October 25, 2016
File: 190500919

Attention: Mr. Steven M. DiMarzo
Mark IV Enterprises
301 Exchange Boulevard
Rochester, New York 14608

Reference: Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, New York

Dear Steve,

This report summarizes the results of our Phase II Environmental Site Assessment (Phase II ESA) of a vacant parcel located north of Karges Place and Uhlen Place in the City of Rochester, New York (herein referred to as the "Site"; see Figure 1).

PROJECT BACKGROUND AND OBJECTIVES

The Site is a 2± acre vacant parcel, located north of Karges Place and Uhlen Place and south of Interstate 490. The Site was most recently used by the NYSDOT for occasional contractor storage. Historically, the Site was used for industrial and commercial purposes. It is understood that Mark IV Enterprises (Mark IV) purchased the Site at auction. Based on the Recognized Environmental Conditions (RECs) identified by Stantec during a Phase I ESA conducted in December 2012, Mark IV requested a Phase II ESA be completed.

Stantec's approach to the Phase II ESA was designed to investigate whether there are indications of surface or subsurface contamination related to the RECs identified in the Phase I ESA. The proposed investigation involved a series of test pits, surface soil samples, soil borings, and groundwater monitoring wells. During the investigation some of the proposed soil borings were replaced with test pits. The investigation was not designed to delineate the nature and extent of contamination that may be present.

RECS AND PHASE II ESA SAMPLING LOCATIONS

The RECs identified in the December 2012 Phase I ESA and the Phase II ESA sampling locations which addressed each one are listed below. Sample locations are numbered as shown on Figure 1. Given the history of the Site and the overlapping nature of many of the RECs, several of the sample locations addressed conditions related to more than one REC.

Reference: **Phase II Environmental Site Assessment**
Karges & Uhlen Place, Rochester, New York

Geophysical survey anomalies – A geophysical survey was performed on November 11, 2012. Several anomalies (A-G) were detected which indicated the probability of buried metals which may be related to features of environmental significance associated with the former building and its demolition. Test pits TP-A through TP-G were proposed to investigate the geophysical anomalies; the test pits were completed at their proposed locations.

Former Oil Storage Tank – The City of Rochester provided a map dated August 11, 1967 and updated September 21, 1967 which depicted a 6,000-gallon #2 oil tank south of the boiler room in the former building at the Site. No other information was available regarding the tank. A geophysical anomaly G was identified in the general vicinity of the mapped location of the 6,000 gallon tank. The test pit G completed for the geophysical anomaly served to simultaneously investigate the former tank location.

Historical Site Uses – The Site was listed in city directories as Sherwood Shoe Co, shoe manufacturers, at 625 South Goodman Street from 1905 through 1936. Beginning in 1942, multiple tenants were listed at 625 South Goodman Street. Between 1942 and 1967, the building was occupied by several industrial and commercial tenants, including but not limited to laundries, plastic products, laboratory supplies, tool manufacturing, gear manufacturing, machine shops, upholsterers, photography, printing, lamps and lampshade manufacturing, electrical sales, electrical testing of instruments, and paint sales. In 1967, The Sherwood Building was listed as vacant, and no listings were presented in the following years.

The 1912 Sanborn map showed the Sherwood Shoe Co. shoe factory along the northern portion of the Site. An oil and dye house was indicated on the northern side of the factory building. A portion of the German American Lumber Co. lumber shed and a storage building were on the property along the west side.

- Test pit TP-A was completed to investigate the former oil and dye house/chemical storage area of the Sherwood Building and geophysical anomaly A, since the geophysical anomaly appeared to coincide with this prior reported use;

- Test pit TP-L (proposed boring B-2) was completed at the location of the former German American Lumber Co. building; and

- Test pit TP-M (proposed boring B-3) was completed within the footprint of a former storage building.

On the 1938 Sanborn map, a boiler room was indicated with a coal bin. A waste house was shown just south of the factory building. The former oil and dye house appeared to have been converted to chemical storage. The storage building had been replaced with a larger warehouse. Three automobile garages had been added along the western boundaries.

- Test pit TP-O (proposed boring B-6) was completed at the location of the former Boiler Room;

- Test pit TP-N (proposed boring B-5) was completed to investigate the former Waste House; and

- Test pits TP-K and TP-M (proposed borings B-1 and B-3, respectively) were completed to investigate former automobile garages.

The 1950 Sanborn map showed the factory building which was labeled G.D. George Co. – wholesale dry goods. Laundry was indicated in the basement in the western portion of the building. Printing was indicated at the east side of the building. The warehouse had been converted to woodworking. Two automobile garages were shown along the western boundaries.

- Test pits TP-B and TP-C, and boring B-7 were completed to investigate the portion of the Sherwood building labeled "Laundry"; B-7 was converted to a temporary monitoring well for investigation of groundwater impacts from former laundry operations.

- Boring B-8 was installed and converted to a temporary monitoring well for investigation of impacts from former printing operations.

- Boring B-4 was installed within the footprint of the former warehouse/woodworking shop.

Test pits TP-H through TP-J provided additional site wide coverage, both within and outside of the former main building footprint.

Former Site Use by NYSDOT – The Site was used by the NYSDOT for staging and storage during highway construction projects. Two test pits (TP-F and TP-G) and one surface soil sample (SS-3) evaluated potential impacts near the right-of-way (ROW) in areas used by the NYSDOT. Surface soil samples SS-1 and SS-2 were collected to evaluate two piles of fill material.

Contingent on field conditions, samples were submitted for analysis of some or all of the following: Target Compound List (TCL) and NYSDEC CP-51 volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), chlorinated pesticides, Resource Conservation and Recovery Act (RCRA) metals (metals), and cyanide. Analyses performed are identified in Table 1.

FIELD INVESTIGATION ACTVIITES

Surface Soil Sampling Program

Three surface soil samples were collected from approximately 2 inches below surface cover on September 26th and 27th, 2016. Two of the three surface soil samples were collected from soil pile or berm type features identified on the Site. SS-1 was collected from a soil pile located in the northwest portion of the Site, and SS-2 was collected from a tall, vegetated berm located in the

center of the Site. The third (SS-3) was collected near the ROW on the eastern side of the Site to provide site wide coverage.

Test Pit Program

Mark IV provided an excavator and operator for the test pit program performed on September 12, 2016. Prior to the initiation of field activities, it is understood that Mark IV contacted Dig Safely New York (Dig Safely) for a standard underground utility stakeout.

In accordance with the proposal, test pits were completed at locations TP-A through TP-J. Given the extent of fill material encountered, which would result in drilling difficulties, and after discussions with Mr. Steven DiMarzo, five additional test pits (TP-K through TP-O) were completed to replace five of the proposed test borings (B-1 through B-3, B-5, and B-6).

The test pits were completed to depths of 8.0 to 10.5 feet below ground surface (ft bgs). As proposed, the test pit excavations were advanced through the fill material and into native soil. Groundwater was not encountered during the test pit program. The fill material was comprised of silty sand and gravel with variable percentages of urban fill (ash, cinders, brick fragments, glass) and construction and demolition debris (metal scraps, piping, concrete blocks). Native soil, primarily sand lithology, was frequently encountered at approximately 6.0 ft bgs, although the top of native lithology ranged from 5.0 to 8.0 ft bgs. Fill material extended deeper to 9.5 ft bgs at location TP-G.

