemical Analytical Results,” Attachment 3. The original laboratory reports also are provided in Attachment 3.

Lead was detected in each of the 23 samples submitted for analysis. Concentrations of lead detected in test pits TP-12, TP-17, TP-18, and TP-19 exceeded Ecology’s Model Toxics Control Act (MTCA) cleanup level for unrestricted land use of 250 milligrams per kilogram (mg/kg). Lead concentrations in the remaining test pit samples were less than the applicable MTCA cleanup level.

Several PAHs, including carcinogenic PAHs (cPAHs), were detected in each of the samples analyzed. Detections of cPAHs in these samples, specifically benzo(a)pyrene and the PAH toxic equivalency (TEQ), are greater than the applicable MTCA cleanup levels.

Based on the initial chemical analytical results, the following samples were analyzed to better assess the extent of contamination:

- Samples collected from 12 inches bgs in test pit TP-12, TP-17, TP-18, and TP-19 were submitted for analysis of total lead;
- Samples collected from 6 inches bgs in test pits TP-6, TP-12, TP-14, TP-15, TP-16, TP-20, and TP-21 and samples collected from 12 inches bgs in test pits TP-17, TP-18, and TP-19 were submitted for analysis of PAHs using the method listed above;
- Samples collected from 6 inches bgs in test pits TP-12 and TP-15 through TP-20 were analyzed for the remaining Resource Conservation and Recovery Act (RCRA) eight metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) by EPA Methods 6010C and 7471B.

Lead was detected in each of the samples submitted from 12 inches bgs; however, only the concentration of lead detected in test pit TP-19 exceeded the MTCA cleanup level for unrestricted land use. Lead concentrations in the remaining samples analyzed from 12 inches bgs were less than the applicable MTCA cleanup level.

Several PAHs, including cPAHs, were detected in the additional samples analyzed from the 6-inch and 12-inch bgs samples. However, concentrations of benzo(a)pyrene and calculated PAH TEQs only exceeded MTCA cleanup levels in sample TP-20 from 6 inches bgs and samples TP-18 and TP-19 from 12 inches bgs.

Cadmium, mercury, selenium and silver were not detected above method reporting limits in the samples analyzed. Arsenic, barium and chromium were detected in each of the samples analyzed; however, only the concentration of arsenic detected in the sample collected from test pit TP-19 at 6 inches bgs was greater than the MTCA cleanup level.

Findings

Total lead and cPAH concentrations in soil samples collected from 6 inches bgs in test pits TP-17, TP-18, and TP-19 and from 12 inches bgs in test pit TP-19 were greater than MTCA cleanup levels for unrestricted land use. Additionally, the total lead concentration in the soil sample collected from 6 inches bgs in test pit TP-12 and arsenic, PAH, and calculated PAH TEQ concentrations in the soil sample collected from 12 inches bgs in test pit TP-20 were greater than the MTCA cleanup levels for unrestricted land use.

Detected lead concentrations in 10 samples (nine collected from 6 inches bgs and one collected from 12 inches bgs) were greater than 20 times the State Dangerous Waste characteristic criteria of 5 milligrams per liter (mg/L). By exceeding that criteria, the material could theoretically be designated as a Dangerous Waste. If designated as a Dangerous Waste, cleanup of this material will be more complicated: remediation will require more stringent dust control during excavation, more stringent health and safety standards during handling, increased documentation of handling and disposal, more stringent storage requirements during handling, specially trained truck drivers, etcetera. These increased requirements equate to more expensive cleanup of the contamination. Based on planned site use, the cleanup option likely would be limited to off-site disposal at an RCRA Subtitle C landfill.

Results of this focused Phase II ESA indicate that, at least a portion of the site, is impacted by metals and PAHs. However, our findings are limited to a small set of sample locations (primarily in the north-south direction) and an assessment of the extent of contamination will require additional assessment.

Attachments:

Attachment 1 – Site Plan
Attachment 2 – Field Documentation
Attachment 3 – Chemical Analytical Results

ATTACHMENT 1
Site Plan

Legend

- Test Pit
- Test Pit with Contaminant Concentration(s) that Exceeds MTCA Cleanup Level
- Parcel Boundary

Chemical Analytical Results - Soil
Total Lead and PAHs

Sample ID	Sampling Date	Sample Depth inches bgs	Lead mg/kg	Benzo[a]pyrene µg/kg	cPAH TEQ µg/kg
TP-1-6	8/2/2018	6	25	--	--
TP-2-6	8/2/2018	6	27	--	--
TP-3-6	8/2/2018	6	26	--	--
TP-4-6	8/2/2018	6	23	--	--
TP-5-6	8/2/2018	6	26	--	--
TP-6-6	8/2/2018	6	41	--	--
TP-7-6	8/2/2018	6	44	--	--
TP-8-6	8/2/2018	6	73	--	--
TP-9-6	8/2/2018	6	75	--	--
TP-10-6	8/2/2018	6	140	--	--
TP-11-6	8/2/2018	6	72	--	--
TP-12-6	8/2/2018	6	**560**	--	--
TP-12-12	8/2/2018	12	13	--	--
TP-13-6	8/2/2018	6	110	--	--
TP-14-6	8/2/2018	6	200	28	37
TP-15-6	8/2/2018	6	100	14	17
TP-16-6	8/2/2018	6	41	29	38
TP-17-6	8/2/2018	6	**470**	**1200**	**1561**
TP-17-12	8/2/2018	12	200	62	82
TP-18-6	8/2/2018	6	**620**	**4600**	**6040**
TP-18-12	8/2/2018	12	36	**630**	**820**
TP-19-6	8/2/2018	6	**1720**	**7000**	**9225**
TP-19-12	8/2/2018	12	**430**	**2300**	**2896**
TP-20-6	8/2/2018	6	110	**210**	**272**
TP-21-6	8/2/2018	6	27	36	47
TP-22-6	8/2/2018	6	33	--	--
TP-23-6	8/2/2018	6	37	--	--
MTCA Method A Cleanup Level Unrestricted Land Use			**250**	**100**	**100**

bgs = below ground surface
- - = sample not analyzed

0 125 250 500
Scale in Feet

N

Focused Phase II ESA
North Henry Road and East Sprague Avenue
Greenacres, Washington

Site Plan

150-014-001 9/18

HARTCROWSER

Attachment 1

Document Path: F:\Notebooks\150014001_CVSD_Phase_I_and_II_ESAs\GIS\150014001-AA (SPlan).mxd Date: 9/4/2018 User Name: ericlindquist

ATTACHMENT 2
Field Documentation

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

SAND or GRAVEL Relative Density	N (Blows/Foot)	SILT or CLAY Consistency	N (Blows/Foot)
Very loose	0 to 4	Very soft	0 to 1
Loose	5 to 10	Soft	2 to 4
Medium dense	11 to 30	Medium stiff	5 to 8
Dense	31 to 50	Stiff	9 to 15
Very dense	>50	Very stiff	16 to 30
		Hard	>30

Moisture

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

USCS Soil Classification Chart (ASTM D 2487)

Major Divisions			Symbols: Graph	Symbols: USCS	Typical Descriptions
Coarse Grained Soils: More than 50% of Material Retained on No. 200 Sieve	Gravel and Gravelly Soils: More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (<5% fines)		GW	Well-Graded Gravel; Well-Graded Gravel with Sand
				GP	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Gravels (5-12% fines)		GW-GM	Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand
				GW-GC	Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand
				GP-GM	Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand
				GP-GC	Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand
		Gravels with Fines (>12% fines)		GM	Silty Gravel; Silty Gravel with Sand
				GC	Clayey Gravel; Clayey Gravel with Sand
	Sand and Sandy Soils: More than 50% of Coarse Fraction Passing No. 4 Sieve	Sands with few Fines (<5% fines)		SW	Well-Graded Sand; Well-Graded Sand with Gravel
				SP	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Sands (5-12% fines)		SW-SM	Well-Graded Sand with Silt Well-Graded Sand with Silt and Gravel
				SW-SC	Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel
				SP-SM	Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel
				SP-SC	Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel
		Sands with Fines (>12% fines)		SM	Silty Sand; Silty Sand with Gravel
				SC	Clayey Sand; Clayey Sand with Gravel
Fine Grained Soils: More than 50% of Material Passing No. 200 Sieve	Silts			ML	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
				MH	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
	Silty Clay (based on Atterberg Limits)			CL-ML	Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay
	Clays			CL	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
				CH	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
	Organics			OL/OH	Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil
Highly Organic (>50% organic material)				PT	Peat - Decomposing Vegetation - Fibrous to Amorphous Texture

Minor Constituents

	Estimated Percentage
Sand, Gravel	
Trace	<5
Few	5 - 15
Cobbles, Boulders	
Trace	<5
Few	5 - 10
Little	15 - 25
Some	30 - 45

Soil Test Symbols

%F	Percent Passing No. 200 Sieve
AL	Atterberg Limits (%)
	Liquid Limit (LL)
	Water Content (WC)
	Plastic Limit (PL)
CA	Chemical Analysis
CAUC	Consolidated Anisotropic Undrained Compression
CAUE	Consolidated Anisotropic Undrained Extension
CBR	California Bearing Ratio
CIDC	Consolidated Drained Isotropic Triaxial Compression
CIUC	Consolidated Isotropic Undrained Compression
CK0DC	Consolidated Drained k0 Triaxial Compression
CK0DSS	Consolidated k0 Undrained Direct Simple Shear
CK0UC	Consolidated k0 Undrained Compression
CK0UE	Consolidated k0 Undrained Extension
CRSCN	Constant Rate of Strain Consolidation
DSS	Direct Simple Shear
DT	In Situ Density
GS	Grain Size Classification
HYD	Hydrometer
ILCN	Incremental Load Consolidation
K0CN	k0 Consolidation
kc	Constant Head Permeability
kf	Falling Head Permeability
MD	Moisture Density Relationship
OC	Organic Content
OT	Tests by Others
P	Pressuremeter
PID	Photoionization Detector Reading
PP	Pocket Penetrometer
SG	Specific Gravity
TRS	Torsional Ring Shear
TV	Torvane
UC	Unconfined Compression
UUC	Unconsolidated Undrained Triaxial Compression
VS	Vane Shear
WC	Water Content (%)

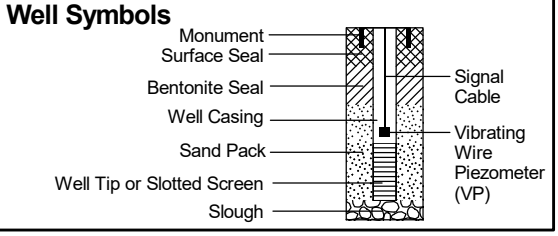
Groundwater Indicators

- Groundwater Level on Date or At Time of Drilling (ATD)
- Groundwater Level on Date Measured in Piezometer
- Groundwater Seepage (Test Pits)

Sample Symbols

- 1.5" I.D. Split Spoon
- 3.0" I.D. Split Spoon
- Modified California Sampler
- Core Run
- Sonic Core
- Thin-walled Sampler
- Grab
- Cuttings

Well Symbols



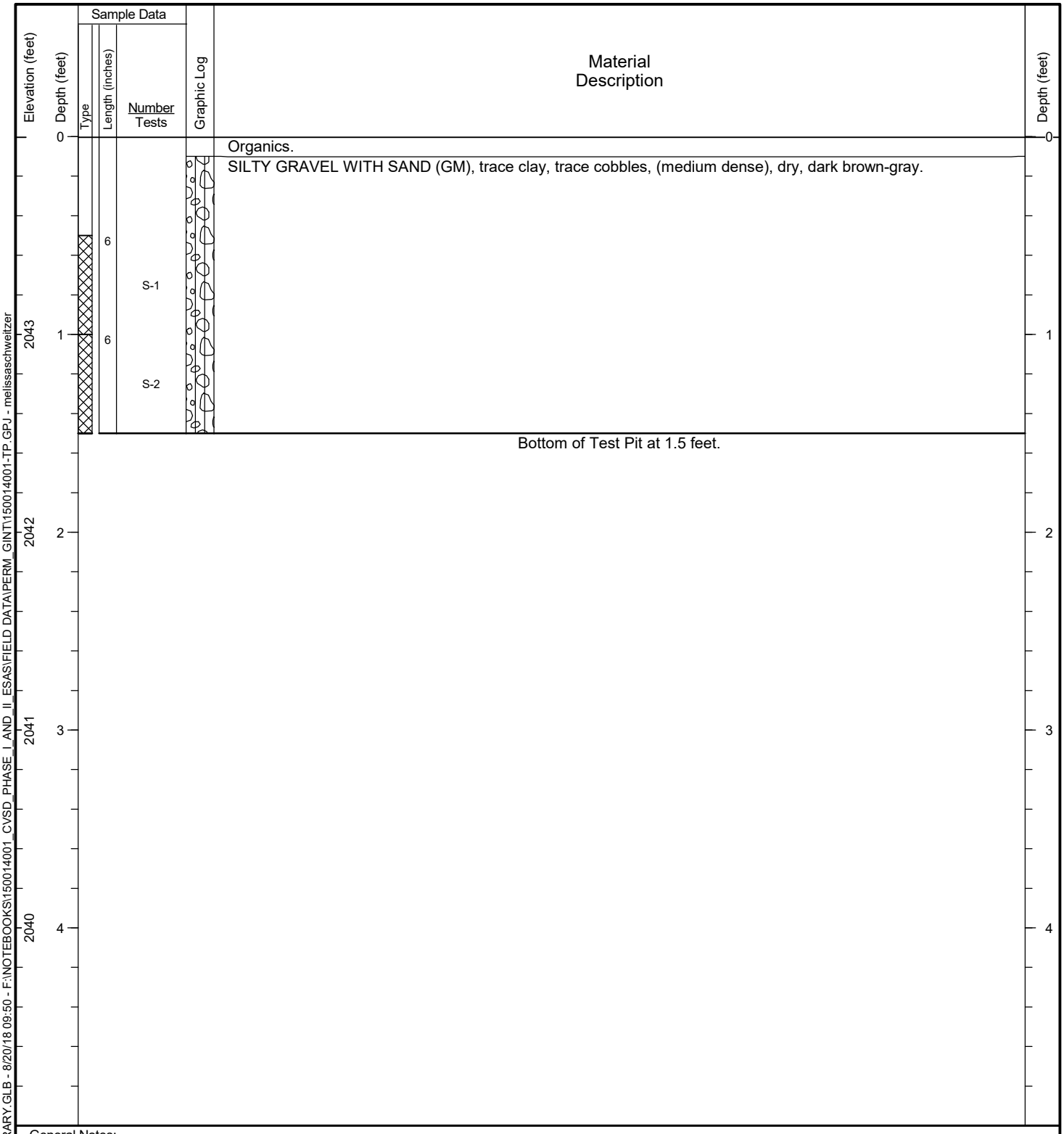
HARTCROWSER

Project: Focused Phase II ESA
Location: North Henry Road & East Sprague Avenue
Project No.: 150-014-001

Key to Exploration Logs

Figure A-1
Sheet 1 of 1

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.662487 Long: -117.137576		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2044 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-1**	Figure **A-2** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.662213 Long: -117.137572		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2042 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2041	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2		Grades to light brown.	
2040	2					Bottom of Test Pit at 1.5 feet.	2
2039	3						3
2038	4						4

General Notes:

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HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-2**	Figure **A-3** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.661939 Long: -117.137567		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2042 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2041	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, (medium dense), dry, gray-brown.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2040	2						2
2039	3						3
2038	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-3**	Figure **A-4** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.661665 Long: -117.137562		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2045	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2		Grades to light brown.	
2044	2					Bottom of Test Pit at 1.5 feet.	2
2043	3						3
2042	4						4