One subsurface soil sample was collected for analysis from each of the following six test pits: TP-C, TP-E, TP-G, TP-J, TP-L, and TP-N to characterize site wide fill. No significant PID readings were observed during the soil screening, except at TP-G (peak reading of 14.5 ppm). The sample collected at TP-G was collected from the depth associated with the elevated PID reading (3.5 ft bgs). Because there were no other indications of significant impacts (e.g., staining, odors, elevated PID readings) at the other test pits, samples were not collected for laboratory analysis from the other test pit locations.

Test pit logs are included in Appendix A.

Test Boring Program

Nothnagle Drilling, Inc. (Nothnagle) of Scottsville, New York was subcontracted by Stantec to perform environmental drilling services. Prior to the initiation of field activities, Nothnagle contacted Dig Safely New York (Dig Safely) for a standard underground utility stakeout.

Four test borings were installed on September 26th and 27th, 2016. All but one of the borings was advanced to refusal at the apparent top of rock. Borings B-7 and B-8, located near I-490,

encountered refusal at depths of 16 ft and 17 ft, respectively. Boring B-9, located away from I-490 and closer to the Site center, encountered refusal at 20.5 ft bgs. Although boring B-4 was completed at 20 ft bgs without refusal, it is anticipated that the top of rock was not much deeper, given the spatial relationship between B-4 and B-9. Saturated soil was encountered in all four of the soil borings just above bedrock. Saturated soil was identified at approximately 14 ft in the borings closest to the expressway (B-7 and B-8). Saturated soil was identified at approximate depths of 17.9 ft in B-4 and 15.2 ft in B-9. The lithology encountered during the boring program was similar to the profiles observed during the test pit program. Fill material extended to depths ranging from approximately 4.2 ft to 8.0 ft. Native sand with variable silt, clay, and gravel components extended until refusal.

Low-level PID readings (ranging from 0.1 to 1.5 ppm) were observed at B-4, B-8, and B-9. Minor black staining was observed at B-4. Except for those observations, no other indications of subsurface soil impacts were noted. Two samples were collected from each of the four soil borings. At B-4, one sample was collected from the interval where staining was observed; a second sample was collected from the saturated native soil. At B-7, B-8, and B-9, one shallow sample was collected from the fill and one deeper sample was collected from the saturated native soil.

Test boring logs are included in Appendix A.

Temporary Monitoring Well Installation and Groundwater Sampling

Three temporary monitoring wells were installed to evaluate the presence of groundwater impacts. The wells were installed at borings B-7, B-8, and B-9.

The wells were installed on September 26th and 27th, 2016. The wells were constructed with 2-inch-diameter Schedule 40 PVC well screen installed to refusal depth (see table below). Filter sand was placed around the well to approximately 2 ft. above the top of the well screen. Bentonite was placed on top of the sand and hydrated to create a hydraulic seal approximately 2.3-2.5 ft. thick. Soil cuttings were placed in the remaining annular space. The PVC extends between 0.2 and 0.7 ft. above the ground surface. No surface seals or protective outer casings were installed given the proposed temporary nature of the installations. The wells were capped with expandable J-plugs. Monitoring well construction logs are included in Appendix A.

On September 29, 2016, all three wells were gauged. As shown in the table below, the two wells located near the expressway were dry.

Reference: **Phase II Environmental Site Assessment**
Karges & Uhlen Place, Rochester, New York

Location ID (see Figure 1)	Construction Details			Gauging Data	
	Well Depth (ft. bgs)	Screen Length (ft.)	Screen Interval (ft. bgs)	Depth to Water (ft. BTOC)	Depth to Bottom (ft. BTOC)
B/MW-7	16.0	10	6.0 – 16.0	dry	16.9
B/MW-8	17.0	10	7.0 – 17.0	dry	17.7
B/MW-9	20.3	10	10.3 – 17.3	19.40	20.2

A groundwater sample was collected from B/MW-9 using low-flow methodology. Given the observed turbidity (less than 50 NTU), no laboratory filtration was necessary.

Location Survey

Stantec established horizontal coordinates of test pits, test borings, and surface soil sample locations using a handheld GPS unit with sub-meter accuracy.

LABORATORY ANALYSIS AND RESULTS

Soil and groundwater samples were submitted for chemical analysis to TestAmerica Laboratories, Inc. (TestAmerica), of Amherst, New York. TestAmerica is accredited under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). A summary of the analytical parameters and methods for each of the samples submitted for laboratory analysis is provided in Table 1. In accordance with the proposal, no quality assurance/quality control (QA/QC) samples such as field duplicates, matrix spike samples, or rinse blanks were collected. The only exception was a trip blank submitted with the groundwater sample and analyzed for VOCs.

Laboratory analytical results are summarized in the attached Tables 2 and 3. Table 2 presents a comparison of the soil analytical data to Soil Cleanup Objectives (SCOs) for the Protection of Human Health Restricted Residential Use (RR) and the Protection of Groundwater (POGW), specified in NYSDEC's Part 375 Environmental Remediation Program regulations. Additionally, these results are compared to NYSDEC's CP-51 Table 1 (Supplemental RR and POGW SCOs). Table 3 presents a comparison of the groundwater analytical data to NYSDEC TOGS 1.1.1 [Class GA] Standards and Guidance Values (SGVs). The laboratory reports are included in Appendix B.

Below is a summary of the detections and exceedances identified.

Reference: **Phase II Environmental Site Assessment**
Karges & Uhlen Place, Rochester, New York

Surface Soil

Cyanide, six metals, four pesticides, and ten SVOCs were reported above detections limits in the three surface soil samples analyzed. However, the only exceedances of SCOs involved SVOCs in one surface soil sample, SS-1. Six SVOCs, specifically PAHs (polycyclic aromatic hydrocarbons), were reported in SS-1 at concentrations exceeding SCOs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-C,D)pyrene. PAHs are commonly found in the byproducts of organic combustion such as ash and cinders which are routinely associated with urban fill.

Subsurface Soil

PCBs, Metals, Pesticides, and Cyanide

Aroclor 1254 was the only PCB detected in subsurface soil. This Aroclor was detected in the shallow fill sample collected from B-7 and reported at a concentration of 0.22 mg/kg, below the applicable SCOs.

Six metals and eight pesticides were reported in the subsurface soil samples. However, none of those detections were reported at concentrations which exceeded the applicable SCOs.

Cyanide was not detected above reporting limits in any of the subsurface soil samples analyzed.

SVOCs

Of the ten subsurface soil samples analyzed for SVOCs three were not reported with any SVOC detections. These samples were collected below the urban fill profile. In the other seven samples, up to 17 SVOCs were reported to be present. Five of these samples, collected from B-7, TP-C, TP-G, TP-J, and TP-N, exhibited concentrations of PAHs greater than their SCOs. Each of these samples was collected from fill and contained some combination of the following compounds exceeding SCO concentrations: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-C,D)pyrene. These findings are consistent with the compounds detected in SS-1 and with typical urban fill profiles.