General Notes:
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HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-4**	Figure **A-5** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.661390 Long: -117.137557		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2045	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2		Grades to light brown.	
2044	2					Bottom of Test Pit at 1.5 feet.	2
2043	3						3
2042	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
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HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-5**	Figure **A-6** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.661116 Long: -117.137552		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum:			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2045	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, gray-brown.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2044	2						2
2043	3						3
2042	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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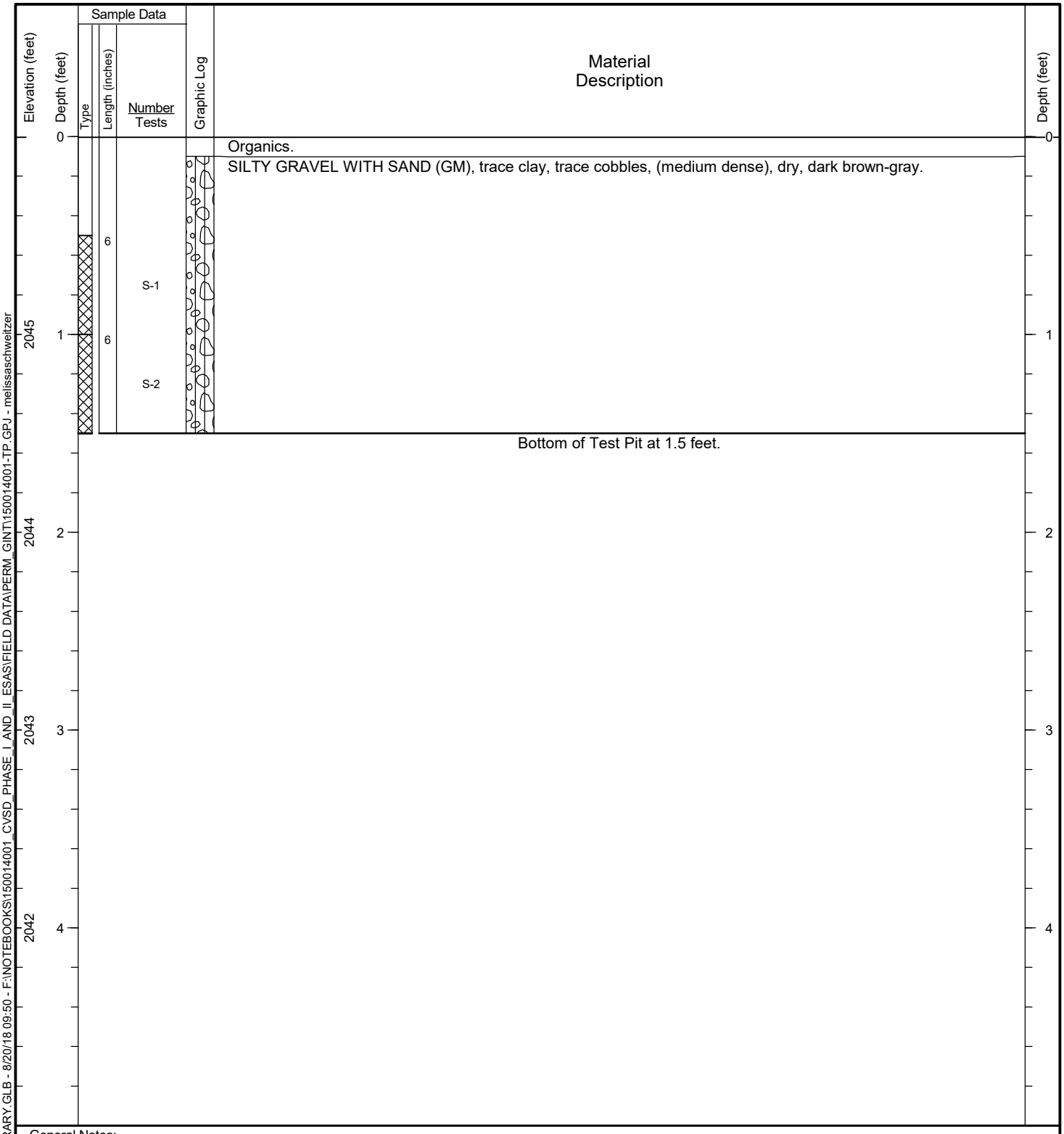
HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-6**	Figure **A-7** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.660842 Long: -117.137548		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			



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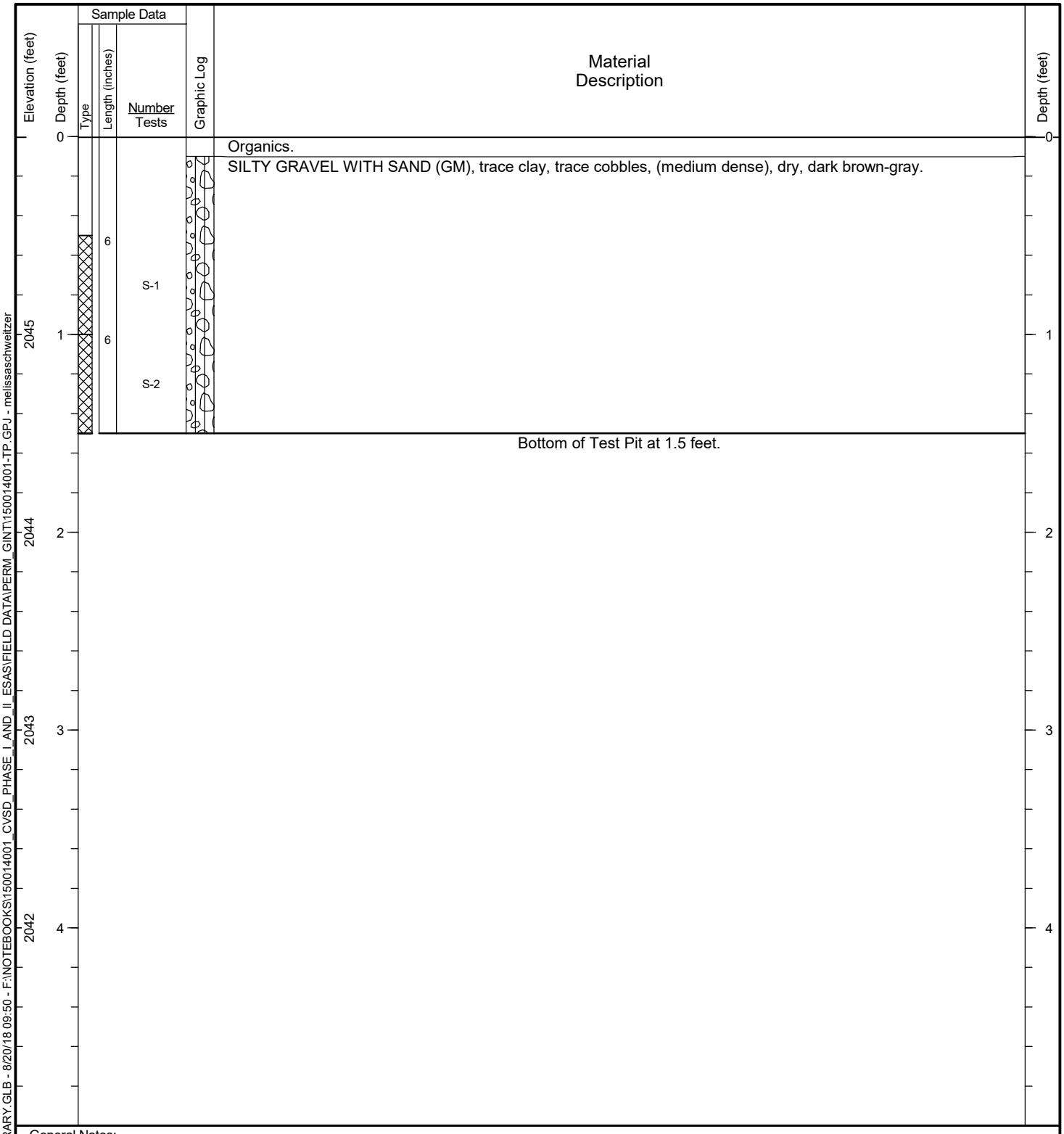
HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-7**	Figure **A-8** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.660568 Long: -117.137543		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-8**	Figure **A-9** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.660294 Long: -117.137538		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2046 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
						SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	
			6	S-1		Grades to light brown.	
2045	1		6	S-2			1
						Bottom of Test Pit at 1.5 feet.	
2044	2						2
2043	3						3
2042	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER

Project: Focused Phase II ESA
Location: North Henry Road & East Sprague Avenue
Project No.: 150-014-001

Test Pit Log
TP-9

Figure **A-10**
Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.660020 Long: -117.137533		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-10**	Figure **A-11** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.659771 Long: -117.137441		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-11**	Figure **A-12** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.659581 Long: -117.137148		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
			6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, (medium dense), dry, gray-brown.	
2047	1		6	S-2		Grades to brown.	1
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-12**	Figure **A-13** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.659391 Long: -117.136855		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-13**	Figure **A-14** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.659201 Long: -117.136563		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2050 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2049	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, (medium dense), dry, gray-brown.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2048	2						2
2047	3						3
2046	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-14**	Figure **A-15** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.659011 Long: -117.136270		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2		Grades to light brown.	
2046	2					Bottom of Test Pit at 1.5 feet.	2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-15**	Figure **A-16** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.658821 Long: -117.135978		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, gray-brown.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-16**	Figure **A-17** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.658678 Long: -117.135640		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray, clay pigeon debris.	1
			6	S-2		Grades to light brown.	
2046	2					Bottom of Test Pit at 1.5 feet.	2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-17**	Figure **A-18** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.658404 Long: -117.135642		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2048 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2047	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, gray-brown, clay pigeon debris.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2046	2						2
2045	3						3
2044	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER

Project: Focused Phase II ESA
Location: North Henry Road & East Sprague Avenue
Project No.: 150-014-001

Test Pit Log
TP-18

Figure **A-19**
Sheet **1 of 1**

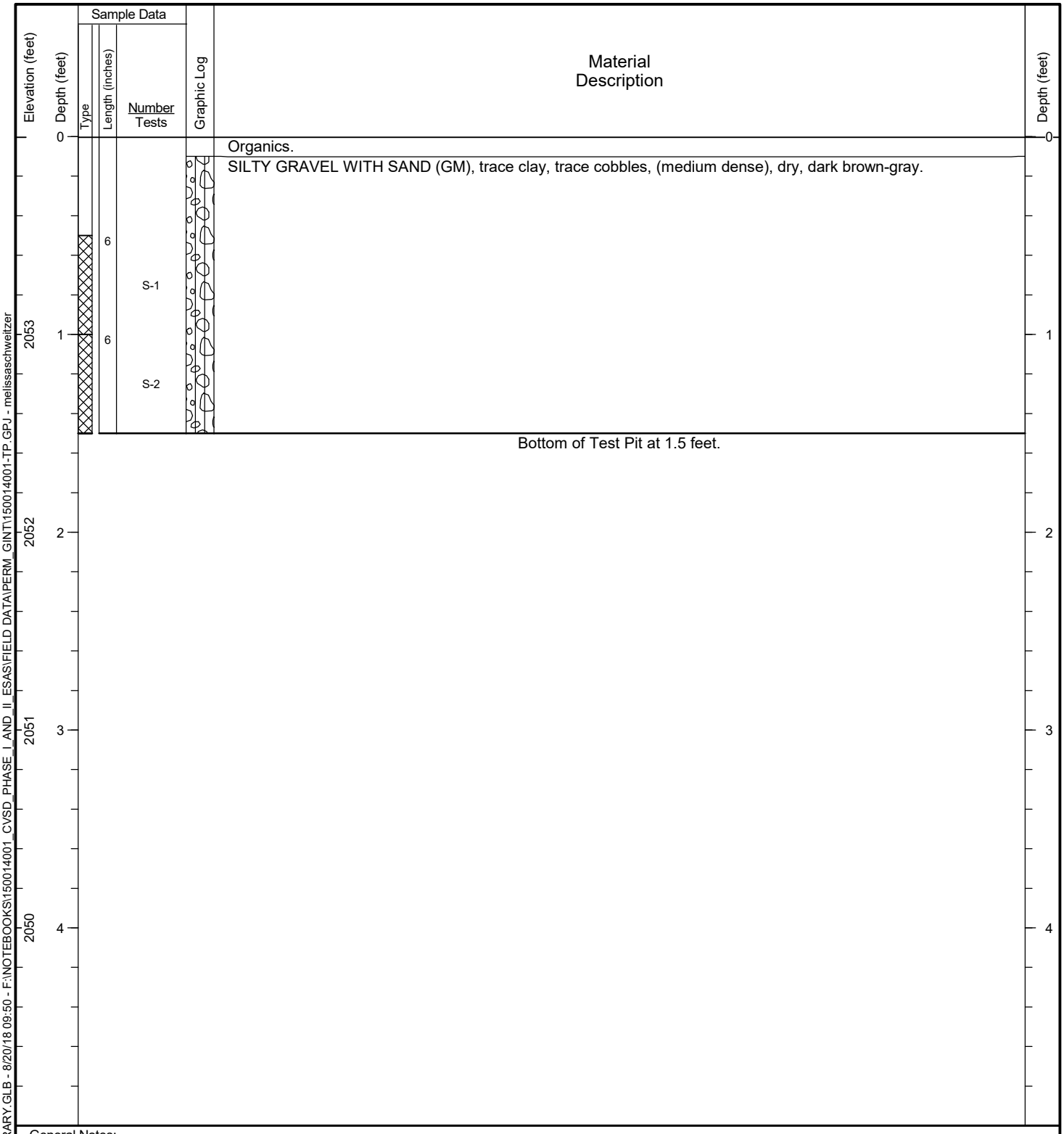
Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.658130 Long: -117.135644		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2050 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2049	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray, clay pigeon debris.	1
			6	S-2		Grades to light brown.	
2048	2					Bottom of Test Pit at 1.5 feet.	2
2047	3						3
2046	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-19**	Figure **A-20** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.657856 Long: -117.135646		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2054 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-20**	Figure **A-21** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.657582 Long: -117.135648		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2060 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2059	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2		Grades to light brown.	
2058	2					Bottom of Test Pit at 1.5 feet.	2
2057	3						3
2056	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-21**	Figure **A-22** Sheet **1 of 1**

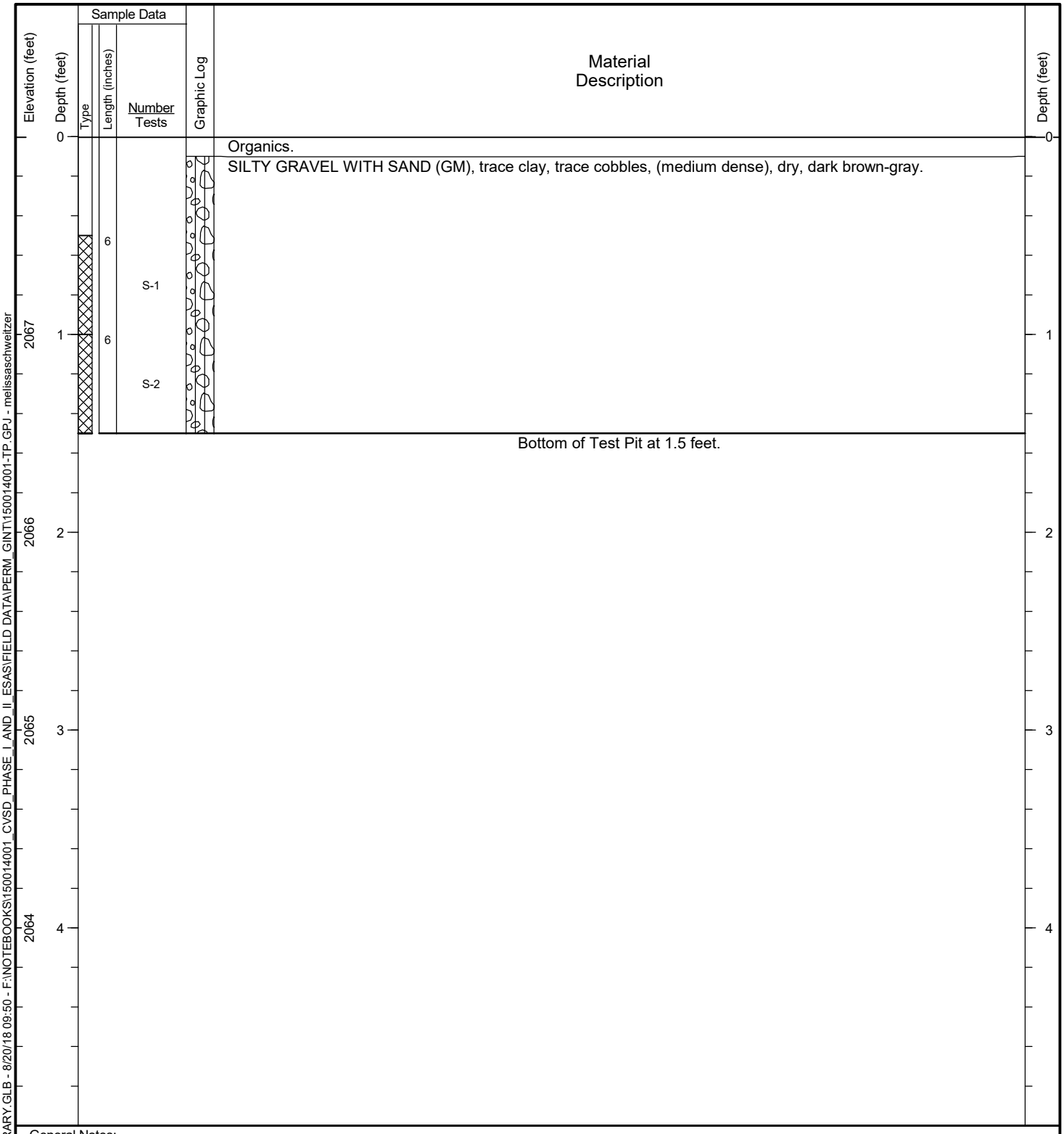
Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.657307 Long: -117.135650		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2064 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			

Elevation (feet)	Depth (feet)	Sample Data: Type	Sample Data: Length (inches)	Sample Data: Number / Tests	Graphic Log	Material Description	Depth (feet)
	0					Organics.	0
2063	1		6	S-1		SILTY GRAVEL WITH SAND (GM), trace clay, trace cobbles, (medium dense), dry, dark brown-gray.	1
			6	S-2			
						Bottom of Test Pit at 1.5 feet.	
2062	2						2
2061	3						3
2060	4						4

General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-22**	Figure **A-23** Sheet **1 of 1**

Date Started: 8/2/18	Date Completed: 8/2/18	Contractor/Crew:	
Logged by: W. McDonald	Checked by: J. Haney	Rig Model/Type: Bobcat 323 / Mini Excavator	
Location: Lat: 47.657102 Long: -117.135652		Total Depth: 1.5 feet	Depth to Seepage: Not Encountered
Ground Surface Elevation: 2068 feet		Comments:	
Horizontal Datum: WGS 84			
Vertical Datum: NAVD 88			



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: Focused Phase II ESA Location: North Henry Road & East Sprague Avenue Project No.: 150-014-001	Test Pit Log **TP-23**	Figure **A-24** Sheet **1 of 1**

ATTACHMENT 3
Chemical Analytical Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: 590-9053-1
Client Project/Site: Focused Phase II ESA

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
8/7/2018 4:07:52 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Job ID: 590-9053-1

Laboratory: TestAmerica Spokane

Narrative

Receipt
The samples were received on 8/2/2018 2:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.6º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: TP-19-6 (590-9053-1), TP-19-12 (590-9053-2), TP-20-6 (590-9053-3), TP-20-12 (590-9053-4), TP-21-6 (590-9053-5), TP-21-12 (590-9053-6), TP-22-6 (590-9053-7), TP-22-12 (590-9053-8), TP-23-6 (590-9053-9), TP-23-12 (590-9053-10), TP-17-6 (590-9053-11), TP-17-12 (590-9053-12), TP-15-6 (590-9053-13), TP-15-12 (590-9053-14), TP-13-6 (590-9053-15), TP-13-12 (590-9053-16), TP-11-6 (590-9053-17), TP-11-12 (590-9053-18), TP-10-6 (590-9053-19), TP-10-12 (590-9053-20), TP-1-6 (590-9053-21), TP-1-12 (590-9053-22), TP-9-6 (590-9053-23), TP-9-12 (590-9053-24), TP-8-6 (590-9053-25), TP-8-12 (590-9053-26), TP-7-6 (590-9053-27), TP-7-12 (590-9053-28), TP-5-6 (590-9053-29), TP-5-12 (590-9053-30), TP-4-6 (590-9053-31), TP-4-12 (590-9053-32), TP-2-6 (590-9053-33), TP-2-12 (590-9053-34), TP-18-6 (590-9053-35), TP-18-12 (590-9053-36), TP-16-6 (590-9053-37), TP-16-12 (590-9053-38), TP-14-6 (590-9053-39), TP-14-12 (590-9053-40), TP-12-6 (590-9053-41), TP-12-12 (590-9053-42), TP-6-6 (590-9053-43), TP-6-12 (590-9053-44), TP-3-6 (590-9053-45) and TP-3-12 (590-9053-46). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA
Method 8270D SIM: The following samples were diluted to bring the concentration of target analytes within the calibration range: TP-19-6 (590-9053-1) and TP-18-6 (590-9053-35). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-9053-1	TP-19-6	Solid	08/02/18 09:50	08/02/18 14:45
590-9053-3	TP-20-6	Solid	08/02/18 10:00	08/02/18 14:45
590-9053-5	TP-21-6	Solid	08/02/18 10:10	08/02/18 14:45
590-9053-7	TP-22-6	Solid	08/02/18 10:20	08/02/18 14:45
590-9053-9	TP-23-6	Solid	08/02/18 10:30	08/02/18 14:45
590-9053-11	TP-17-6	Solid	08/02/18 10:50	08/02/18 14:45
590-9053-13	TP-15-6	Solid	08/02/18 11:00	08/02/18 14:45
590-9053-15	TP-13-6	Solid	08/02/18 11:10	08/02/18 14:45
590-9053-17	TP-11-6	Solid	08/02/18 11:30	08/02/18 14:45
590-9053-19	TP-10-6	Solid	08/02/18 11:40	08/02/18 14:45
590-9053-21	TP-1-6	Solid	08/02/18 12:50	08/02/18 14:45
590-9053-23	TP-9-6	Solid	08/02/18 11:50	08/02/18 14:45
590-9053-25	TP-8-6	Solid	08/02/18 12:00	08/02/18 14:45
590-9053-27	TP-7-6	Solid	08/02/18 12:10	08/02/18 14:45
590-9053-29	TP-5-6	Solid	08/02/18 12:20	08/02/18 14:45
590-9053-31	TP-4-6	Solid	08/02/18 12:30	08/02/18 14:45
590-9053-33	TP-2-6	Solid	08/02/18 12:40	08/02/18 14:45
590-9053-35	TP-18-6	Solid	08/02/18 10:50	08/02/18 14:45
590-9053-37	TP-16-6	Solid	08/02/18 11:11	08/02/18 14:45
590-9053-39	TP-14-6	Solid	08/02/18 11:30	08/02/18 14:45
590-9053-41	TP-12-6	Solid	08/02/18 11:50	08/02/18 14:45
590-9053-43	TP-6-6	Solid	08/02/18 12:25	08/02/18 14:45
590-9053-45	TP-3-6	Solid	08/02/18 12:45	08/02/18 14:45

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Client Sample ID: TP-19-6

Lab Sample ID: 590-9053-1
Date Collected: 08/02/18 09:50
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 93.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
2-Methylnaphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
1-Methylnaphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Acenaphthylene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Acenaphthene	**550**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Fluorene	**170**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Phenanthrene	**2700**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Anthracene	**670**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Fluoranthene	**6300**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Pyrene	**7800**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Benzo[a]anthracene	**5100**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Chrysene	**6500**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Benzo[b]fluoranthene	**7600**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Benzo[k]fluoranthene	**3300**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Benzo[a]pyrene	**7000**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Indeno[1,2,3-cd]pyrene	**4300**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Dibenz(a,h)anthracene	**1300**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10
Benzo[g,h,i]perylene	**5100**		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85*		*23 - 120*	*08/06/18 12:38*	*08/06/18 17:05*	*10*
2-Fluorobiphenyl (Surr)	*93*		*38 - 123*	*08/06/18 12:38*	*08/06/18 17:05*	*10*
p-Terphenyl-d14	*99*		*68 - 136*	*08/06/18 12:38*	*08/06/18 17:05*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2100**		4.7		mg/Kg	☼	08/03/18 09:19	08/07/18 12:07	2

Client Sample ID: TP-20-6

Lab Sample ID: 590-9053-3
Date Collected: 08/02/18 10:00
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 94.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**110**		5.5		mg/Kg	☼	08/03/18 09:19	08/07/18 12:30	2

Client Sample ID: TP-21-6

Lab Sample ID: 590-9053-5
Date Collected: 08/02/18 10:10
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 94.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**27**		4.8		mg/Kg	☼	08/03/18 09:19	08/07/18 12:33	2

Client Sample ID: TP-22-6

Lab Sample ID: 590-9053-7
Date Collected: 08/02/18 10:20
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 95.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	33		4.8		mg/Kg	☼	08/03/18 09:19	08/07/18 12:47	2

Client Sample ID: TP-23-6

Lab Sample ID: 590-9053-9
Date Collected: 08/02/18 10:30
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 95.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	37		4.0		mg/Kg	☼	08/03/18 09:19	08/07/18 12:50	2

Client Sample ID: TP-17-6

Lab Sample ID: 590-9053-11
Date Collected: 08/02/18 10:50
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 96.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Acenaphthylene	ND		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Acenaphthene	58		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Fluorene	17		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Phenanthrene	340		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Anthracene	76		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Fluoranthene	970		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Pyrene	1200		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Benzo[a]anthracene	780		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Chrysene	1100		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Benzo[b]fluoranthene	1300		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Benzo[k]fluoranthene	450		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Benzo[a]pyrene	1200		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Indeno[1,2,3-cd]pyrene	740		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Dibenz(a,h)anthracene	230		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1
Benzo[g,h,i]perylene	910		10		ug/Kg	☼	08/06/18 12:38	08/06/18 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82*		*23 - 120*	*08/06/18 12:38*	*08/06/18 17:30*	*1*
2-Fluorobiphenyl (Surr)	*89*		*38 - 123*	*08/06/18 12:38*	*08/06/18 17:30*	*1*
p-Terphenyl-d14	*101*		*68 - 136*	*08/06/18 12:38*	*08/06/18 17:30*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	470		4.7		mg/Kg	☼	08/03/18 09:19	08/07/18 12:54	2

Client Sample ID: TP-15-6

Lab Sample ID: 590-9053-13
Date Collected: 08/02/18 11:00
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 95.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		5.2		mg/Kg	☼	08/03/18 09:19	08/07/18 12:58	2

Client Sample ID: TP-13-6
Date Collected: 08/02/18 11:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-15
Matrix: Solid
Percent Solids: 96.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		5.1		mg/Kg	☼	08/03/18 09:19	08/07/18 13:01	2

Client Sample ID: TP-11-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-17
Matrix: Solid
Percent Solids: 94.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	72		4.4		mg/Kg	☼	08/03/18 09:19	08/07/18 13:05	2

Client Sample ID: TP-10-6
Date Collected: 08/02/18 11:40
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-19
Matrix: Solid
Percent Solids: 95.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	140		4.6		mg/Kg	☼	08/03/18 09:19	08/07/18 13:09	2

Client Sample ID: TP-1-6
Date Collected: 08/02/18 12:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-21
Matrix: Solid
Percent Solids: 95.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	25		4.9		mg/Kg	☼	08/03/18 09:19	08/07/18 13:12	2

Client Sample ID: TP-9-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-23
Matrix: Solid
Percent Solids: 89.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	75		5.4		mg/Kg	☼	08/03/18 09:19	08/07/18 13:16	2

Client Sample ID: TP-8-6
Date Collected: 08/02/18 12:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-25
Matrix: Solid
Percent Solids: 94.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	73		4.4		mg/Kg	☼	08/03/18 09:19	08/07/18 13:20	2

Client Sample ID: TP-7-6
Date Collected: 08/02/18 12:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-27
Matrix: Solid
Percent Solids: 94.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	44		4.9		mg/Kg	☼	08/03/18 09:19	08/07/18 13:33	2

Client Sample ID: TP-5-6

Lab Sample ID: 590-9053-29
Date Collected: 08/02/18 12:20
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 96.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	26		4.0		mg/Kg	☼	08/03/18 09:19	08/07/18 13:37	2

Client Sample ID: TP-4-6

Lab Sample ID: 590-9053-31
Date Collected: 08/02/18 12:30
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 94.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	23		4.9		mg/Kg	☼	08/03/18 09:19	08/07/18 13:41	2

Client Sample ID: TP-2-6

Lab Sample ID: 590-9053-33
Date Collected: 08/02/18 12:40
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 95.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27		5.0		mg/Kg	☼	08/03/18 09:19	08/07/18 13:44	2

Client Sample ID: TP-18-6

Lab Sample ID: 590-9053-35
Date Collected: 08/02/18 10:50
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 92.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
2-Methylnaphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
1-Methylnaphthalene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Acenaphthylene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Acenaphthene	290		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Fluorene	ND		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Phenanthrene	1600		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Anthracene	370		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Fluoranthene	3900		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Pyrene	4700		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Benzo[a]anthracene	3100		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Chrysene	4200		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Benzo[b]fluoranthene	5200		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Benzo[k]fluoranthene	2000		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Benzo[a]pyrene	4600		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Indeno[1,2,3-cd]pyrene	2800		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Dibenz(a,h)anthracene	880		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10
Benzo[g,h,i]perylene	3300		100		ug/Kg	☼	08/06/18 12:38	08/06/18 17:55	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*78*		*23 - 120*	*08/06/18 12:38*	*08/06/18 17:55*	*10*
2-Fluorobiphenyl (Surr)	*86*		*38 - 123*	*08/06/18 12:38*	*08/06/18 17:55*	*10*
p-Terphenyl-d14	*96*		*68 - 136*	*08/06/18 12:38*	*08/06/18 17:55*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	620		5.1		mg/Kg	☼	08/03/18 09:19	08/07/18 13:48	2

Client Sample ID: TP-16-6 — **Lab Sample ID: 590-9053-37**
Date Collected: 08/02/18 11:11 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 95.0**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41		4.9		mg/Kg	☼	08/03/18 09:19	08/07/18 13:52	2

Client Sample ID: TP-14-6 — **Lab Sample ID: 590-9053-39**
Date Collected: 08/02/18 11:30 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 94.8**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	200		4.4		mg/Kg	☼	08/03/18 09:22	08/07/18 14:23	2

Client Sample ID: TP-12-6 — **Lab Sample ID: 590-9053-41**
Date Collected: 08/02/18 11:50 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 96.0**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	560		4.3		mg/Kg	☼	08/03/18 09:22	08/07/18 14:27	2

Client Sample ID: TP-6-6 — **Lab Sample ID: 590-9053-43**
Date Collected: 08/02/18 12:25 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 96.6**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41		5.2		mg/Kg	☼	08/03/18 09:22	08/07/18 14:31	2

Client Sample ID: TP-3-6 — **Lab Sample ID: 590-9053-45**
Date Collected: 08/02/18 12:45 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 95.9**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	26		5.0		mg/Kg	☼	08/03/18 09:22	08/07/18 14:35	2

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-18127/1-A
Matrix: Solid
Analysis Batch: 18130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
2-Methylnaphthalene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
1-Methylnaphthalene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Acenaphthylene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Acenaphthene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Fluorene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Phenanthrene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Anthracene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Fluoranthene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Pyrene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Benzo[a]anthracene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Chrysene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Benzo[b]fluoranthene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Benzo[k]fluoranthene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Benzo[a]pyrene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Dibenz(a,h)anthracene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1
Benzo[g,h,i]perylene	ND		10		ug/Kg		08/06/18 12:38	08/06/18 15:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*84*		*23 - 120*	*08/06/18 12:38*	*08/06/18 15:01*	*1*
2-Fluorobiphenyl (Surr)	*88*		*38 - 123*	*08/06/18 12:38*	*08/06/18 15:01*	*1*
p-Terphenyl-d14	*109*		*68 - 136*	*08/06/18 12:38*	*08/06/18 15:01*	*1*

Lab Sample ID: LCS 590-18127/2-A
Matrix: Solid
Analysis Batch: 18130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	204		ug/Kg		76	41 - 121
2-Methylnaphthalene	267	223		ug/Kg		84	39 - 132
1-Methylnaphthalene	267	246		ug/Kg		92	46 - 131
Acenaphthylene	267	199		ug/Kg		75	56 - 123
Acenaphthene	267	207		ug/Kg		78	43 - 140
Fluorene	267	247		ug/Kg		92	54 - 131
Phenanthrene	267	222		ug/Kg		83	55 - 141
Anthracene	267	240		ug/Kg		90	60 - 129
Fluoranthene	267	247		ug/Kg		93	63 - 141
Pyrene	267	257		ug/Kg		96	62 - 139
Benzo[a]anthracene	267	257		ug/Kg		96	61 - 136
Chrysene	267	263		ug/Kg		99	57 - 144
Benzo[b]fluoranthene	267	251		ug/Kg		94	66 - 141
Benzo[k]fluoranthene	267	259		ug/Kg		97	63 - 150
Benzo[a]pyrene	267	249		ug/Kg		94	60 - 133
Indeno[1,2,3-cd]pyrene	267	252		ug/Kg		94	55 - 142
Dibenz(a,h)anthracene	267	256		ug/Kg		96	60 - 150
Benzo[g,h,i]perylene	267	262		ug/Kg		98	58 - 147