VOCs

VOCs were reported to be present in 12 of the 14 subsurface soil samples analyzed; however, only two samples exhibited SCO exceedances. One of the samples was collected from TP-N and the other was collected from TP-G, both from the shallow fill. Acetone was reported at a concentration of 190 ug/kg at TP-N, exceeding the POGW SCO of 50 ug/kg but well below the RR SCO of 100,000 ug/kg. It should be noted that acetone is a common laboratory contaminant and may not be indicative of subsurface soil impacts originating from former Site use. Trichloroethylene (TCE), a chlorinated VOC, was reported in TP-G at a concentration of 13,000 µg/Kg, exceeding the POGW SCO of 470 µg/Kg, but below the RR SCO (21,000 µg/Kg).

Reference: **Phase II Environmental Site Assessment**
Karges & Uhlen Place, Rochester, New York

Groundwater

One metal, three pesticides, two SVOCs and three VOCs were reported in the groundwater sample collected from B/MW-9; while cyanide and PCBs were not detected. Of the reported detections, the only exceedances of groundwater standards involved two chlorinated VOCs: trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE), a break-down product of TCE. TCE was reported at a concentration of 85 µg/L, and cis-1,2-DCE was reported at a concentration of 7.1 µg/L, both exceeding their groundwater standard of 5 µg/L. Note that B/MW-9 is located approximately 20 ft north-northwest of, and presumed to be downgradient from, TP-G, where TCE was reported above the POGW SCO and is suspected to be the likely source of the TCE in B/MW-9.

CONCLUSIONS AND RECOMMENDATIONS

Shallow urban fill which is present across the site has been reported to contain SVOCs known as PAHs, which are commonly associated with ash and cinders, at concentrations above applicable SCOs. The VOC acetone was reported in one test pit, TP-N, at a concentration of 190 ug/kg, exceeding the POGW SCO of 50 ug/kg. However, acetone is a common laboratory artifact and its presence in this sample may not be reflective of site conditions. The chlorinated VOC TCE was reported in a soil sample from test pit TP-G, the suspected location of a former oil tank, at a concentration of 13,000 ug/kg, exceeding the POGW SCO of 470/kg. Groundwater monitoring well B/MW-9, located approximately 20 ft. to the north and presumed to be downgradient from TP-G, was reported to contain 85 ug/l of TCE and 7.1 ug/l of cis-1,2-DCE, a breakdown product of TCE. Both compounds exceed their groundwater standard of 5 ug/l.

Given the above findings, and the proposed multi-family redevelopment of this site, further investigation and remedial measures will be needed to address the identified issues. It is recommended that consideration be given to applying for the NYS Brownfield Cleanup Program (BCP). Following implementation of the further investigation and remediation of the site to the satisfaction of the NYSDEC and the NYSDOH, the BCP would provide a release from future liability and the opportunity to apply for refundable tax credits. Equally important, the Certificate of Completion, which will be provided once the remedial measures are implemented, should provide both construction and permanent lenders and occupants of the site with the necessary assurances that the impacts have been properly addressed.

Reference: **Phase II Environmental Site Assessment**
Karges & Uhlen Place, Rochester, New York

CLOSING

Should you have any questions, or require additional information, please contact us.

Sincerely,

STANTEC CONSULTING SERVICES INC.

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Attachments:

Figure 1 – Site Layout and Investigation Locations
Table 1 – Summary of Soil and Groundwater Samples
Table 2 – Summary of Analytical Results for Soil Samples
Table 3 – Summary of Analytical Results for Groundwater Samples
Appendix A – Test Pit, Test Boring, and Monitoring Well Construction Logs
Appendix B – Analytical Laboratory Reports

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FIGURES

Stantec

Legend

- Soil Boring/Monitoring Well Locations
- Soil Boring Location
- Test Pit Locations (Originally Proposed)
- Test Pit Locations (Soil Boring Replacements)
- Surface Soil Sample Locations
- Soil Piles
- Site Boundary

PAHs — Exceedance of Soil Cleanup Objectives in Soil

TCE — Exceedance of Groundwater Standards

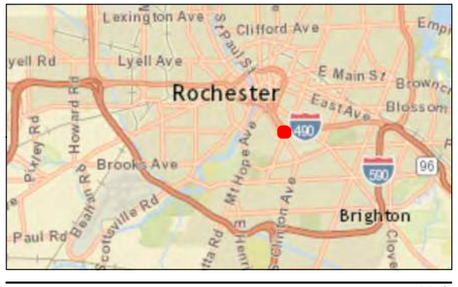
0 40 80 Feet

1:600 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Aerial photo obtained from the NYSGIS Clearinghouse website. Photos dated: 2012.
3. Index Map basemap source: ArcGIS World Street Map
4. Exceedances of regulatory criteria are indicated in comment balloons; note: blue indicates groundwater sample matrix and tan indicates soil sample matrix.
5. Abbreviations:

DCE = dichloroethene
E = exceedance
gw = groundwater
NE = no exceedances
NS = not sampled
PAHs = polycyclic aromatic hydrocarbons
TCE = trichloroethene



Project Location
Karges and Uhlen Place
Rochester, NY

REV0
Prepared by LB on 2016-10-20
1st Technical Review by SRS on 2016-10-xx
2nd Technical Review by MPS on 2016-10-xx

Client/Project
Phase II Environmental Site Assessment
Karges & Uhlen Place
Mark IV Enterprises

Figure No.
1

Title
Investigation Locations and Results

TABLES

Table 1
Summary of Soil and Groundwater Samples
Phase II Environmental Site Assessment
Karges and Uhlen Place, Rochester, NY

	Sample Information			Analyses					
Location ID	ID	Date	Depth (ft bgs)	VOCs[1]	SVOCs[2]	Metals[3]	Cyanide[4]	PCBs[5]	Pesticides[6]
Test Boring Soil									
B-4	KU-B-4-s1	9/26/2016	8.0 - 8.5	x					
	KU-B-4-s2	9/26/2016	17.9 - 18.2	x	x				
B-7	KU-B-7-s1	9/26/2016	2.5 - 3.2	x	x	x	x	x	x
	KU-B-7-s2	9/26/2016	14.0 - 14.5	x					
B-8	KU-B-8-s1	9/26/2016	5.0 - 6.0	x	x	x	x	x	x
	KU-B-8-s2	9/26/2016	14.0 - 14.5	x					
B-9	KU-B-9-s1	9/27/2016	7.0 - 8.0	x	x	x	x	x	x
	KU-B-9-s2	9/27/2016	15.0 - 15.5	x					
Test Pit Soil									
TP-C	KU-TP-C-s	9/12/2016	3.5	x	x	x	x	x	x
TP-E	KU-TP-E-s	9/12/2016	4.0	x	x	x	x	x	x
TP-G	KU-TP-G-s	9/12/2016	3.5	x	x	x	x	x	x
TP-J	KU-TP-J-s	9/12/2016	2.5	x	x	x	x	x	x
TP-L	KU-TP-L-s	9/12/2016	2.0	x	x	x	x	x	x
TP-N	KU-TP-N-s	9/12/2016	2.5	x	x	x	x	x	x
Surface Soil									
SS-1	KU-SS-1	9/26/2016	0.2		x	x	x	x	x
SS-2	KU-SS-2	9/27/2016	0.2		x	x	x	x	x
SS-3	KU-SS-3	9/27/2016	0.2		x	x	x	x	x
Groundwater									
B/MW-9	KU-MW-9-w	9/29/2016	-	x	x	x	x	x	x

Notes
[1] USEPA TCL and NYSDEC CP-51 VOCs by USEPA Method 8260C.
[2] USEPA TCL SVOCs by USEPA Method 8270D.
[3] RCRA Metals by USEPA Methods 6010C/7470A/7471B.
[4] Total Cyanide by USEPA Method 9012B.
[5] USEPA TCL PCBs by USEPA Method 8082A.
[6] USEPA TCL Pesticides by USEPA Method 8081B.