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-18127/2-A
Matrix: Solid
Analysis Batch: 18130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*89*		*23 - 120*
2-Fluorobiphenyl (Surr)	*92*		*38 - 123*
p-Terphenyl-d14	*113*		*68 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-18093/2-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0		mg/Kg		08/03/18 09:19	08/06/18 20:11	1

Lab Sample ID: LCS 590-18093/1-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.9		mg/Kg		100	80 - 120

Lab Sample ID: 590-9053-1 MS
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2100		50.4	1590	4	mg/Kg	☼	-951	75 - 125

Lab Sample ID: 590-9053-1 MSD
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	2100		51.9	1720	4	mg/Kg	☼	-663	75 - 125	8	20

Lab Sample ID: 590-9053-1 DU
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	2100		1950		mg/Kg	☼	6	20

Lab Sample ID: MB 590-18095/2-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0		mg/Kg		08/03/18 09:22	08/06/18 22:08	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 590-18095/1-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	51.6		mg/Kg		103	80 - 120

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-19-6
Date Collected: 08/02/18 09:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-19-6
Date Collected: 08/02/18 09:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-1
Matrix: Solid
Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.36 g	2 mL	18127	08/06/18 12:38	MO	TAL SPK
Total/NA	Analysis	8270D SIM		10			18130	08/06/18 17:05	NMI	TAL SPK
Total/NA	Prep	3050B			1.36 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:07	JSP	TAL SPK

Client Sample ID: TP-20-6
Date Collected: 08/02/18 10:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-20-6
Date Collected: 08/02/18 10:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-3
Matrix: Solid
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:30	JSP	TAL SPK

Client Sample ID: TP-21-6
Date Collected: 08/02/18 10:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-21-6
Date Collected: 08/02/18 10:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-5
Matrix: Solid
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.31 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:33	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-22-6
Date Collected: 08/02/18 10:20
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-22-6
Date Collected: 08/02/18 10:20
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-7
Matrix: Solid
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.31 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:47	JSP	TAL SPK

Client Sample ID: TP-23-6
Date Collected: 08/02/18 10:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-23-6
Date Collected: 08/02/18 10:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-9
Matrix: Solid
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.55 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:50	JSP	TAL SPK

Client Sample ID: TP-17-6
Date Collected: 08/02/18 10:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-17-6
Date Collected: 08/02/18 10:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-11
Matrix: Solid
Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.66 g	2 mL	18127	08/06/18 12:38	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18130	08/06/18 17:30	NMI	TAL SPK
Total/NA	Prep	3050B			1.32 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:54	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-15-6
Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-15-6
Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13
Matrix: Solid
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.20 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 12:58	JSP	TAL SPK

Client Sample ID: TP-13-6
Date Collected: 08/02/18 11:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-13-6
Date Collected: 08/02/18 11:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-15
Matrix: Solid
Percent Solids: 96.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.23 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:01	JSP	TAL SPK

Client Sample ID: TP-11-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-11-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-17
Matrix: Solid
Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.44 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:05	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-10-6
Date Collected: 08/02/18 11:40
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-10-6
Date Collected: 08/02/18 11:40
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-19
Matrix: Solid
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.36 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:09	JSP	TAL SPK

Client Sample ID: TP-1-6
Date Collected: 08/02/18 12:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-1-6
Date Collected: 08/02/18 12:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-21
Matrix: Solid
Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.28 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:12	JSP	TAL SPK

Client Sample ID: TP-9-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-23
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-9-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-23
Matrix: Solid
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.25 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:16	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-8-6
Date Collected: 08/02/18 12:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-8-6
Date Collected: 08/02/18 12:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-25
Matrix: Solid
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:20	JSP	TAL SPK

Client Sample ID: TP-7-6
Date Collected: 08/02/18 12:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-27
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-7-6
Date Collected: 08/02/18 12:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-27
Matrix: Solid
Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:33	JSP	TAL SPK

Client Sample ID: TP-5-6
Date Collected: 08/02/18 12:20
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-29
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-5-6
Date Collected: 08/02/18 12:20
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-29
Matrix: Solid
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.56 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:37	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-4-6 — **Lab Sample ID: 590-9053-31**
Date Collected: 08/02/18 12:30 — **Matrix: Solid**
Date Received: 08/02/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-4-6 — **Lab Sample ID: 590-9053-31**
Date Collected: 08/02/18 12:30 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 94.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:41	JSP	TAL SPK

Client Sample ID: TP-2-6 — **Lab Sample ID: 590-9053-33**
Date Collected: 08/02/18 12:40 — **Matrix: Solid**
Date Received: 08/02/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-2-6 — **Lab Sample ID: 590-9053-33**
Date Collected: 08/02/18 12:40 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 95.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.25 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:44	JSP	TAL SPK

Client Sample ID: TP-18-6 — **Lab Sample ID: 590-9053-35**
Date Collected: 08/02/18 10:50 — **Matrix: Solid**
Date Received: 08/02/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-18-6 — **Lab Sample ID: 590-9053-35**
Date Collected: 08/02/18 10:50 — **Matrix: Solid**
Date Received: 08/02/18 14:45 — **Percent Solids: 92.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.60 g	2 mL	18127	08/06/18 12:38	MO	TAL SPK
Total/NA	Analysis	8270D SIM		10			18130	08/06/18 17:55	NMI	TAL SPK
Total/NA	Prep	3050B			1.26 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:48	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-16-6
Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-16-6
Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37
Matrix: Solid
Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	18093	08/03/18 09:19	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 13:52	JSP	TAL SPK

Client Sample ID: TP-14-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-39
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-14-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-39
Matrix: Solid
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	18095	08/03/18 09:22	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 14:23	JSP	TAL SPK

Client Sample ID: TP-12-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-41
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-12-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-41
Matrix: Solid
Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.44 g	50 mL	18095	08/03/18 09:22	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 14:27	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Client Sample ID: TP-6-6
Date Collected: 08/02/18 12:25
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-43
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-6-6
Date Collected: 08/02/18 12:25
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-43
Matrix: Solid
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	50 mL	18095	08/03/18 09:22	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 14:31	JSP	TAL SPK

Client Sample ID: TP-3-6
Date Collected: 08/02/18 12:45
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-45
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18106	08/03/18 15:46	CWD	TAL SPK

Client Sample ID: TP-3-6
Date Collected: 08/02/18 12:45
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-45
Matrix: Solid
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.26 g	50 mL	18095	08/03/18 09:22	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18163	08/07/18 14:35	JSP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc. TestAmerica Job ID: 590-9053-1
Project/Site: Focused Phase II ESA

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010C	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/7/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH'S	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS
	TP-19-6		8/2/18	0950	SOIL	X	X		
	TP-19-12			0951		X	X		HOLD
	TP-20-6			1000		X			
	TP-20-12			1001		X			HOLD
WDM	~~TP-20-6~~								
WDM	~~TP-20-12~~								
	TP-26-6			1010		X			
	TP-21-12			1011		X			HOLD
	TP-22-6			1020		X			
	TP-22-12			1021		X			HOLD
	TP-23-6			1030		X			
	TP-23-12			1031		X			HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
RICHARD MCDONALD	TIME	JOHN HANEY	TIME
PRINT NAME	1330	PRINT NAME	1330
HART CROWSER		HC	
COMPANY		COMPANY	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/3/18
JOHN HANEY	TIME	Sheila Kraft	TIME
PRINT NAME	14:44	PRINT NAME	1445
HC		TA SDG	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER

White to Lab Yellow to Project Manager Pink to Sample Custodian 7.6 CIRCO4

Sample Custody Record

Samples Shipped to: TEST AMERICA

PAGE 2 OF 3

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/7/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PH. II ESA

HART CROWSER CONTACT J. HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-17-6		8/2/18	1050	Soil	X	X		
	TP-17-12			1057					HOLD
	TP-15-6			1100		X			
	TP-15-12			1101					HOLD
	TP-13-6			1110		X			
	TP-13-12			1111					HOLD
	TP-11-6			1130		X			
	TP-11-12			1131					HOLD
	TP-10-6			1140		X			
	TP-10-12			1141					HOLD
	TP-16-6			~~1150~~ 1250		X			
	TP-16-12			~~1151~~ 1251					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: WARD MCDONALD	TIME	PRINT NAME: JOHN HANEY	TIME
COMPANY: HART CROWSER	1330	COMPANY: HC	1330
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: JOHN HANEY	TIME	PRINT NAME: Sheila Kidd	TIME
COMPANY: HC	14:44	COMPANY: TA SDG	1445

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6°C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

PAGE 3 OF 3

Hart Crowser, Inc.
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/7/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT J HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-9-6		8/2/18	1150	Soil	X			
	TP-9-12			1151					HOLD
	TP-8-6			1200		X			
	TP-8-12			1201					HOLD
	TP-7-6			1210		X			
	TP-7-12			1211					HOLD
	TP-5-6			1220		X			
	TP-5-12			1221					HOLD
	TP-4-6			1230		X			
	TP-4-12			1231					HOLD
	TP-2-6			1240		X			
	TP-2-12			1241					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: WARD MCDONALD	TIME	PRINT NAME: JOHN HANEY	TIME
COMPANY: HART CROWSER	1330	COMPANY: HC	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: JOHN HANEY	8/2/18	SIGNATURE: Sheila Kraft	8/3/18
PRINT NAME: HC	TIME 14:44	PRINT NAME: TA SDG	TIME 1445
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☑72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6 °C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA, SPOKANE

HART CROWSER

Hart Crowser, Inc.
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/7/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: JTH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	LEAD (TOTAL)	PAH	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-18-6	SOIL	8/2/18	10:50	S	X	X	1	
	TP-18-12			10:54				1	HOLD
	TP-16-6			11:11		X		1	
	TP-16-12			11:15				1	HOLD
	TP-14-6			11:30		X		1	
	TP-14-12			11:35				1	HOLD
	TP-12-6			11:50		X		1	
	TP-12-12			11:55				1	HOLD
	TP-6-6			12:25		X		1	
	TP-6-12			12:30				1	HOLD
	TP-3-6			12:45		X		1	
	TP-3-12			12:50				1	HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE JOHN HANEY	8/2/18	SIGNATURE Sheila Ford	8/2/18
PRINT NAME	TIME	PRINT NAME Sheila Ford	TIME
COMPANY	14:44	COMPANY TA SPO	1445
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian T. GIROUX

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-9053-1

Login Number: 9053
List Number: 1
Creator: Kratz, Sheila J

List Source: TestAmerica Spokane

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: 590-9053-2
Client Project/Site: Focused Phase II ESA

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
8/10/2018 4:40:38 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Job ID: 590-9053-2

Laboratory: TestAmerica Spokane

Narrative

Receipt
The samples were received on 8/2/2018 2:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.6º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: TP-19-6 (590-9053-1), TP-19-12 (590-9053-2), TP-20-6 (590-9053-3), TP-20-12 (590-9053-4), TP-21-6 (590-9053-5), TP-21-12 (590-9053-6), TP-22-6 (590-9053-7), TP-22-12 (590-9053-8), TP-23-6 (590-9053-9), TP-23-12 (590-9053-10), TP-17-6 (590-9053-11), TP-17-12 (590-9053-12), TP-15-6 (590-9053-13), TP-15-12 (590-9053-14), TP-13-6 (590-9053-15), TP-13-12 (590-9053-16), TP-11-6 (590-9053-17), TP-11-12 (590-9053-18), TP-10-6 (590-9053-19), TP-10-12 (590-9053-20), TP-1-6 (590-9053-21), TP-1-12 (590-9053-22), TP-9-6 (590-9053-23), TP-9-12 (590-9053-24), TP-8-6 (590-9053-25), TP-8-12 (590-9053-26), TP-7-6 (590-9053-27), TP-7-12 (590-9053-28), TP-5-6 (590-9053-29), TP-5-12 (590-9053-30), TP-4-6 (590-9053-31), TP-4-12 (590-9053-32), TP-2-6 (590-9053-33), TP-2-12 (590-9053-34), TP-18-6 (590-9053-35), TP-18-12 (590-9053-36), TP-16-6 (590-9053-37), TP-16-12 (590-9053-38), TP-14-6 (590-9053-39), TP-14-12 (590-9053-40), TP-12-6 (590-9053-41), TP-12-12 (590-9053-42), TP-6-6 (590-9053-43), TP-6-12 (590-9053-44), TP-3-6 (590-9053-45) and TP-3-12 (590-9053-46). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

The following samples were activated for 6010C Lead and 8270 SIM PAHs analysis by the client on 08/10/18: TP-19-12 (590-9053-2), TP-17-12 (590-9053-12), TP-18-12 (590-9053-36) and TP-12-12 (590-9053-42). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-9053-2	TP-19-12	Solid	08/02/18 09:51	08/02/18 14:45
590-9053-12	TP-17-12	Solid	08/02/18 10:51	08/02/18 14:45
590-9053-36	TP-18-12	Solid	08/02/18 10:54	08/02/18 14:45
590-9053-42	TP-12-12	Solid	08/02/18 11:55	08/02/18 14:45

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Glossary

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

Client Sample ID: TP-19-12

Date Collected: 08/02/18 09:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-2

Matrix: Solid
Percent Solids: 79.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**26**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
2-Methylnaphthalene	**23**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
1-Methylnaphthalene	**18**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Acenaphthylene	ND		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Acenaphthene	**160**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Fluorene	**54**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Phenanthrene	**850**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Anthracene	**220**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Fluoranthene	**2000**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Pyrene	**2400**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Benzo[a]anthracene	**1700**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Chrysene	**2100**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Benzo[b]fluoranthene	**2600**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Benzo[k]fluoranthene	**1100**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Benzo[a]pyrene	**2300**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Indeno[1,2,3-cd]pyrene	**1400**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Dibenz(a,h)anthracene	**450**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1
Benzo[g,h,i]perylene	**1600**		13		ug/Kg	☼	08/08/18 08:54	08/08/18 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*78*		*23 - 120*	*08/08/18 08:54*	*08/08/18 15:22*	*1*
2-Fluorobiphenyl (Surr)	*82*		*38 - 123*	*08/08/18 08:54*	*08/08/18 15:22*	*1*
p-Terphenyl-d14	*90*		*68 - 136*	*08/08/18 08:54*	*08/08/18 15:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**430**		5.8		mg/Kg	☼	08/08/18 14:27	08/09/18 12:46	2

Client Sample ID: TP-17-12

Date Collected: 08/02/18 10:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-12

Matrix: Solid
Percent Solids: 95.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Acenaphthylene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Acenaphthene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Fluorene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Phenanthrene	**18**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Anthracene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Fluoranthene	**51**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Pyrene	**61**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Benzo[a]anthracene	**42**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Chrysene	**56**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Benzo[b]fluoranthene	**71**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Benzo[k]fluoranthene	**28**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Benzo[a]pyrene	**62**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Indeno[1,2,3-cd]pyrene	**38**		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1

Client Sample ID: TP-17-12

Date Collected: 08/02/18 10:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-12
Matrix: Solid
Percent Solids: 95.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	13		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1
Benzo[g,h,i]perylene	44		10		ug/Kg	☼	08/08/18 14:27	08/08/18 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*73*		*23 - 120*	*08/08/18 14:27*	*08/08/18 15:47*	*1*
2-Fluorobiphenyl (Surr)	*81*		*38 - 123*	*08/08/18 14:27*	*08/08/18 15:47*	*1*
p-Terphenyl-d14	*86*		*68 - 136*	*08/08/18 14:27*	*08/08/18 15:47*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	200		5.1		mg/Kg	☼	08/08/18 14:27	08/09/18 12:49	2