Key

B = boring
CP-51 = Commissioner Policy, Soil Cleanup Guidance, October 21, 2010
ft bgs = feet below ground surface
MW = monitoring well
NYSDEC = New York State Department of Environmental Conservation
PCB = polychlorinated biphenyl
RCRA = Resource Conservation and Recovery Act
SS = surface soil
SVOC = semivolatile organic compound
TCL = target compound list
TP = test pit
USEPA = United States Environmental Protection Agency
VOC = volatile organic compound

Table 2
Summary of Soil Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location				B-4		B-7		B-8		B-9		KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	SS-1	SS-2	SS-3
Sample Date				26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16
Sample ID		NYSDEC		KU-B-4-S1	KU-B-4-S2	KU-B-7-S1	KU-B-7-S2	KU-B-8-S1	KU-B-8-S2	KU-B-9-S1	KU-B-9-S2	KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	KU-SS-1	KU-SS-2	KU-SS-3
Sample Depth				8 - 8.5 ft BGS	17.9 - 18.2 ft BGS	2.5 - 3.2 ft BGS	14 - 14.5 ft BGS	5 - 6 ft BGS	14 - 14.5 ft BGS	7 - 8 ft BGS	15 - 15.5 ft BGS	3.5 ft BGS	4 ft BGS	3.5 ft BGS	2.5 ft BGS	2 ft BGS	2.5 ft BGS	0.2 ft BGS	0.2 ft BGS	0.2 ft BGS
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801058991	4801058991	4801058991	4801058991	4801058991	4801058991	4801066291	4801066291	4801066291
Laboratory Sample ID	Units	Part 375	CP-51	480-106629-4	480-106629-5	480-106629-6	480-106629-7	480-106629-8	480-106629-9	480-106629-10	480-106629-11	480-105899-1	480-105899-2	480-105899-3	480-105899-4	480-105899-5	480-105899-6	480-106629-1	480-106629-2	480-106629-3
General Chemistry																				
Cyanide	mg/kg	27[A] 40[B]	n/v	-	-	0.99 UT	-	1.0 UT	-	1.0 UT	-	0.98 U	1.1 U	1.0 U	1.1 U	1.0 U	0.99 U	9.4	1.1 UT	1.1 UT
Metals																				
Arsenic	mg/kg	16[g,A] 16[g,B]	n/v	-	-	5.0	-	3.3	-	8.8	-	3.7	5.3	4.4	4.9	5.5	4.8	3.5	3.4	3.6
Barium	mg/kg	400[A] 820[B]	n/v	-	-	152	-	33.5	-	60.2	-	59.9 T	84.8	57.5	119	140	96.0	49.0	31.2 T	39.2
Cadmium	mg/kg	4.3[A] 7.5[B]	n/v	-	-	0.43	-	0.11 J	-	0.18 J	-	0.41	0.38	0.19 J	0.28	0.53	0.46	0.35	0.28	0.30
Chromium, Total	mg/kg	180[A,NS,q] [B]	n/v	-	-	13.8	-	6.5	-	7.9	-	11.6	11.0	9.9	14.7	16.3	13.9	93.5	7.5	10.3
Lead	mg/kg	400[A] 450[B]	n/v	-	-	158	-	6.7	-	7.4	-	99.2 T	236	73.3	86.3	121	158	70.7	52.5	56.0
Mercury	mg/kg	0.81[k,A] 0.73[B]	n/v	-	-	0.71	-	0.020 U	-	0.021 U	-	0.093	0.17	0.17	0.23	0.15	0.18	0.016 J	0.067	0.070
Selenium	mg/kg	180[A] 4[g,B]	n/v	-	-	4.0 U	-	4.1 U	-	4.5 U	-	4.4 U	4.6 U	4.5 U	4.8 U	4.4 U	4.4 U	4.5 U	4.4 U	4.6 U
Silver	mg/kg	180[A] 8.3[B]	n/v	-	-	0.61 U	-	0.61 U	-	0.67 U	-	0.24 J	0.68 U	0.68 U	0.72 U	0.75	0.67 U	0.67 U	0.66 U	0.68 U
Polychlorinated Biphenyls																				
PCB-1016 (Aroclor 1016)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1221 (Aroclor 1221)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1232 (Aroclor 1232)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1242 (Aroclor 1242)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1248 (Aroclor 1248)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1254 (Aroclor 1254)	mg/kg	[o,AB]	n/v	-	-	0.22	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
PCB-1260 (Aroclor 1260)	mg/kg	[o,AB]	n/v	-	-	0.17 U	-	0.18 U	-	0.20 U	-	0.22 U	0.21 U	0.23 U	0.18 U	0.24 U	0.22 U	0.18 U	0.24 U	0.17 U
Polychlorinated Biphenyl (PCBs)	mg/kg	1[A] 3.2[B]	n/v	-	-	0.22	-	ND	-	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides																				
Aldrin	µg/kg	97[A] 190[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	µg/kg	480[A] 20[B]	n/v	-	-	7.4 BJ	-	0.41 BJ	-	0.42 BJ	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Alpha Chlordane	µg/kg	4200[A] 2900[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Alpha Endosulfan	µg/kg	24000[I,A] 102000[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Beta Bhc (Beta Hexachlorocyclohexane)	µg/kg	360[A] 90[B]	n/v	-	-	17 J	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	18 J	19 U	19 U
Beta Endosulfan	µg/kg	24000[I,A] 102000[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Delta BHC (Delta Hexachlorocyclohexane)	µg/kg	100000[b,A] 250[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Dieldrin	µg/kg	200[A] 100[B]	n/v	-	-	9.5 J	-	1.7 U	-	1.7 U	-	8.8 U	24	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Endosulfan Sulfate	µg/kg	24000[I,A] 1000000[d,B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Endrin	µg/kg	11000[A] 60[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Endrin Aldehyde	µg/kg	100000[b,A] 1000000[d,B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Endrin Ketone	µg/kg	100000[b,A] 1000000[d,B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Gamma Bhc (Lindane)	µg/kg	1300[A] 100[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	2.4 J	9.3 U	18 U	18 U	3.5 U	37 U	19 J	19 U	19 U
Gamma Chlordane	µg/kg	100000[b,A] 1000000[d,B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Heptachlor	µg/kg	2100[A] 380[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Heptachlor Epoxide	µg/kg	100000[b,A] 1000000[d,B]	20[D]	-	-	36 U	-	1.7 U	-	1.7 U	-	8.8 U	9.3 U	18 U	18 U	3.5 U	37 U	87 U	19 U	19 U
Methoxychlor	µg/kg	100000[b,A] 1000000[d,B]	900000[D]	-	-	15 J	-	1.7 U	-	1.7 U	-	2.9 J	2.8 J	6.9 J	7.0 J	1.3 J	8.7 J	87 U	19 U	19 U
P,P'-DDD	µg/kg	13000[A] 14000[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	8.0 J	31	18 U	18 U	3.5 U	110	87 U	22	19 U
P,P'-DDE	µg/kg	8900[A] 17000[B]	n/v	-	-	36 U	-	1.7 U	-	1.7 U	-	7.7 J	81	3.9 J	18 U	8.0	62	87 U	7.9 J	19 U
P,P'-DDT	µg/kg	7900[A] 136000[B]	n/v	-	-	9.3 J	-	0.52 J	-	1.7 U	-	11	170	18 U	18 U	13	170	27 J	10 J	6.4 J
Toxaphene	µg/kg	100000[b,A] 1000000[d,B]	n/v	-	-	360 U	-	17 U	-	17 U	-	88 U	93 U	180 U	180 U	35 U	370 U	870 U	190 U	190 U