Client Sample ID: TP-18-12

Date Collected: 08/02/18 10:54
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-36
Matrix: Solid
Percent Solids: 94.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Acenaphthylene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Acenaphthene	31		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Fluorene	ND		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Phenanthrene	180		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Anthracene	43		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Fluoranthene	520		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Pyrene	580		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Benzo[a]anthracene	400		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Chrysene	530		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Benzo[b]fluoranthene	690		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Benzo[k]fluoranthene	260		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Benzo[a]pyrene	630		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Indeno[1,2,3-cd]pyrene	370		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Dibenz(a,h)anthracene	130		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1
Benzo[g,h,i]perylene	470		10		ug/Kg	☼	08/08/18 14:27	08/08/18 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*75*		*23 - 120*	*08/08/18 14:27*	*08/08/18 16:12*	*1*
2-Fluorobiphenyl (Surr)	*82*		*38 - 123*	*08/08/18 14:27*	*08/08/18 16:12*	*1*
p-Terphenyl-d14	*85*		*68 - 136*	*08/08/18 14:27*	*08/08/18 16:12*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36		4.3		mg/Kg	☼	08/08/18 14:27	08/09/18 13:03	2

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Client Sample ID: TP-12-12
Date Collected: 08/02/18 11:55
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-42
Matrix: Solid
Percent Solids: 95.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		5.3		mg/Kg	☼	08/08/18 14:27	08/09/18 13:06	2

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-18176/1-A
Matrix: Solid
Analysis Batch: 18173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18176

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
2-Methylnaphthalene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
1-Methylnaphthalene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Acenaphthylene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Acenaphthene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Fluorene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Phenanthrene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Anthracene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Fluoranthene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Pyrene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Benzo[a]anthracene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Chrysene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Benzo[b]fluoranthene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Benzo[k]fluoranthene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Benzo[a]pyrene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Dibenz(a,h)anthracene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1
Benzo[g,h,i]perylene	ND		10		ug/Kg		08/08/18 08:54	08/08/18 10:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*74*		*23 - 120*	*08/08/18 08:54*	*08/08/18 10:11*	*1*
2-Fluorobiphenyl (Surr)	*78*		*38 - 123*	*08/08/18 08:54*	*08/08/18 10:11*	*1*
p-Terphenyl-d14	*96*		*68 - 136*	*08/08/18 08:54*	*08/08/18 10:11*	*1*

Lab Sample ID: LCS 590-18176/2-A
Matrix: Solid
Analysis Batch: 18173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18176

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	176		ug/Kg		66	41 - 121
2-Methylnaphthalene	267	201		ug/Kg		75	39 - 132
1-Methylnaphthalene	267	227		ug/Kg		85	46 - 131
Acenaphthylene	267	187		ug/Kg		70	56 - 123
Acenaphthene	267	202		ug/Kg		76	43 - 140
Fluorene	267	236		ug/Kg		88	54 - 131
Phenanthrene	267	228		ug/Kg		86	55 - 141
Anthracene	267	248		ug/Kg		93	60 - 129
Fluoranthene	267	231		ug/Kg		87	63 - 141
Pyrene	267	237		ug/Kg		89	62 - 139
Benzo[a]anthracene	267	242		ug/Kg		91	61 - 136
Chrysene	267	242		ug/Kg		91	57 - 144
Benzo[b]fluoranthene	267	227		ug/Kg		85	66 - 141
Benzo[k]fluoranthene	267	245		ug/Kg		92	63 - 150
Benzo[a]pyrene	267	231		ug/Kg		86	60 - 133
Indeno[1,2,3-cd]pyrene	267	248		ug/Kg		93	55 - 142
Dibenz(a,h)anthracene	267	247		ug/Kg		93	60 - 150
Benzo[g,h,i]perylene	267	255		ug/Kg		96	58 - 147

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-18176/2-A
Matrix: Solid
Analysis Batch: 18173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18176

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	*80*		*23 - 120*
2-Fluorobiphenyl (Surr)	*81*		*38 - 123*
p-Terphenyl-d14	*95*		*68 - 136*

Lab Sample ID: LCSD 590-18176/3-A
Matrix: Solid
Analysis Batch: 18173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18176

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			267	150		ug/Kg		56	41 - 121	17	35
2-Methylnaphthalene			267	188		ug/Kg		71	39 - 132	6	35
1-Methylnaphthalene			267	217		ug/Kg		81	46 - 131	4	35
Acenaphthylene			267	185		ug/Kg		70	56 - 123	1	35
Acenaphthene			267	195		ug/Kg		73	43 - 140	4	35
Fluorene			267	220		ug/Kg		82	54 - 131	7	35
Phenanthrene			267	212		ug/Kg		80	55 - 141	7	35
Anthracene			267	240		ug/Kg		90	60 - 129	3	35
Fluoranthene			267	231		ug/Kg		87	63 - 141	0	35
Pyrene			267	223		ug/Kg		84	62 - 139	6	35
Benzo[a]anthracene			267	229		ug/Kg		86	61 - 136	6	35
Chrysene			267	248		ug/Kg		93	57 - 144	2	35
Benzo[b]fluoranthene			267	232		ug/Kg		87	66 - 141	3	35
Benzo[k]fluoranthene			267	218		ug/Kg		82	63 - 150	12	35
Benzo[a]pyrene			267	220		ug/Kg		83	60 - 133	5	35
Indeno[1,2,3-cd]pyrene			267	230		ug/Kg		86	55 - 142	7	35
Dibenz(a,h)anthracene			267	235		ug/Kg		88	60 - 150	5	35
Benzo[g,h,i]perylene			267	234		ug/Kg		88	58 - 147	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	*77*		*23 - 120*
2-Fluorobiphenyl (Surr)	*82*		*38 - 123*
p-Terphenyl-d14	*90*		*68 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-18194/2-A
Matrix: Solid
Analysis Batch: 18230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0		mg/Kg		08/08/18 14:27	08/09/18 12:19	1

Lab Sample ID: LCS 590-18194/1-A
Matrix: Solid
Analysis Batch: 18230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18194

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

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Client Sample ID: TP-19-12
Date Collected: 08/02/18 09:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18197	08/08/18 15:41	MO	TAL SPK

Client Sample ID: TP-19-12
Date Collected: 08/02/18 09:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-2
Matrix: Solid
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.00 g	2 mL	18176	08/08/18 08:54	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18173	08/08/18 15:22	NMI	TAL SPK
Total/NA	Prep	3050B			1.30 g	50 mL	18194	08/08/18 14:27	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18230	08/09/18 12:46	JSP	TAL SPK

Client Sample ID: TP-17-12
Date Collected: 08/02/18 10:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18197	08/08/18 15:41	MO	TAL SPK

Client Sample ID: TP-17-12
Date Collected: 08/02/18 10:51
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-12
Matrix: Solid
Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.83 g	2 mL	18176	08/08/18 14:27	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18173	08/08/18 15:47	NMI	TAL SPK
Total/NA	Prep	3050B			1.25 g	50 mL	18194	08/08/18 14:27	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18230	08/09/18 12:49	JSP	TAL SPK

Client Sample ID: TP-18-12
Date Collected: 08/02/18 10:54
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-36
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18197	08/08/18 15:41	MO	TAL SPK

Client Sample ID: TP-18-12
Date Collected: 08/02/18 10:54
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-36
Matrix: Solid
Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.49 g	2 mL	18176	08/08/18 14:27	MO	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Client Sample ID: TP-18-12

Date Collected: 08/02/18 10:54
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-36

Matrix: Solid
Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1			18173	08/08/18 16:12	NMI	TAL SPK
Total/NA	Prep	3050B			1.47 g	50 mL	18194	08/08/18 14:27	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18230	08/09/18 13:03	JSP	TAL SPK

Client Sample ID: TP-12-12

Date Collected: 08/02/18 11:55
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-42

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			18197	08/08/18 15:41	MO	TAL SPK

Client Sample ID: TP-12-12

Date Collected: 08/02/18 11:55
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-42

Matrix: Solid
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	50 mL	18194	08/08/18 14:27	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18230	08/09/18 13:06	JSP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc. TestAmerica Job ID: 590-9053-2
Project/Site: Focused Phase II ESA

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-2

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010C	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/10/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH'S	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS
	TP-19-6		8/2/18	0950	SOIL	X	X		
	TP-19-12			0951		X	X		HOLD
	TP-20-6			1000		X			
	TP-20-12			1001		X			HOLD
WDM	~~TP-20-6~~								
WDM	~~TP-20-12~~								
	TP-26-6			1010		X			
	TP-21-12			1011		X			HOLD
	TP-22-6			1020		X			
	TP-22-12			1021		X			HOLD
	TP-23-6			1030		X			
	TP-23-12			1031		X			HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
RICHARD MCDONALD	TIME	JOHN HANEY	TIME
PRINT NAME	1330	PRINT NAME	1330
HART CROWSER		HC	
COMPANY		COMPANY	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/3/18
JOHN HANEY	TIME	Sheila Kraft	TIME
PRINT NAME	14:44	PRINT NAME	1445
HC		TA SDG	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER

White to Lab Yellow to Project Manager Pink to Sample Custodian 7.6 CIRCO4

Sample Custody Record

Samples Shipped to: TEST AMERICA

PAGE 2 OF 3

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/10/2018

JOB CVSD

LAB NUMBER

PROJECT NAME FOCUSED PH. II ESA

HART CROWSER CONTACT J. HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-17-6		8/2/18	1050	Soil	X	X		
	TP-17-12			1057					HOLD
	TP-15-6			1100		X			
	TP-15-12			1101					HOLD
	TP-13-6			1110		X			
	TP-13-12			1111					HOLD
	TP-11-6			1130		X			
	TP-11-12			1131					HOLD
	TP-10-6			1140		X			
	TP-10-12			1141					HOLD
	TP-16-6			~~1150~~ 1250		X			
	TP-16-12			~~1151~~ 1251					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME WARD MCDONALD	TIME	PRINT NAME JOHN HANEY	TIME
COMPANY HART CROWSER	1330	COMPANY HC	1330
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE Sheila Kral	8/2/18
PRINT NAME JOHN HANEY	TIME	PRINT NAME Sheila Kral	TIME
COMPANY HC	14:44	COMPANY TA SDG	1445

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6°C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

PAGE 3 OF 3

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/10/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT J HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-9-6		8/2/18	1150	Soil	X			
	TP-9-12			1151					HOLD
	TP-8-6			1200		X			
	TP-8-12			1201					HOLD
	TP-7-6			1210		X			
	TP-7-12			1211					HOLD
	TP-5-6			1220		X			
	TP-5-12			1221					HOLD
	TP-4-6			1230		X			
	TP-4-12			1231					HOLD
	TP-2-6			1240		X			
	TP-2-12			1241					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME WARD MCDONALD	TIME	PRINT NAME JOHN HANEY	TIME
COMPANY HART CROWSER	1330	COMPANY HC	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE JOHN HANEY	8/2/18	SIGNATURE Sheila Kraft	8/3/18
PRINT NAME HC	TIME 14:44	PRINT NAME TA SDG	TIME 1445
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☑72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6 °C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA, SPOKANE

HARTCROWSER

Hart Crowser, Inc.
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Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/10/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: JTH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-18-6	SOIL	8/2/18	10:50	S	X	X	1	
	TP-18-12			10:54		X		1	HOLD
	TP-16-6			11:11		X		1	
	TP-16-12			11:15		X		1	HOLD
	TP-14-6			11:30		X		1	
	TP-14-12			11:35				1	HOLD
	TP-12-6			11:50		X		1	
	TP-12-12			11:55				1	HOLD
	TP-6-6			12:25		X		1	
	TP-6-12			12:30				1	HOLD
	TP-3-6			12:45		X		1	
	TP-3-12			12:50				1	HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: JOHN HANEY	8/2/18	SIGNATURE: Sheila Kratz	8/2/18
PRINT NAME	TIME	PRINT NAME: Sheila Kratz	TIME
COMPANY	14:44	COMPANY: TA Spo	1445
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian T. GIROUX

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-9053-2

Login Number: 9053
List Number: 1
Creator: Kratz, Sheila J

List Source: TestAmerica Spokane

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: 590-9053-3
Client Project/Site: Focused Phase II ESA

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
8/15/2018 4:51:15 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Job ID: 590-9053-3

Laboratory: TestAmerica Spokane

Narrative

Receipt
The samples were received on 8/2/2018 2:45 PM; the samples arrived in good condition. The temperature of the cooler at receipt was 7.6º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: TP-21-6 (590-9053-5), TP-14-6 (590-9053-39), TP-12-6 (590-9053-41), TP-6-6 (590-9053-43). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

The following samples were activated for 8270D PAH analysis by the client on 08/13/18: TP-21-6 (590-9053-5), TP-14-6 (590-9053-39), TP-12-6 (590-9053-41) and TP-6-6 (590-9053-43). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010C Ag, As, Ba, Cd, Cr, Se and 7471B Mercury analysis by the client on 08/13/18: TP-19-6 (590-9053-1), TP-17-6 (590-9053-11), TP-18-6 (590-9053-35) and TP-12-6 (590-9053-41). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 590-18298 recovered above the upper control limit for Selenium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-9053-1	TP-19-6	Solid	08/02/18 09:50	08/02/18 14:45
590-9053-5	TP-21-6	Solid	08/02/18 10:10	08/02/18 14:45
590-9053-11	TP-17-6	Solid	08/02/18 10:50	08/02/18 14:45
590-9053-35	TP-18-6	Solid	08/02/18 10:50	08/02/18 14:45
590-9053-39	TP-14-6	Solid	08/02/18 11:30	08/02/18 14:45
590-9053-41	TP-12-6	Solid	08/02/18 11:50	08/02/18 14:45
590-9053-43	TP-6-6	Solid	08/02/18 12:25	08/02/18 14:45

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

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

Client Sample ID: TP-19-6

Date Collected: 08/02/18 09:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-1
Matrix: Solid

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**21**	**F1**	1.8		mg/Kg		08/13/18 15:40	08/07/18 12:07	2
Barium	**190**	**F1**	1.8		mg/Kg		08/13/18 15:40	08/07/18 12:07	2
Cadmium	ND	F1	1.5		mg/Kg		08/13/18 15:40	08/07/18 12:07	2
Chromium	**14**	**F1**	1.8		mg/Kg		08/13/18 15:40	08/07/18 12:07	2
Selenium	ND	F1	7.4		mg/Kg		08/13/18 15:40	08/07/18 12:07	2
Silver	ND	F1	1.8		mg/Kg		08/13/18 15:40	08/07/18 12:07	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**44**		40		ug/Kg		08/15/18 09:01	08/15/18 15:14	1

Client Sample ID: TP-21-6

Date Collected: 08/02/18 10:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-5
Matrix: Solid
Percent Solids: 94.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Acenaphthylene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Acenaphthene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Fluorene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Phenanthrene	**16**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Fluoranthene	**32**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Pyrene	**46**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Benzo[a]anthracene	**26**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Chrysene	**36**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Benzo[b]fluoranthene	**37**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Benzo[k]fluoranthene	**16**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Benzo[a]pyrene	**36**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Indeno[1,2,3-cd]pyrene	**22**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1
Benzo[g,h,i]perylene	**28**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*81*		*23 - 120*	*08/13/18 13:56*	*08/13/18 18:11*	*1*
2-Fluorobiphenyl (Surr)	*83*		*38 - 123*	*08/13/18 13:56*	*08/13/18 18:11*	*1*
p-Terphenyl-d14	*96*		*68 - 136*	*08/13/18 13:56*	*08/13/18 18:11*	*1*

Client Sample ID: TP-17-6

Date Collected: 08/02/18 10:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-11
Matrix: Solid

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		1.9		mg/Kg		08/13/18 15:40	08/07/18 12:54	2
Barium	**230**		1.9		mg/Kg		08/13/18 15:40	08/07/18 12:54	2
Cadmium	ND		1.5		mg/Kg		08/13/18 15:40	08/07/18 12:54	2

Client Sample ID: TP-17-6

Lab Sample ID: 590-9053-11
Date Collected: 08/02/18 10:50
Matrix: Solid
Date Received: 08/02/18 14:45

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**14**		1.9		mg/Kg		08/13/18 15:40	08/07/18 12:54	2
Selenium	ND		7.6		mg/Kg		08/13/18 15:40	08/07/18 12:54	2
Silver	ND		1.9		mg/Kg		08/13/18 15:40	08/07/18 12:54	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		46		ug/Kg		08/15/18 09:01	08/15/18 15:24	1

Client Sample ID: TP-18-6

Lab Sample ID: 590-9053-35
Date Collected: 08/02/18 10:50
Matrix: Solid
Date Received: 08/02/18 14:45

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.4**		2.0		mg/Kg		08/13/18 15:40	08/07/18 13:48	2
Barium	**160**		2.0		mg/Kg		08/13/18 15:40	08/07/18 13:48	2
Cadmium	ND		1.6		mg/Kg		08/13/18 15:40	08/07/18 13:48	2
Chromium	**11**		2.0		mg/Kg		08/13/18 15:40	08/07/18 13:48	2
Selenium	ND	^	7.9		mg/Kg		08/13/18 15:40	08/07/18 13:48	2
Silver	ND		2.0		mg/Kg		08/13/18 15:40	08/07/18 13:48	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		39		ug/Kg		08/15/18 09:01	08/15/18 15:26	1

Client Sample ID: TP-14-6

Lab Sample ID: 590-9053-39
Date Collected: 08/02/18 11:30
Matrix: Solid
Date Received: 08/02/18 14:45
Percent Solids: 94.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Acenaphthylene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Acenaphthene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Fluorene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Phenanthrene	**10**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Fluoranthene	**24**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Pyrene	**29**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Benzo[a]anthracene	**19**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Chrysene	**28**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Benzo[b]fluoranthene	**31**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Benzo[k]fluoranthene	**13**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Benzo[a]pyrene	**28**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Indeno[1,2,3-cd]pyrene	**18**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1
Benzo[g,h,i]perylene	**24**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 18:36	1

Client Sample ID: TP-14-6

Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-39
Matrix: Solid
Percent Solids: 94.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*75*		*23 - 120*	*08/13/18 13:56*	*08/13/18 18:36*	*1*
2-Fluorobiphenyl (Surr)	*77*		*38 - 123*	*08/13/18 13:56*	*08/13/18 18:36*	*1*
p-Terphenyl-d14	*90*		*68 - 136*	*08/13/18 13:56*	*08/13/18 18:36*	*1*

Client Sample ID: TP-12-6

Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-41
Matrix: Solid
Percent Solids: 96.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Acenaphthylene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Acenaphthene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Fluorene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Phenanthrene	**14**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Fluoranthene	**32**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Pyrene	**39**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Benzo[a]anthracene	**26**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Chrysene	**37**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Benzo[b]fluoranthene	**41**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Benzo[k]fluoranthene	**19**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Benzo[a]pyrene	**38**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Indeno[1,2,3-cd]pyrene	**24**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1
Benzo[g,h,i]perylene	**31**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*79*		*23 - 120*	*08/13/18 13:56*	*08/13/18 19:01*	*1*
2-Fluorobiphenyl (Surr)	*84*		*38 - 123*	*08/13/18 13:56*	*08/13/18 19:01*	*1*
p-Terphenyl-d14	*90*		*68 - 136*	*08/13/18 13:56*	*08/13/18 19:01*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**13**		1.7		mg/Kg		08/03/18 09:22	08/07/18 14:27	2
Barium	**190**		1.7		mg/Kg		08/03/18 09:22	08/07/18 14:27	2
Cadmium	ND		1.4		mg/Kg		08/03/18 09:22	08/07/18 14:27	2
Chromium	**13**		1.7		mg/Kg		08/03/18 09:22	08/07/18 14:27	2
Selenium	ND	^	6.9		mg/Kg		08/03/18 09:22	08/07/18 14:27	2
Silver	ND		1.7		mg/Kg		08/03/18 09:22	08/07/18 14:27	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		41		ug/Kg		08/15/18 09:01	08/15/18 15:28	1

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Client Sample ID: TP-6-6
Date Collected: 08/02/18 12:25
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-43
Matrix: Solid
Percent Solids: 96.6

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Acenaphthylene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Acenaphthene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Fluorene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Phenanthrene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Fluoranthene	**17**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Pyrene	**18**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Benzo[a]anthracene	**13**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Chrysene	**19**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Benzo[b]fluoranthene	**21**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Benzo[k]fluoranthene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Benzo[a]pyrene	**19**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Indeno[1,2,3-cd]pyrene	**12**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1
Benzo[g,h,i]perylene	**16**		10		ug/Kg	☼	08/13/18 13:56	08/13/18 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79*		*23 - 120*	*08/13/18 13:56*	*08/13/18 19:26*	*1*
2-Fluorobiphenyl (Surr)	*82*		*38 - 123*	*08/13/18 13:56*	*08/13/18 19:26*	*1*
p-Terphenyl-d14	*93*		*68 - 136*	*08/13/18 13:56*	*08/13/18 19:26*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-18291/1-A
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
2-Methylnaphthalene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
1-Methylnaphthalene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Acenaphthylene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Acenaphthene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Fluorene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Phenanthrene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Anthracene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Fluoranthene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Pyrene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Benzo[a]anthracene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Chrysene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Benzo[b]fluoranthene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Benzo[k]fluoranthene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Benzo[a]pyrene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Dibenz(a,h)anthracene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1
Benzo[g,h,i]perylene	ND		10		ug/Kg		08/13/18 13:56	08/13/18 16:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*99*		*23 - 120*	*08/13/18 13:56*	*08/13/18 16:07*	*1*
2-Fluorobiphenyl (Surr)	*106*		*38 - 123*	*08/13/18 13:56*	*08/13/18 16:07*	*1*
p-Terphenyl-d14	*115*		*68 - 136*	*08/13/18 13:56*	*08/13/18 16:07*	*1*

Lab Sample ID: LCS 590-18291/2-A
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18291

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	214		ug/Kg		80	41 - 121
2-Methylnaphthalene	267	219		ug/Kg		82	39 - 132
1-Methylnaphthalene	267	259		ug/Kg		97	46 - 131
Acenaphthylene	267	215		ug/Kg		81	56 - 123
Acenaphthene	267	231		ug/Kg		87	43 - 140
Fluorene	267	254		ug/Kg		95	54 - 131
Phenanthrene	267	231		ug/Kg		87	55 - 141
Anthracene	267	252		ug/Kg		95	60 - 129
Fluoranthene	267	264		ug/Kg		99	63 - 141
Pyrene	267	250		ug/Kg		94	62 - 139
Benzo[a]anthracene	267	257		ug/Kg		96	61 - 136
Chrysene	267	256		ug/Kg		96	57 - 144
Benzo[b]fluoranthene	267	264		ug/Kg		99	66 - 141
Benzo[k]fluoranthene	267	250		ug/Kg		94	63 - 150
Benzo[a]pyrene	267	255		ug/Kg		96	60 - 133
Indeno[1,2,3-cd]pyrene	267	269		ug/Kg		101	55 - 142
Dibenz(a,h)anthracene	267	269		ug/Kg		101	60 - 150
Benzo[g,h,i]perylene	267	267		ug/Kg		100	58 - 147

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-18291/2-A
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18291

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	90		23 - 120
2-Fluorobiphenyl (Surr)	92		38 - 123
p-Terphenyl-d14	97		68 - 136

Lab Sample ID: LCSD 590-18291/3-A
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18291

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			267	208		ug/Kg		78	41 - 121	3	35
2-Methylnaphthalene			267	229		ug/Kg		86	39 - 132	4	35
1-Methylnaphthalene			267	250		ug/Kg		94	46 - 131	4	35
Acenaphthylene			267	211		ug/Kg		79	56 - 123	2	35
Acenaphthene			267	209		ug/Kg		78	43 - 140	10	35
Fluorene			267	258		ug/Kg		97	54 - 131	1	35
Phenanthrene			267	214		ug/Kg		80	55 - 141	7	35
Anthracene			267	241		ug/Kg		90	60 - 129	5	35
Fluoranthene			267	240		ug/Kg		90	63 - 141	9	35
Pyrene			267	254		ug/Kg		95	62 - 139	1	35
Benzo[a]anthracene			267	244		ug/Kg		91	61 - 136	5	35
Chrysene			267	252		ug/Kg		94	57 - 144	2	35
Benzo[b]fluoranthene			267	242		ug/Kg		91	66 - 141	9	35
Benzo[k]fluoranthene			267	243		ug/Kg		91	63 - 150	3	35
Benzo[a]pyrene			267	239		ug/Kg		90	60 - 133	6	35
Indeno[1,2,3-cd]pyrene			267	248		ug/Kg		93	55 - 142	8	35
Dibenz(a,h)anthracene			267	249		ug/Kg		93	60 - 150	8	35
Benzo[g,h,i]perylene			267	257		ug/Kg		96	58 - 147	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	87		23 - 120
2-Fluorobiphenyl (Surr)	89		38 - 123
p-Terphenyl-d14	98		68 - 136

Lab Sample ID: 590-9053-5 MS
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: TP-21-6
Prep Type: Total/NA
Prep Batch: 18291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		271	199		ug/Kg	☼	74	41 - 121
2-Methylnaphthalene	ND		271	204		ug/Kg	☼	75	39 - 132
1-Methylnaphthalene	ND		271	233		ug/Kg	☼	86	46 - 131
Acenaphthylene	ND		271	188		ug/Kg	☼	70	56 - 123
Acenaphthene	ND		271	201		ug/Kg	☼	73	43 - 140
Fluorene	ND		271	223		ug/Kg	☼	82	54 - 131
Phenanthrene	16		271	224		ug/Kg	☼	77	55 - 141
Anthracene	ND		271	222		ug/Kg	☼	80	60 - 129
Fluoranthene	32		271	248		ug/Kg	☼	80	63 - 141
Pyrene	46		271	243		ug/Kg	☼	73	62 - 139

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-9053-5 MS
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: TP-21-6
Prep Type: Total/NA
Prep Batch: 18291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	26		271	250		ug/Kg	☼	83	61 - 136
Chrysene	36		271	254		ug/Kg	☼	81	57 - 144
Benzo[b]fluoranthene	37		271	258		ug/Kg	☼	82	66 - 141
Benzo[k]fluoranthene	16		271	229		ug/Kg	☼	79	63 - 150
Benzo[a]pyrene	36		271	243		ug/Kg	☼	76	60 - 133
Indeno[1,2,3-cd]pyrene	22		271	250		ug/Kg	☼	84	55 - 142
Dibenz(a,h)anthracene	ND		271	245		ug/Kg	☼	87	60 - 150
Benzo[g,h,i]perylene	28		271	258		ug/Kg	☼	85	58 - 147

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*80*		*23 - 120*
2-Fluorobiphenyl (Surr)	*78*		*38 - 123*
p-Terphenyl-d14	*85*		*68 - 136*

Lab Sample ID: 590-9053-5 MSD
Matrix: Solid
Analysis Batch: 18295

Client Sample ID: TP-21-6
Prep Type: Total/NA
Prep Batch: 18291

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		273	207		ug/Kg	☼	76	41 - 121	4	35
2-Methylnaphthalene	ND		273	219		ug/Kg	☼	80	39 - 132	7	35
1-Methylnaphthalene	ND		273	248		ug/Kg	☼	91	46 - 131	6	35
Acenaphthylene	ND		273	204		ug/Kg	☼	75	56 - 123	8	35
Acenaphthene	ND		273	213		ug/Kg	☼	77	43 - 140	6	35
Fluorene	ND		273	248		ug/Kg	☼	91	54 - 131	11	35
Phenanthrene	16		273	232		ug/Kg	☼	79	55 - 141	4	35
Anthracene	ND		273	241		ug/Kg	☼	87	60 - 129	8	35
Fluoranthene	32		273	259		ug/Kg	☼	83	63 - 141	4	35
Pyrene	46		273	257		ug/Kg	☼	78	62 - 139	6	35
Benzo[a]anthracene	26		273	260		ug/Kg	☼	86	61 - 136	4	35
Chrysene	36		273	252		ug/Kg	☼	79	57 - 144	1	35
Benzo[b]fluoranthene	37		273	254		ug/Kg	☼	80	66 - 141	2	35
Benzo[k]fluoranthene	16		273	229		ug/Kg	☼	78	63 - 150	0	35
Benzo[a]pyrene	36		273	248		ug/Kg	☼	77	60 - 133	2	35
Indeno[1,2,3-cd]pyrene	22		273	256		ug/Kg	☼	86	55 - 142	2	35
Dibenz(a,h)anthracene	ND		273	241		ug/Kg	☼	85	60 - 150	2	35
Benzo[g,h,i]perylene	28		273	258		ug/Kg	☼	85	58 - 147	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*78*		*23 - 120*
2-Fluorobiphenyl (Surr)	*86*		*38 - 123*
p-Terphenyl-d14	*86*		*68 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-18093/2-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3		mg/Kg		08/03/18 09:19	08/06/18 20:11	1
Barium	ND		1.3		mg/Kg		08/03/18 09:19	08/06/18 20:11	1
Cadmium	ND		1.0		mg/Kg		08/03/18 09:19	08/06/18 20:11	1
Chromium	ND		1.3		mg/Kg		08/03/18 09:19	08/06/18 20:11	1
Selenium	ND		5.0		mg/Kg		08/03/18 09:19	08/06/18 20:11	1
Silver	ND		1.3		mg/Kg		08/03/18 09:19	08/06/18 20:11	1

Lab Sample ID: LCS 590-18093/1-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	45.3		mg/Kg		91	80 - 120
Barium	50.0	49.9		mg/Kg		100	80 - 120
Cadmium	50.0	49.1		mg/Kg		98	80 - 120
Chromium	50.0	48.6		mg/Kg		97	80 - 120
Selenium	50.0	45.0		mg/Kg		90	80 - 120
Silver	50.0	48.7		mg/Kg		97	80 - 120

Lab Sample ID: 590-9053-1 MS
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	21	F1	47.2	47.2	F1	mg/Kg		56	75 - 125
Barium	190	F1	47.2	181	F1	mg/Kg		-9	75 - 125
Cadmium	ND	F1	47.2	33.6	F1	mg/Kg		71	75 - 125
Chromium	14	F1	47.2	45.5	F1	mg/Kg		67	75 - 125
Selenium	ND	F1	47.2	30.6	F1	mg/Kg		65	75 - 125
Silver	ND	F1	47.2	33.7	F1	mg/Kg		71	75 - 125

Lab Sample ID: 590-9053-1 MSD
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	21	F1	48.5	52.1	F1	mg/Kg		65	75 - 125	10	20
Barium	190	F1	48.5	199	F1	mg/Kg		28	75 - 125	9	20
Cadmium	ND	F1	48.5	37.3		mg/Kg		76	75 - 125	10	20
Chromium	14	F1	48.5	50.1		mg/Kg		75	75 - 125	10	20
Selenium	ND	F1	48.5	33.3	F1	mg/Kg		69	75 - 125	8	20
Silver	ND	F1	48.5	37.5		mg/Kg		77	75 - 125	11	20

Lab Sample ID: 590-9053-1 DU
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	21	F1	18.5		mg/Kg		11	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 590-9053-1 DU
Matrix: Solid
Analysis Batch: 18163

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18093

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	190	F1	183		mg/Kg		1	20
Cadmium	ND	F1	ND		mg/Kg		NC	20
Chromium	14	F1	13.7		mg/Kg		0.6	20
Selenium	ND	F1	ND		mg/Kg		NC	20
Silver	ND	F1	ND		mg/Kg		NC	20

Lab Sample ID: MB 590-18095/2-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3		mg/Kg		08/03/18 09:22	08/06/18 22:08	1
Barium	ND		1.3		mg/Kg		08/03/18 09:22	08/06/18 22:08	1
Cadmium	ND		1.0		mg/Kg		08/03/18 09:22	08/06/18 22:08	1
Chromium	ND		1.3		mg/Kg		08/03/18 09:22	08/06/18 22:08	1
Selenium	ND		5.0		mg/Kg		08/03/18 09:22	08/06/18 22:08	1
Silver	ND		1.3		mg/Kg		08/03/18 09:22	08/06/18 22:08	1

Lab Sample ID: LCS 590-18095/1-A
Matrix: Solid
Analysis Batch: 18143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	47.0		mg/Kg		94	80 - 120
Barium	50.0	49.6		mg/Kg		99	80 - 120
Cadmium	50.0	51.6		mg/Kg		103	80 - 120
Chromium	50.0	49.5		mg/Kg		99	80 - 120
Selenium	50.0	46.7		mg/Kg		93	80 - 120
Silver	50.0	48.8		mg/Kg		98	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-18332/9-A
Matrix: Solid
Analysis Batch: 18347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50		ug/Kg		08/15/18 09:01	08/15/18 15:12	1