See notes on last page.

Table 2
Summary of Soil Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location				B-4		B-7		B-8		B-9		KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	SS-1	SS-2	SS-3
Sample Date				26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16
Sample ID		NYSDEC		KU-B-4-S1	KU-B-4-S2	KU-B-7-S1	KU-B-7-S2	KU-B-8-S1	KU-B-8-S2	KU-B-9-S1	KU-B-9-S2	KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	KU-SS-1	KU-SS-2	KU-SS-3
Sample Depth				8 - 8.5 ft BGS	17.9 - 18.2 ft BGS	2.5 - 3.2 ft BGS	14 - 14.5 ft BGS	5 - 6 ft BGS	14 - 14.5 ft BGS	7 - 8 ft BGS	15 - 15.5 ft BGS	3.5 ft BGS	4 ft BGS	3.5 ft BGS	2.5 ft BGS	2 ft BGS	2.5 ft BGS	0.2 ft BGS	0.2 ft BGS	0.2 ft BGS
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801058991	4801058991	4801058991	4801058991	4801058991	4801058991	4801066291	4801066291	4801066291
Laboratory Sample ID	Units	Part 375	CP-51	480-106629-4	480-106629-5	480-106629-6	480-106629-7	480-106629-8	480-106629-9	480-106629-10	480-106629-11	480-105899-1	480-105899-2	480-105899-3	480-105899-4	480-105899-5	480-105899-6	480-106629-1	480-106629-2	480-106629-3
Semi-Volatile Organic Compounds																				
2,4,5-Trichlorophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	100[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2,4,6-Trichlorophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2,4-Dichlorophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	400[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2,4-Dimethylphenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2,4-Dinitrophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	200[D]	-	1900 U	18000 U	-	1700 U	-	1700 U	-	8600 U	1900 U	9200 U	9100 U	8500 U	37000 U	34000 U	18000 U	9400 U
2,4-Dinitrotoluene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2,6-Dinitrotoluene	µg/kg	100000$_b$[A] 1000000$_d$[B]	1000/170$_{b,s1}$[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2-Chloronaphthalene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2-Chlorophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2-Methylnaphthalene	µg/kg	100000$_b$[A] 1000000$_d$[B]	36400[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2-Methylphenol (O-Cresol)	µg/kg	100000$_b$[A] 330$_f$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
2-Nitroaniline	µg/kg	100000$_b$[A] 1000000$_d$[B]	400[D]	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
2-Nitrophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	300[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
3,3'-Dichlorobenzidine	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
3-Nitroaniline	µg/kg	100000$_b$[A] 1000000$_d$[B]	500[D]	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
4,6-Dinitro-2-Methylphenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
4-Bromophenyl Phenyl Ether	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
4-Chloro-3-Methylphenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
4-Chloroaniline	µg/kg	100000$_b$[A] 1000000$_d$[B]	220[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
4-Chlorophenyl Phenyl Ether	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
4-Methylphenol (P-Cresol)	µg/kg	100000$_b$[A] 330$_f$[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
4-Nitroaniline	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
4-Nitrophenol	µg/kg	100000$_b$[A] 1000000$_d$[B]	100[D]	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
Acenaphthene	µg/kg	100000$_b$[A] 98000[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	220 J	870 U	3800 U	3500 U	1900 U	960 U
Acenaphthylene	µg/kg	100000$_b$[A] 107000[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	49 J	270 J	450 J	870 U	3800 U	3500 U	1900 U	960 U
Acetophenone	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Anthracene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	570 J	-	170 U	-	170 U	-	260 J	65 J	320 J	770 J	870 U	3800 U	3500 U	1900 U	960 U
Atrazine	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Benzaldehyde	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Benzo(A)Anthracene	µg/kg	1000$_g$[A] 1000[B]	n/v	-	200 U	**1700 J[AB]**	-	170 U	-	170 U	-	880	320	**1300[AB]**	**2300[AB]**	310 J	**2400 J[AB]**	**2500 J[AB]**	510 J	460 J
Benzo(A)Pyrene	µg/kg	1000$_g$[A] 22000[B]	n/v	-	200 U	**1800[A]**	-	170 U	-	170 U	-	970	340	**1800[A]**	**2300[A]**	390 J	**2200 J[A]**	**3300 J[A]**	510 J	530 J
Benzo(B)Fluoranthene	µg/kg	1000$_g$[A] 1700[B]	n/v	-	200 U	**2400[AB]**	-	170 U	-	170 U	-	**1200[A]**	390	**2200[AB]**	**3200[AB]**	610 J	**2900 J[AB]**	**4900[AB]**	600 J	630 J
Benzo(G,H,I)Perylene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1500 J	-	170 U	-	170 U	-	750 J	260	1700	1900	340 J	1800 J	3800	360 J	480 J
Benzo(K)Fluoranthene	µg/kg	3900[A] 1700[B]	n/v	-	200 U	1300 J	-	170 U	-	170 U	-	410 J	160 J	670 J	1100	870 U	580 J	**1800 J[B]**	330 J	400 J
Benzyl Alcohol	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
Benzyl Butyl Phthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	122000[D]	-	200 U	1800 U	-	170 U	-	170 U	-	370 J	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Biphenyl (Diphenyl)	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Bis(2-Chloroethoxy) Methane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Bis(2-Chloroisopropyl) Ether	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 UT	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Bis(2-Ethylhexyl) Phthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	435000[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Caprolactam	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Carbazole	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	260 J	-	170 U	-	170 U	-	880 U	23 J	940 U	390 J	870 U	3800 U	3500 U	1900 U	960 U
Chrysene	µg/kg	3900[A] 1000$_g$[B]	n/v	-	200 U	**1800[B]**	-	170 U	-	170 U	-	**1100[B]**	350	**1500[B]**	**2700[B]**	390 J	**2600 J[B]**	**3500[B]**	610 J	560 J
Dibenz(A,H)Anthracene	µg/kg	330$_f$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Dibenzofuran	µg/kg	59000[A] 210000[B]	6200[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	280 J	870 U	3800 U	3500 U	1900 U	960 U
Diethyl Phthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	7100[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Dimethyl Phthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	27000[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Di-N-Butyl Phthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	8100[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	630	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Di-N-Octylphthalate	µg/kg	100000$_b$[A] 1000000$_d$[B]	120000[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U

See notes on last page.