Lab Sample ID: LCS 590-18332/8-A
Matrix: Solid
Analysis Batch: 18347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	200	179		ug/Kg		90	80 - 120

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-9053-1 MS
Matrix: Solid
Analysis Batch: 18347

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	44		192	213		ug/Kg		88	80 - 120

Lab Sample ID: 590-9053-1 MSD
Matrix: Solid
Analysis Batch: 18347

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18332

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	44		196	207		ug/Kg		83	80 - 120	3	20

Lab Sample ID: 590-9053-1 DU
Matrix: Solid
Analysis Batch: 18347

Client Sample ID: TP-19-6
Prep Type: Total/NA
Prep Batch: 18332

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	44		40.2		ug/Kg		10	20

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Client Sample ID: TP-19-6
Date Collected: 08/02/18 09:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		2			18298	08/07/18 12:07	JSP	TAL SPK
Total/NA	Prep	3050B			1.36 g	50 mL	18093	08/13/18 15:40	JSP	TAL SPK
Total/NA	Prep	7471B			0.62 g	50 mL	18332	08/15/18 09:01	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18347	08/15/18 15:14	JSP	TAL SPK

Client Sample ID: TP-21-6
Date Collected: 08/02/18 10:10
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-5
Matrix: Solid
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.24 g	2 mL	18291	08/13/18 13:56	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18295	08/13/18 18:11	NMI	TAL SPK

Client Sample ID: TP-17-6
Date Collected: 08/02/18 10:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		2			18298	08/07/18 12:54	JSP	TAL SPK
Total/NA	Prep	3050B			1.32 g	50 mL	18093	08/13/18 15:40	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	18332	08/15/18 09:01	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18347	08/15/18 15:24	JSP	TAL SPK

Client Sample ID: TP-18-6
Date Collected: 08/02/18 10:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-35
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		2			18298	08/07/18 13:48	JSP	TAL SPK
Total/NA	Prep	3050B			1.26 g	50 mL	18093	08/13/18 15:40	JSP	TAL SPK
Total/NA	Prep	7471B			0.64 g	50 mL	18332	08/15/18 09:01	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18347	08/15/18 15:26	JSP	TAL SPK

Client Sample ID: TP-14-6
Date Collected: 08/02/18 11:30
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-39
Matrix: Solid
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.53 g	2 mL	18291	08/13/18 13:56	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18295	08/13/18 18:36	NMI	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Client Sample ID: TP-12-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-41
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.44 g	50 mL	18095	08/03/18 09:22	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18298	08/07/18 14:27	JSP	TAL SPK
Total/NA	Prep	7471B			0.61 g	50 mL	18332	08/15/18 09:01	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18347	08/15/18 15:28	JSP	TAL SPK

Client Sample ID: TP-12-6
Date Collected: 08/02/18 11:50
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-41
Matrix: Solid
Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.28 g	2 mL	18291	08/13/18 13:56	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18295	08/13/18 19:01	NMI	TAL SPK

Client Sample ID: TP-6-6
Date Collected: 08/02/18 12:25
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-43
Matrix: Solid
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.14 g	2 mL	18291	08/13/18 13:56	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18295	08/13/18 19:26	NMI	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc. TestAmerica Job ID: 590-9053-3
Project/Site: Focused Phase II ESA

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-19

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-3

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010C	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/15/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH'S	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS
	TP-19-6		8/2/18	0950	SOIL	X	X		
	TP-19-12			0951		X	X		HOLD
	TP-20-6			1000		X			
	TP-20-12			1001		X			HOLD
WDM	~~TP-20-6~~								
WDM	~~TP-20-12~~								
	TP-26-6			1010		X			
	TP-21-12			1011		X			HOLD
	TP-22-6			1020		X			
	TP-22-12			1021		X			HOLD
	TP-23-6			1030		X			
	TP-23-12			1031		X			HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
RICHARD MCDONALD	TIME	JOHN HANEY	TIME
PRINT NAME	1330	PRINT NAME	1330
HART CROWSER		HC	
COMPANY		COMPANY	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/3/18
JOHN HANEY	TIME	Sheila Kraft	TIME
PRINT NAME	14:44	PRINT NAME	1445
HC		TA SDG	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER

White to Lab Yellow to Project Manager Pink to Sample Custodian 7.6 CIRCO4

Sample Custody Record

Samples Shipped to: TEST AMERICA

PAGE 2 OF 3

HART CROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/15/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PH. II ESA

HART CROWSER CONTACT J. HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-17-6		8/2/18	1050	Soil	X	X		
	TP-17-12			1057					HOLD
	TP-15-6			1100		X			
	TP-15-12			1101					HOLD
	TP-13-6			1110		X			
	TP-13-12			1111					HOLD
	TP-11-6			1130		X			
	TP-11-12			1131					HOLD
	TP-10-6			1140		X			
	TP-10-12			1141					HOLD
	TP-16-6			~~1150~~ 1250		X			
	TP-16-12			~~1151~~ 1251					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: WARD MCDONALD	TIME	PRINT NAME: JOHN HANEY	TIME
COMPANY: HART CROWSER	1330	COMPANY: HC	1330
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: JOHN HANEY	TIME	PRINT NAME: Sheila Kidd	TIME
COMPANY: HC	14:44	COMPANY: TA SDG	1445

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6°C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

PAGE 3 OF 3

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/15/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT J HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-9-6		8/2/18	1150	Soil	X			
	TP-9-12			1151					HOLD
	TP-8-6			1200		X			
	TP-8-12			1201					HOLD
	TP-7-6			1210		X			
	TP-7-12			1211					HOLD
	TP-5-6			1220		X			
	TP-5-12			1221					HOLD
	TP-4-6			1230		X			
	TP-4-12			1231					HOLD
	TP-2-6			1240		X			
	TP-2-12			1241					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME WARD MCDONALD	TIME	PRINT NAME JOHN HANEY	TIME
COMPANY HART CROWSER	1330	COMPANY HC	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE JOHN HANEY	8/2/18	SIGNATURE Sheila Kraft	8/3/18
PRINT NAME HC	TIME 14:44	PRINT NAME TA SDG	TIME 1445
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☑72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6 °C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA, SPOKANE

HART CROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/15/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: JTH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-18-6	SOIL	8/2/18	10:50	S	X	X	1	
	TP-18-12			10:54		X		1	HOLD
	TP-16-6			11:11		X		1	
	TP-16-12			11:15		X		1	HOLD
	TP-14-6			11:30		X		1	
	TP-14-12			11:35				1	HOLD
	TP-12-6			11:50		X		1	
	TP-12-12			11:55				1	HOLD
	TP-6-6			12:25		X		1	
	TP-6-12			12:30				1	HOLD
	TP-3-6			12:45		X		1	
	TP-3-12			12:50				1	HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: JOHN HANEY	8/2/18	SIGNATURE: Sheila Kratz	8/2/18
PRINT NAME	TIME	PRINT NAME: Sheila Kratz	TIME
COMPANY	14:44	COMPANY: TA Spo	1445
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian T. GIROUX

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-9053-3

Login Number: 9053
List Number: 1
Creator: Kratz, Sheila J

List Source: TestAmerica Spokane

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: 590-9053-4
Client Project/Site: Focused Phase II ESA

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
8/17/2018 2:26:50 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Job ID: 590-9053-4

Laboratory: TestAmerica Spokane

Narrative

Receipt
The samples were received on 8/2/2018 2:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.6º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: TP-20-6 (590-9053-3), TP-15-6 (590-9053-13) and TP-16-6 (590-9053-37). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

The following samples were activated for 6010C Ag, As, Ba, Cd, Cr, Se, 7471B Mercury and 8270D SIM PAH analysis by the client on 08/15/18: TP-20-6 (590-9053-3), TP-15-6 (590-9053-13) and TP-16-6 (590-9053-37). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS Semi VOA
Method 8270D SIM: Due to the high concentration of Benzo[a]pyrene, the matrix spike (MS) for preparation batch 590-18350 and analytical batch 590-18357 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 8270D SIM: Surrogate recovery for the following sample was outside control limits: TP-15-6 (590-9053-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 590-18384 recovered above the upper control limit for Selenium. The samples associated with this CCV were either >10x or non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-9053-3	TP-20-6	Solid	08/02/18 10:00	08/02/18 14:45
590-9053-13	TP-15-6	Solid	08/02/18 11:00	08/02/18 14:45
590-9053-37	TP-16-6	Solid	08/02/18 11:11	08/02/18 14:45

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

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

Client Sample ID: TP-20-6

Date Collected: 08/02/18 10:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-3

Matrix: Solid
Percent Solids: 94.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Acenaphthylene	ND		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Acenaphthene	**12**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Fluorene	ND		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Phenanthrene	**68**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Anthracene	**16**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Fluoranthene	**180**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Pyrene	**200**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Benzo[a]anthracene	**130**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Chrysene	**180**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Benzo[b]fluoranthene	**220**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Benzo[k]fluoranthene	**93**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Benzo[a]pyrene	**210**	**F1**	10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Indeno[1,2,3-cd]pyrene	**120**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Dibenz(a,h)anthracene	**41**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1
Benzo[g,h,i]perylene	**150**		10		ug/Kg	☼	08/16/18 08:52	08/16/18 13:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*77*		*23 - 120*	*08/16/18 08:52*	*08/16/18 13:36*	*1*
2-Fluorobiphenyl (Surr)	*78*		*38 - 123*	*08/16/18 08:52*	*08/16/18 13:36*	*1*
p-Terphenyl-d14	*87*		*68 - 136*	*08/16/18 08:52*	*08/16/18 13:36*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.9**		2.1		mg/Kg		08/16/18 09:08	08/17/18 10:50	2
Barium	**160**	**F1**	2.1		mg/Kg		08/16/18 09:08	08/17/18 10:50	2
Cadmium	ND		1.7		mg/Kg		08/16/18 09:08	08/17/18 10:50	2
Chromium	**13**		2.1		mg/Kg		08/16/18 09:08	08/17/18 10:50	2
Selenium	ND	^	8.5		mg/Kg		08/16/18 09:08	08/17/18 10:50	2
Silver	ND		2.1		mg/Kg		08/16/18 09:08	08/17/18 10:50	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		42		ug/Kg		08/16/18 09:27	08/17/18 11:08	1

Client Sample ID: TP-15-6

Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13

Matrix: Solid
Percent Solids: 95.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Acenaphthylene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Acenaphthene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Fluorene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Phenanthrene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1

Client Sample ID: TP-15-6

Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13

Matrix: Solid
Percent Solids: 95.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Fluoranthene	**12**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Pyrene	**12**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Benzo[a]anthracene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Chrysene	**12**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Benzo[b]fluoranthene	**17**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Benzo[k]fluoranthene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Benzo[a]pyrene	**14**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1
Benzo[g,h,i]perylene	**11**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*39*		*23 - 120*	*08/16/18 08:53*	*08/16/18 14:01*	*1*
2-Fluorobiphenyl (Surr)	*41*		*38 - 123*	*08/16/18 08:53*	*08/16/18 14:01*	*1*
p-Terphenyl-d14	*49*	*X*	*68 - 136*	*08/16/18 08:53*	*08/16/18 14:01*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.8**		2.3		mg/Kg		08/16/18 09:08	08/17/18 11:21	2
Barium	**140**		2.3		mg/Kg		08/16/18 09:08	08/17/18 11:21	2
Cadmium	ND		1.8		mg/Kg		08/16/18 09:08	08/17/18 11:21	2
Chromium	**14**		2.3		mg/Kg		08/16/18 09:08	08/17/18 11:21	2
Selenium	ND	^	9.0		mg/Kg		08/16/18 09:08	08/17/18 11:21	2
Silver	ND		2.3		mg/Kg		08/16/18 09:08	08/17/18 11:21	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		41		ug/Kg		08/16/18 09:27	08/17/18 11:17	1

Client Sample ID: TP-16-6

Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37

Matrix: Solid
Percent Solids: 95.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
2-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
1-Methylnaphthalene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Acenaphthylene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Acenaphthene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Fluorene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Phenanthrene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Anthracene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Fluoranthene	**25**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Pyrene	**29**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Benzo[a]anthracene	**20**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Chrysene	**28**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Benzo[b]fluoranthene	**36**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Benzo[k]fluoranthene	**14**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1

Client Sample ID: TP-16-6
Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37
Matrix: Solid
Percent Solids: 95.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	**29**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Indeno[1,2,3-cd]pyrene	**19**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Dibenz(a,h)anthracene	ND		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1
Benzo[g,h,i]perylene	**24**		10		ug/Kg	☼	08/16/18 08:53	08/16/18 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*81*		*23 - 120*	*08/16/18 08:53*	*08/16/18 14:26*	*1*
2-Fluorobiphenyl (Surr)	*82*		*38 - 123*	*08/16/18 08:53*	*08/16/18 14:26*	*1*
p-Terphenyl-d14	*94*		*68 - 136*	*08/16/18 08:53*	*08/16/18 14:26*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.9**		1.8		mg/Kg		08/16/18 09:08	08/17/18 11:25	2
Barium	**170**		1.8		mg/Kg		08/16/18 09:08	08/17/18 11:25	2
Cadmium	ND		1.4		mg/Kg		08/16/18 09:08	08/17/18 11:25	2
Chromium	**11**		1.8		mg/Kg		08/16/18 09:08	08/17/18 11:25	2
Selenium	ND	^	7.1		mg/Kg		08/16/18 09:08	08/17/18 11:25	2
Silver	ND		1.8		mg/Kg		08/16/18 09:08	08/17/18 11:25	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		40		ug/Kg		08/16/18 09:27	08/17/18 11:19	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-18350/1-A
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
2-Methylnaphthalene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
1-Methylnaphthalene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Acenaphthylene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Acenaphthene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Fluorene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Phenanthrene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Anthracene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Fluoranthene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Pyrene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Benzo[a]anthracene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Chrysene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Benzo[b]fluoranthene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Benzo[k]fluoranthene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Benzo[a]pyrene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Dibenz(a,h)anthracene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1
Benzo[g,h,i]perylene	ND		10		ug/Kg		08/16/18 08:52	08/16/18 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*77*		*23 - 120*	*08/16/18 08:52*	*08/16/18 11:31*	*1*
2-Fluorobiphenyl (Surr)	*83*		*38 - 123*	*08/16/18 08:52*	*08/16/18 11:31*	*1*
p-Terphenyl-d14	*103*		*68 - 136*	*08/16/18 08:52*	*08/16/18 11:31*	*1*

Lab Sample ID: LCS 590-18350/2-A
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	167		ug/Kg		63	41 - 121
2-Methylnaphthalene	267	192		ug/Kg		72	39 - 132
1-Methylnaphthalene	267	201		ug/Kg		75	46 - 131
Acenaphthylene	267	170		ug/Kg		64	56 - 123
Acenaphthene	267	181		ug/Kg		68	43 - 140
Fluorene	267	221		ug/Kg		83	54 - 131
Phenanthrene	267	205		ug/Kg		77	55 - 141
Anthracene	267	215		ug/Kg		81	60 - 129
Fluoranthene	267	223		ug/Kg		84	63 - 141
Pyrene	267	212		ug/Kg		79	62 - 139
Benzo[a]anthracene	267	229		ug/Kg		86	61 - 136
Chrysene	267	227		ug/Kg		85	57 - 144
Benzo[b]fluoranthene	267	227		ug/Kg		85	66 - 141
Benzo[k]fluoranthene	267	239		ug/Kg		90	63 - 150
Benzo[a]pyrene	267	236		ug/Kg		88	60 - 133
Indeno[1,2,3-cd]pyrene	267	239		ug/Kg		90	55 - 142
Dibenz(a,h)anthracene	267	240		ug/Kg		90	60 - 150
Benzo[g,h,i]perylene	267	233		ug/Kg		88	58 - 147

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-18350/2-A
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18350

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*76*		*23 - 120*
2-Fluorobiphenyl (Surr)	*79*		*38 - 123*
p-Terphenyl-d14	*93*		*68 - 136*

Lab Sample ID: LCSD 590-18350/3-A
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18350

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			267	181		ug/Kg		68	41 - 121	8	35
2-Methylnaphthalene			267	193		ug/Kg		73	39 - 132	1	35
1-Methylnaphthalene			267	212		ug/Kg		80	46 - 131	6	35
Acenaphthylene			267	177		ug/Kg		66	56 - 123	4	35
Acenaphthene			267	197		ug/Kg		74	43 - 140	8	35
Fluorene			267	224		ug/Kg		84	54 - 131	1	35
Phenanthrene			267	216		ug/Kg		81	55 - 141	5	35
Anthracene			267	238		ug/Kg		89	60 - 129	10	35
Fluoranthene			267	242		ug/Kg		91	63 - 141	8	35
Pyrene			267	229		ug/Kg		86	62 - 139	8	35
Benzo[a]anthracene			267	234		ug/Kg		88	61 - 136	2	35
Chrysene			267	237		ug/Kg		89	57 - 144	5	35
Benzo[b]fluoranthene			267	245		ug/Kg		92	66 - 141	8	35
Benzo[k]fluoranthene			267	255		ug/Kg		96	63 - 150	7	35
Benzo[a]pyrene			267	245		ug/Kg		92	60 - 133	4	35
Indeno[1,2,3-cd]pyrene			267	244		ug/Kg		92	55 - 142	2	35
Dibenz(a,h)anthracene			267	248		ug/Kg		93	60 - 150	3	35
Benzo[g,h,i]perylene			267	243		ug/Kg		91	58 - 147	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*73*		*23 - 120*
2-Fluorobiphenyl (Surr)	*79*		*38 - 123*
p-Terphenyl-d14	*88*		*68 - 136*

Lab Sample ID: 590-9053-3 MS
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		281	187		ug/Kg	☼	66	41 - 121
2-Methylnaphthalene	ND		281	217		ug/Kg	☼	77	39 - 132
1-Methylnaphthalene	ND		281	235		ug/Kg	☼	83	46 - 131
Acenaphthylene	ND		281	186		ug/Kg	☼	66	56 - 123
Acenaphthene	12		281	219		ug/Kg	☼	74	43 - 140
Fluorene	ND		281	236		ug/Kg	☼	83	54 - 131
Phenanthrene	68		281	335		ug/Kg	☼	95	55 - 141
Anthracene	16		281	264		ug/Kg	☼	88	60 - 129
Fluoranthene	180		281	530		ug/Kg	☼	126	63 - 141
Pyrene	200		281	589		ug/Kg	☼	138	62 - 139

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-9053-3 MS
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	130		281	462		ug/Kg	☼	119	61 - 136
Chrysene	180		281	554		ug/Kg	☼	134	57 - 144
Benzo[b]fluoranthene	220		281	573		ug/Kg	☼	125	66 - 141
Benzo[k]fluoranthene	93		281	410		ug/Kg	☼	113	63 - 150
Benzo[a]pyrene	210	F1	281	583	F1	ug/Kg	☼	134	60 - 133
Indeno[1,2,3-cd]pyrene	120		281	469		ug/Kg	☼	123	55 - 142
Dibenz(a,h)anthracene	41		281	328		ug/Kg	☼	102	60 - 150
Benzo[g,h,i]perylene	150		281	502		ug/Kg	☼	124	58 - 147

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*76*		*23 - 120*
2-Fluorobiphenyl (Surr)	*80*		*38 - 123*
p-Terphenyl-d14	*92*		*68 - 136*

Lab Sample ID: 590-9053-3 MSD
Matrix: Solid
Analysis Batch: 18357

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18350

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		276	202		ug/Kg	☼	72	41 - 121	8	35
2-Methylnaphthalene	ND		276	216		ug/Kg	☼	78	39 - 132	0	35
1-Methylnaphthalene	ND		276	238		ug/Kg	☼	85	46 - 131	1	35
Acenaphthylene	ND		276	184		ug/Kg	☼	67	56 - 123	1	35
Acenaphthene	12		276	208		ug/Kg	☼	71	43 - 140	5	35
Fluorene	ND		276	245		ug/Kg	☼	87	54 - 131	4	35
Phenanthrene	68		276	314		ug/Kg	☼	89	55 - 141	7	35
Anthracene	16		276	280		ug/Kg	☼	96	60 - 129	6	35
Fluoranthene	180		276	467		ug/Kg	☼	106	63 - 141	13	35
Pyrene	200		276	506		ug/Kg	☼	110	62 - 139	15	35
Benzo[a]anthracene	130		276	423		ug/Kg	☼	107	61 - 136	9	35
Chrysene	180		276	461		ug/Kg	☼	102	57 - 144	18	35
Benzo[b]fluoranthene	220		276	485		ug/Kg	☼	95	66 - 141	17	35
Benzo[k]fluoranthene	93		276	371		ug/Kg	☼	101	63 - 150	10	35
Benzo[a]pyrene	210	F1	276	502		ug/Kg	☼	107	60 - 133	15	35
Indeno[1,2,3-cd]pyrene	120		276	407		ug/Kg	☼	103	55 - 142	14	35
Dibenz(a,h)anthracene	41		276	295		ug/Kg	☼	92	60 - 150	11	35
Benzo[g,h,i]perylene	150		276	438		ug/Kg	☼	104	58 - 147	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*84*		*23 - 120*
2-Fluorobiphenyl (Surr)	*80*		*38 - 123*
p-Terphenyl-d14	*94*		*68 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-18351/5-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18351

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3		mg/Kg		08/16/18 09:08	08/17/18 10:46	1
Barium	ND		1.3		mg/Kg		08/16/18 09:08	08/17/18 10:46	1
Cadmium	ND		1.0		mg/Kg		08/16/18 09:08	08/17/18 10:46	1
Chromium	ND		1.3		mg/Kg		08/16/18 09:08	08/17/18 10:46	1
Selenium	ND	^	5.0		mg/Kg		08/16/18 09:08	08/17/18 10:46	1
Silver	ND		1.3		mg/Kg		08/16/18 09:08	08/17/18 10:46	1

Lab Sample ID: LCS 590-18351/1-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	50.1		mg/Kg		100	80 - 120
Barium	50.0	52.0		mg/Kg		104	80 - 120
Cadmium	50.0	50.1		mg/Kg		100	80 - 120
Chromium	50.0	51.0		mg/Kg		102	80 - 120
Selenium	50.0	49.3	^	mg/Kg		99	80 - 120
Silver	50.0	50.3		mg/Kg		101	80 - 120

Lab Sample ID: LCS 590-18351/2-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.8		mg/Kg		100	80 - 120
Barium	50.0	51.9		mg/Kg		104	80 - 120
Cadmium	50.0	49.9		mg/Kg		100	80 - 120
Chromium	50.0	50.5		mg/Kg		101	80 - 120
Selenium	50.0	48.4	^	mg/Kg		97	80 - 120
Silver	50.0	50.3		mg/Kg		101	80 - 120

Lab Sample ID: LCS 590-18351/3-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.4		mg/Kg		99	80 - 120
Barium	50.0	52.3		mg/Kg		105	80 - 120
Cadmium	50.0	50.2		mg/Kg		100	80 - 120
Chromium	50.0	50.2		mg/Kg		100	80 - 120
Selenium	50.0	48.4	^	mg/Kg		97	80 - 120
Silver	50.0	50.7		mg/Kg		101	80 - 120

Lab Sample ID: LCS 590-18351/4-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.7		mg/Kg		99	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 590-18351/4-A
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	50.0	52.6		mg/Kg		105	80 - 120
Cadmium	50.0	50.5		mg/Kg		101	80 - 120
Chromium	50.0	51.3		mg/Kg		103	80 - 120
Selenium	50.0	49.1	^	mg/Kg		98	80 - 120
Silver	50.0	51.0		mg/Kg		102	80 - 120

Lab Sample ID: 590-9053-3 MS
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	9.9		49.0	54.2		mg/Kg		90	75 - 125
Barium	160	F1	49.0	210		mg/Kg		100	75 - 125
Cadmium	ND		49.0	45.8		mg/Kg		93	75 - 125
Chromium	13		49.0	59.3		mg/Kg		95	75 - 125
Selenium	ND	^	49.0	42.4	^	mg/Kg		86	75 - 125
Silver	ND		49.0	46.8		mg/Kg		95	75 - 125

Lab Sample ID: 590-9053-3 MSD
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	9.9		48.1	56.5		mg/Kg		97	75 - 125	4	20
Barium	160	F1	48.1	231	F1	mg/Kg		145	75 - 125	9	20
Cadmium	ND		48.1	45.5		mg/Kg		95	75 - 125	1	20
Chromium	13		48.1	61.1		mg/Kg		101	75 - 125	3	20
Selenium	ND	^	48.1	40.9	^	mg/Kg		85	75 - 125	4	20
Silver	ND		48.1	46.1		mg/Kg		96	75 - 125	1	20

Lab Sample ID: 590-9053-3 DU
Matrix: Solid
Analysis Batch: 18384

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18351

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	9.9		10.1		mg/Kg		1	20
Barium	160	F1	175		mg/Kg		8	20
Cadmium	ND		ND		mg/Kg		NC	20
Chromium	13		13.5		mg/Kg		7	20
Selenium	ND	^	ND		mg/Kg		NC	20
Silver	ND		ND		mg/Kg		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-18355/9-A
Matrix: Solid
Analysis Batch: 18383

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50		ug/Kg		08/16/18 09:27	08/17/18 11:06	1

Lab Sample ID: LCS 590-18355/8-A
Matrix: Solid
Analysis Batch: 18383

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18355

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			200	208		ug/Kg		104	80 - 120		

Lab Sample ID: 590-9053-3 MS
Matrix: Solid
Analysis Batch: 18383

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18355

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		200	235		ug/Kg		106	80 - 120		

Lab Sample ID: 590-9053-3 MSD
Matrix: Solid
Analysis Batch: 18383

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18355

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		200	234		ug/Kg		105	80 - 120	0	20

Lab Sample ID: 590-9053-3 DU
Matrix: Solid
Analysis Batch: 18383

Client Sample ID: TP-20-6
Prep Type: Total/NA
Prep Batch: 18355

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	ND		ND		ug/Kg				NC	20

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Client Sample ID: TP-20-6
Date Collected: 08/02/18 10:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	50 mL	18351	08/16/18 09:08	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18384	08/17/18 10:50	JSP	TAL SPK
Total/NA	Prep	7471B			0.59 g	50 mL	18355	08/16/18 09:27	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18383	08/17/18 11:08	JSP	TAL SPK

Client Sample ID: TP-20-6
Date Collected: 08/02/18 10:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-3
Matrix: Solid
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.55 g	2 mL	18350	08/16/18 08:52	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18357	08/16/18 13:36	NMI	TAL SPK

Client Sample ID: TP-15-6
Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.11 g	50 mL	18351	08/16/18 09:08	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18384	08/17/18 11:21	JSP	TAL SPK
Total/NA	Prep	7471B			0.61 g	50 mL	18355	08/16/18 09:27	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18383	08/17/18 11:17	JSP	TAL SPK

Client Sample ID: TP-15-6
Date Collected: 08/02/18 11:00
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-13
Matrix: Solid
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.21 g	2 mL	18350	08/16/18 08:53	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18357	08/16/18 14:01	NMI	TAL SPK

Client Sample ID: TP-16-6
Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.41 g	50 mL	18351	08/16/18 09:08	JSP	TAL SPK
Total/NA	Analysis	6010C		2			18384	08/17/18 11:25	JSP	TAL SPK
Total/NA	Prep	7471B			0.62 g	50 mL	18355	08/16/18 09:27	JSP	TAL SPK
Total/NA	Analysis	7471B		1			18383	08/17/18 11:19	JSP	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Client Sample ID: TP-16-6
Date Collected: 08/02/18 11:11
Date Received: 08/02/18 14:45

Lab Sample ID: 590-9053-37
Matrix: Solid
Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.75 g	2 mL	18350	08/16/18 08:53	MO	TAL SPK
Total/NA	Analysis	8270D SIM		1			18357	08/16/18 14:26	NMI	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc. TestAmerica Job ID: 590-9053-4
Project/Site: Focused Phase II ESA

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-19

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Focused Phase II ESA

TestAmerica Job ID: 590-9053-4

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010C	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/17/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH'S	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS
	TP-19-6		8/2/18	0950	SOIL	X	X		
	TP-19-12			0951		X	X		HOLD
	TP-20-6			1000		X			
	TP-20-12			1001		X			HOLD
WDM	~~TP-20-6~~								
WDM	~~TP-20-12~~								
	TP-26-6			1010		X			
	TP-21-12			1011		X			HOLD
	TP-22-6			1020		X			
	TP-22-12			1021		X			HOLD
	TP-23-6			1030		X			
	TP-23-12			1031		X			HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: RICHARD MCDONALD	TIME	PRINT NAME: JOHN HANEY	TIME
COMPANY: HART CROWSER	1330	COMPANY: HC	1330
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/3/18
PRINT NAME: JOHN HANEY	TIME	PRINT NAME: SHEILA KRAFT	TIME
COMPANY: HC	14:44	COMPANY: TA SEA	1445

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER

White to Lab Yellow to Project Manager Pink to Sample Custodian 7.6 CIRCO4

590-9053 Chain of Custody

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc
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Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/7/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PH. II ESA

HART CROWSER CONTACT J. HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-17-6		8/2/18	1050	Soil	X	X		
	TP-17-12			1057					HOLD
	TP-15-6			1100		X			
	TP-15-12			1101					HOLD
	TP-13-6			1110		X			
	TP-13-12			1111					HOLD
	TP-11-6			1130		X			
	TP-11-12			1131					HOLD
	TP-10-6			1140		X			
	TP-10-12			1141					HOLD
	TP-16-6			~~1150~~ 1250		X			
	TP-16-12			~~1151~~ 1251					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: WARD MCDONALD	TIME	PRINT NAME: JOHN HANEY	TIME
COMPANY: HART CROWSER	1330	COMPANY: HC	1330
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME: JOHN HANEY	TIME	PRINT NAME: Sheila Kidd	TIME
COMPANY: HC	14:44	COMPANY: TA SDG	1445

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6°C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

PAGE 3 OF 3

Hart Crowser, Inc
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8/17/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT J HANEY

SAMPLED BY: W. MCDONALD

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAHS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-9-6		8/2/18	1150	Soil	X			
	TP-9-12			1151					HOLD
	TP-8-6			1200		X			
	TP-8-12			1201					HOLD
	TP-7-6			1210		X			
	TP-7-12			1211					HOLD
	TP-5-6			1220		X			
	TP-5-12			1221					HOLD
	TP-4-6			1230		X			
	TP-4-12			1231					HOLD
	TP-2-6			1240		X			
	TP-2-12			1241					HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/2/18	SIGNATURE	8/2/18
PRINT NAME WARD MCDONALD	TIME	PRINT NAME JOHN HANEY	TIME
COMPANY HART CROWSER	1330	COMPANY HC	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE JOHN HANEY	8/2/18	SIGNATURE Sheila Kratz	8/3/18
PRINT NAME HC	TIME 14:44	PRINT NAME TA SDG	TIME 1445
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☑72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian

7.6 °C IR004

Sample Custody Record

Samples Shipped to: TEST AMERICA, SPOKANE

HART CROWSER

Hart Crowser, Inc
3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Office: 206.324.9530 • Fax 206.328.5581

8/17/2018

JOB CVSD LAB NUMBER

PROJECT NAME FOCUSED PHASE II ESA

HART CROWSER CONTACT JOHN HANEY

SAMPLED BY: JTH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: LEAD (TOTAL)	REQUESTED ANALYSIS: PAH	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	TP-18-6	SOIL	8/2/18	10:50	S	X	X	1	
	TP-18-12			10:54				1	HOLD
	TP-16-6			11:11		X		1	
	TP-16-12			11:15				1	HOLD
	TP-14-6			11:30		X		1	
	TP-14-12			11:35				1	HOLD
	TP-12-6			11:50		X		1	
	TP-12-12			11:55				1	HOLD
	TP-6-6			12:25		X		1	
	TP-6-12			12:30				1	HOLD
	TP-3-6			12:45		X		1	
	TP-3-12			12:50				1	HOLD

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: JOHN HANEY	8/2/18	SIGNATURE: Sheila Ford	8/2/18
PRINT NAME	TIME	PRINT NAME: Sheila Ford	TIME
COMPANY	14:44	COMPANY: TA SPO	1445
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☐STANDARD
☒72 HOURS OTHER _____

White to Lab Yellow to Project Manager Pink to Sample Custodian T. GIROUX

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-9053-4

Login Number: 9053
List Number: 1
Creator: Kratz, Sheila J

List Source: TestAmerica Spokane

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