Table 2
Summary of Soil Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location				B-4		B-7		B-8		B-9		KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	SS-1	SS-2	SS-3
Sample Date				26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16
Sample ID		NYSDEC		KU-B-4-S1	KU-B-4-S2	KU-B-7-S1	KU-B-7-S2	KU-B-8-S1	KU-B-8-S2	KU-B-9-S1	KU-B-9-S2	KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	KU-SS-1	KU-SS-2	KU-SS-3
Sample Depth				8 - 8.5 ft BGS	17.9 - 18.2 ft BGS	2.5 - 3.2 ft BGS	14 - 14.5 ft BGS	5 - 6 ft BGS	14 - 14.5 ft BGS	7 - 8 ft BGS	15 - 15.5 ft BGS	3.5 ft BGS	4 ft BGS	3.5 ft BGS	2.5 ft BGS	2 ft BGS	2.5 ft BGS	0.2 ft BGS	0.2 ft BGS	0.2 ft BGS
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801058991	4801058991	4801058991	4801058991	4801058991	4801058991	4801066291	4801066291	4801066291
Laboratory Sample ID	Units	Part 375	CP-51	480-106629-4	480-106629-5	480-106629-6	480-106629-7	480-106629-8	480-106629-9	480-106629-10	480-106629-11	480-105899-1	480-105899-2	480-105899-3	480-105899-4	480-105899-5	480-105899-6	480-106629-1	480-106629-2	480-106629-3
Semi-Volatile Organic Compounds (cont'd)																				
Fluoranthene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	3600	-	170 U	-	170 U	-	2000	640	2200	5700	580 J	6200	6900	1000 J	930 J
Fluorene	µg/kg	100000$_b$[A] 386000[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	24 J	110 J	330 J	870 U	3800 U	3500 U	1900 U	960 U
Hexachlorobenzene	µg/kg	1200[A] 3200[B]	1400[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Hexachlorobutadiene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Hexachlorocyclopentadiene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Hexachloroethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Indeno(1,2,3-C,D)Pyrene	µg/kg	500$_b$[A] 8200[B]	n/v	-	200 U	**1300 J[A]**	-	170 U	-	170 U	-	**640 J[A]**	230	**1400[A]**	**1700[A]**	290 J	**1500 J[A]**	**2900 J[A]**	320 J	390 J
Isophorone	µg/kg	100000$_b$[A] 1000000$_d$[B]	4400[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Naphthalene	µg/kg	100000$_b$[A] 12000[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	270 J	870 U	3800 U	3500 U	1900 U	960 U
Nitrobenzene	µg/kg	100000$_b$[A] 1000000$_d$[B]	15000[C] 170$_b$[D]	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
N-Nitrosodi-N-Propylamine	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
N-Nitrosodiphenylamine	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Pentachlorophenol	µg/kg	6700[A] 800[B]	n/v	-	390 U	3500 U	-	330 U	-	340 U	-	1700 U	370 U	1800 U	1800 U	1700 U	7400 U	6800 U	3700 U	1900 U
Phenanthrene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	2500	-	170 U	-	170 U	-	1100	290	1100	4200	310 J	3300 J	2500 J	870 J	360 J
Phenol	µg/kg	100000$_b$[A] 330[B]	n/v	-	200 U	1800 U	-	170 U	-	170 U	-	880 U	190 U	940 U	930 U	870 U	3800 U	3500 U	1900 U	960 U
Pyrene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	-	200 U	2700	-	170 U	-	170 U	-	1600	560	2200	4600	530 J	4200	5200	840 J	750 J
Volatile Organic Compounds																				
1,1,1-Trichloroethane	µg/kg	100000$_b$[A] 680[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	600[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 UT	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	6000[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,1,2-Trichloroethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,1-Dichloroethane	µg/kg	26000[A] 270[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,1-Dichloroethene	µg/kg	100000$_b$[A] 330[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,2,4-Trichlorobenzene	µg/kg	100000$_b$[A] 1000000$_d$[B]	3400[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,2,4-Trimethylbenzene	µg/kg	52000[A] 3600[B]	n/v	4.3 J	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,2-Dibromo-3-Chloropropane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 UT	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,2-Dichlorobenzene	µg/kg	100000$_b$[A] 1100[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,2-Dichloroethane	µg/kg	3100[A] 20$_g$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,2-Dichloropropane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	52000[A] 8400[B]	n/v	1.6 J	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
1,3-Dichlorobenzene	µg/kg	49000[A] 2400[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
1,4-Dichlorobenzene	µg/kg	13000[A] 1800[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
2-Hexanone	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	29 U	29 U	26 U	28 U	25 U	27 U	26 U	26 U	26 U	27 U	28 U	28 U	26 U	28 U	-	-	-
Acetone	µg/kg	100000$_b$[A] 50[B]	n/v	46 B	5.4 BJ	26 U	28 U	25 U	7.3 BJ	26 U	5.1 BJ	26 U	27 U	28 U	28 U	26 U	**190 T[B]**	-	-	-
Benzene	µg/kg	4800[A] 60[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Bromodichloromethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Bromoform	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Bromomethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Carbon Disulfide	µg/kg	100000$_b$[A] 1000000$_d$[B]	2700[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Carbon Tetrachloride	µg/kg	2400[A] 760[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Chlorobenzene	µg/kg	100000$_b$[A] 1100[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Chloroethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	1900[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 UT	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Chloroform	µg/kg	49000[A] 370[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	0.36 BJ	5.5 U	0.33 BJ	0.43 BJ	-	-	-
Chloromethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Cis-1,2-Dichloroethylene	µg/kg	100000$_b$[A] 250[B]	n/v	5.8 U	2.2 J	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	17	5.5 U	5.2 U	5.6 U	-	-	-
Cis-1,3-Dichloropropene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
Cyclohexane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Cymene	µg/kg	100000$_b$[A] 1000000$_d$[B]	10000[D]	0.52 J	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Dibromochloromethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 UT	5.4 UT	5.6 UT	5.5 UT	5.2 UT	5.6 UT	-	-	-
Dichlorodifluoromethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-

See notes on last page.

Table 2
Summary of Soil Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location				B-4		B-7		B-8		B-9		KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	SS-1	SS-2	SS-3
Sample Date				26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	12-Sep-16	26-Sep-16	27-Sep-16	27-Sep-16
Sample ID				KU-B-4-S1	KU-B-4-S2	KU-B-7-S1	KU-B-7-S2	KU-B-8-S1	KU-B-8-S2	KU-B-9-S1	KU-B-9-S2	KU-TP-C-S	KU-TP-E-S	KU-TP-G-S	KU-TP-J-S	KU-TP-L-S	KU-TP-N-S	KU-SS-1	KU-SS-2	KU-SS-3
Sample Depth		NYSDEC		8 - 8.5 ft BGS	17.9 - 18.2 ft BGS	2.5 - 3.2 ft BGS	14 - 14.5 ft BGS	5 - 6 ft BGS	14 - 14.5 ft BGS	7 - 8 ft BGS	15 - 15.5 ft BGS	3.5 ft BGS	4 ft BGS	3.5 ft BGS	2.5 ft BGS	2 ft BGS	2.5 ft BGS	0.2 ft BGS	0.2 ft BGS	0.2 ft BGS
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801066291	4801058991	4801058991	4801058991	4801058991	4801058991	4801058991	4801066291	4801066291	4801066291
Laboratory Sample ID	Units	Part 375	CP-51	480-106629-4	480-106629-5	480-106629-6	480-106629-7	480-106629-8	480-106629-9	480-106629-10	480-106629-11	480-105899-1	480-105899-2	480-105899-3	480-105899-4	480-105899-5	480-105899-6	480-106629-1	480-106629-2	480-106629-3
Volatile Organic Compounds (cont'd)																				
Ethylbenzene	µg/kg	41000[A] 1000[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Isopropylbenzene (Cumene)	µg/kg	100000$_b$[A] 1000000$_d$[B]	2300[D]	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
M,P-Xylene	µg/kg	100000$_{b,p}$[A] 1600$_p$[B]	n/v	12 U	12 U	10 U	11 U	10 U	11 U	10 U	10 U	10 U	11 U	11 U	11 U	10 U	11 U	-	-	-
Methyl Acetate	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	29 U	29 U	26 U	28 U	25 U	27 U	26 U	26 U	26 U	27 U	28 U	28 U	26 U	28 U	-	-	-
Methyl Ethyl Ketone (2-Butanone)	µg/kg	100000$_b$[A] 120[B]	300[D]	29 U	29 U	26 U	28 U	25 U	27 U	26 U	26 UT	26 U	27 U	28 U	28 U	26 U	33 T	-	-	-
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/kg	100000$_b$[A] 1000000$_d$[B]	1000[D]	29 U	29 U	26 U	28 U	25 U	27 U	26 U	26 U	26 U	27 U	28 U	28 U	26 U	28 U	-	-	-
Methylcyclohexane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	1.5 J	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Methylene Chloride	µg/kg	100000$_b$[A] 50[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	4.6 BJ	7.6 B	7.9 B	7.5 B	11 B	-	-	-
Naphthalene	µg/kg	100000$_b$[A] 12000[B]	n/v	2.8 J	5.8 U	0.81 J	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
N-Butylbenzene	µg/kg	100000$_b$[A] 12000[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
N-Propylbenzene	µg/kg	100000$_b$[A] 3900[B]	n/v	0.57 J	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
O-Xylene (1,2-Dimethylbenzene)	µg/kg	100000$_{b,p}$[A] 1600$_p$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Sec-Butylbenzene	µg/kg	100000$_b$[A] 11000[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Styrene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 UT	-	-	-
T-Butylbenzene	µg/kg	100000$_b$[A] 5900[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Tert-Butyl Methyl Ether	µg/kg	100000$_b$[A] 930[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Tetrachloroethylene (PCE)	µg/kg	19000[A] 1300[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	0.81 J	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Toluene	µg/kg	100000$_b$[A] 700[B]	n/v	5.8 U	5.8 U	0.61 J	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Trans-1,2-Dichloroethene	µg/kg	100000$_b$[A] 190[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	0.70 J	5.5 U	5.2 U	5.6 UT	-	-	-
Trans-1,3-Dichloropropene	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Trichloroethylene (TCE)	µg/kg	21000[A] 470[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	24	27 T	5.2 U	5.4 U	**13000[B]**	5.5 U	5.2 U	5.6 U	-	-	-
Trichlorofluoromethane	µg/kg	100000$_b$[A] 1000000$_d$[B]	n/v	5.8 U	5.8 U	5.2 U	5.5 U	5.1 U	5.5 U	5.2 U	5.2 U	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Vinyl Chloride	µg/kg	900[A] 20[B]	n/v	5.8 UT	5.8 UT	5.2 UT	5.5 UT	5.1 UT	5.5 UT	5.2 UT	5.2 UT	5.2 U	5.4 U	5.6 U	5.5 U	5.2 U	5.6 U	-	-	-
Xylenes, Total	µg/kg	100000$_b$[A] 1600[B]	n/v	12 U	12 U	10 U	11 U	10 U	11 U	10 U	10 U	10 U	11 U	11 U	11 U	10 U	11 UT	-	-	-

Notes:

NYSDEC Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
[A]	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Restricted Residential
[B]	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
[C]	Table 1 Supplemental Soil Cleanup Objectives - Restricted Residential
[D]	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[A] b	The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
[D] b	Based on rural background study
b,p	The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
b,s1	Based on rural background study. The value of 1.0 refers to SVOC analses while the 0.17b refers to VOC analyses.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
[AB] f	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
[AB] g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
[AB] i	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
j	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
k	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
NS,q	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
T	QC recovery is outside acceptable limits.
TALBUFF	Test America Laboratires Inc., Buffalo, NY
ft BGS	feet below ground surface

Table 3
Summary of Groundwater Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location	Units	TOGS	MW-9	TRIPBLANK
Sample Date			29-Sep-16	29-Sep-16
Sample ID			KU-MW-9-W	TRIP BLANK
Sampling Company			STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF
Laboratory Work Order			4801067931	4801067931
Laboratory Sample ID			480-106793-1	480-106793-2
Sample Type				TRIP BLANK
General Chemistry				
Cyanide	mg/L	0.2[B]	0.010 U	-
Metals				
Arsenic	mg/L	0.025[B]	0.015 U	-
Barium	mg/L	1[B]	0.049	-
Cadmium	mg/L	0.005[B]	0.0020 U	-
Chromium, Total	mg/L	0.05[B]	0.0040 U	-
Lead	mg/L	0.025[B]	0.010 U	-
Mercury	mg/L	0.0007[B]	0.00020 U	-
Selenium	mg/L	0.01[B]	0.025 U	-
Silver	mg/L	0.05[B]	0.0060 U	-
Polychlorinated Biphenyls				
PCB-1016 (Aroclor 1016)	µg/L	0.09[B]	0.48 U	-
PCB-1221 (Aroclor 1221)	µg/L	0.09[B]	0.48 U	-
PCB-1232 (Aroclor 1232)	µg/L	0.09[B]	0.48 U	-
PCB-1242 (Aroclor 1242)	µg/L	0.09[B]	0.48 U	-
PCB-1248 (Aroclor 1248)	µg/L	0.09[B]	0.48 U	-
PCB-1254 (Aroclor 1254)	µg/L	0.09[B]	0.48 U	-
PCB-1260 (Aroclor 1260)	µg/L	0.09[B]	0.48 U	-
Polychlorinated Biphenyl (PCBs)	µg/L	0.09_b[B]	ND	-
Pesticides				
Aldrin	µg/L	n/v	0.050 UT	-
Alpha Bhc (Alpha Hexachlorocyclohexane)	µg/L	0.01[B]	0.0093 BJ	-
Alpha Chlordane	µg/L	n/v	0.050 UT	-
Alpha Endosulfan	µg/L	n/v	0.050 U	-
Beta Bhc (Beta Hexachlorocyclohexane)	µg/L	0.04[B]	0.050 U	-
Beta Endosulfan	µg/L	n/v	0.050 U	-
Delta BHC (Delta Hexachlorocyclohexane)	µg/L	0.04[B]	0.010 J	-
Dieldrin	µg/L	0.004[B]	0.050 U	-
Endosulfan Sulfate	µg/L	n/v	0.050 U	-
Endrin	µg/L	n/v	0.050 U	-
Endrin Aldehyde	µg/L	5**[B]	0.044 BJ	-
Endrin Ketone	µg/L	5**[B]	0.050 U	-
Gamma Bhc (Lindane)	µg/L	0.05[B]	0.050 U	-
Gamma Chlordane	µg/L	n/v	0.050 U	-
Heptachlor	µg/L	0.04[AB]	0.050 U	-
Heptachlor Epoxide	µg/L	0.03[B]	0.050 U	-
Methoxychlor	µg/L	35[B]	0.050 U	-
P,P'-DDD	µg/L	0.3[B]	0.050 U	-
P,P'-DDE	µg/L	0.2[B]	0.050 U	-
P,P'-DDT	µg/L	0.2[B]	0.050 U	-
Toxaphene	µg/L	0.06[B]	0.50 U	-
Semi-Volatile Organic Compounds				
2,4-Dinitrotoluene	µg/L	5**[B]	4.9 U	-
2,6-Dinitrotoluene	µg/L	5**[B]	4.9 U	-
2-Chloronaphthalene	µg/L	10[B]	4.9 U	-
2-Methylnaphthalene	µg/L	n/v	4.9 U	-
2-Nitroaniline	µg/L	5**[B]	9.8 U	-
3,3'-Dichlorobenzidine	µg/L	5**[B]	4.9 U	-
3-Nitroaniline	µg/L	5**[B]	9.8 U	-
4-Bromophenyl Phenyl Ether	µg/L	n/v	4.9 U	-
4-Chloroaniline	µg/L	5**[B]	4.9 U	-
4-Chlorophenyl Phenyl Ether	µg/L	n/v	4.9 U	-
4-Nitroaniline	µg/L	5**[B]	9.8 U	-
Acenaphthene	µg/L	20[B]	4.9 U	-
Acenaphthylene	µg/L	n/v	4.9 U	-
Acetophenone	µg/L	n/v	4.9 U	-
Anthracene	µg/L	50[A]	4.9 U	-
Atrazine	µg/L	7.5[B]	4.9 U	-
Benzaldehyde	µg/L	n/v	0.29 JT	-
Benzo(A)Anthracene	µg/L	0.002[A]	4.9 U	-
Benzo(A)Pyrene	µg/L	n/v	4.9 U	-
Benzo(B)Fluoranthene	µg/L	0.002[A]	4.9 U	-
Benzo(G,H,I)Perylene	µg/L	n/v	4.9 U	-
Benzo(K)Fluoranthene	µg/L	0.002[A]	4.9 U	-
Benzyl Butyl Phthalate	µg/L	50[A]	4.9 U	-
Biphenyl (Diphenyl)	µg/L	5**[B]	4.9 U	-
Bis(2-Chloroethoxy) Methane	µg/L	5**[B]	4.9 U	-
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/L	1[B]	4.9 U	-
Bis(2-Chloroisopropyl) Ether	µg/L	5**[B]	4.9 U	-
Bis(2-Ethylhexyl) Phthalate	µg/L	5[B]	4.9 U	-
Caprolactam	µg/L	n/v	4.9 U	-
Carbazole	µg/L	n/v	4.9 U	-
Chrysene	µg/L	0.002[A]	4.9 U	-
Dibenz(A,H)Anthracene	µg/L	n/v	4.9 U	-
Dibenzofuran	µg/L	n/v	9.8 U	-
Diethyl Phthalate	µg/L	50[A]	0.28 J	-
Dimethyl Phthalate	µg/L	50[A]	4.9 U	-
Di-N-Butyl Phthalate	µg/L	50[B]	4.9 U	-
Di-N-Octylphthalate	µg/L	50[A]	4.9 U	-
Fluoranthene	µg/L	50[A]	4.9 U	-
Fluorene	µg/L	50[A]	4.9 U	-
Hexachlorobenzene	µg/L	0.04[B]	4.9 U	-
Hexachlorobutadiene	µg/L	0.5[B]	4.9 U	-
Hexachlorocyclopentadiene	µg/L	5**[B]	4.9 U	-
Hexachloroethane	µg/L	5**[B]	4.9 U	-
Indeno(1,2,3-C,D)Pyrene	µg/L	0.002[A]	4.9 U	-
Isophorone	µg/L	50[A]	4.9 U	-
Naphthalene	µg/L	10[B]	4.9 U	-
Nitrobenzene	µg/L	0.4[B]	4.9 U	-
N-Nitrosodi-N-Propylamine	µg/L	n/v	4.9 U	-
N-Nitrosodiphenylamine	µg/L	50[A]	4.9 U	-
Phenanthrene	µg/L	50[A]	4.9 U	-
Pyrene	µg/L	50[A]	4.9 U	-

See notes on last page.

Table 3
Summary of Groundwater Analytical Results
Phase II Environmental Site Assessment
Karges & Uhlen Place, Rochester, NY

Sample Location			MW-9	TRIPBLANK
Sample Date			29-Sep-16	29-Sep-16
Sample ID			KU-MW-9-W	TRIP BLANK
Sampling Company			STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF
Laboratory Work Order			4801067931	4801067931
Laboratory Sample ID			480-106793-1	480-106793-2
Sample Type	Units	TOGS		TRIP BLANK
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	5** B	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	5** B	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	5** B	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1 B	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	5** B	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	5** B	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	5** B	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	5** B	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	µg/L	0.04 B	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.0006 B	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	3 B	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	0.6 B	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1 B	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	5** B	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	3 B	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	3 B	1.0 U	1.0 U
2-Hexanone	µg/L	50 A	5.0 U	5.0 U
Acetone	µg/L	50 A	10 U	10 U
Benzene	µg/L	1 B	1.0 U	1.0 U
Bromodichloromethane	µg/L	50 A	1.0 U	1.0 U
Bromoform	µg/L	50 A	1.0 U	1.0 U
Bromomethane	µg/L	5** B	1.0 U	1.0 U
Carbon Disulfide	µg/L	60 A	0.22 J	1.0 U
Carbon Tetrachloride	µg/L	5 B	1.0 U	1.0 U
Chlorobenzene	µg/L	5** B	1.0 U	1.0 U
Chloroethane	µg/L	5** B	1.0 U	1.0 U
Chloroform	µg/L	7 B	1.0 U	1.0 U
Chloromethane	µg/L	5** B	1.0 U	1.0 U
Cis-1,2-Dichloroethylene	µg/L	5** B	**7.1 B**	1.0 U
Cis-1,3-Dichloropropene	µg/L	0.4 p B	1.0 U	1.0 U
Cyclohexane	µg/L	n/v	1.0 U	1.0 U
Cymene	µg/L	5** B	1.0 U	1.0 U
Dibromochloromethane	µg/L	50 A	1.0 U	1.0 U
Dichlorodifluoromethane	µg/L	5** B	1.0 U	1.0 U
Ethylbenzene	µg/L	5** B	1.0 U	1.0 U
Isopropylbenzene (Cumene)	µg/L	5** B	1.0 U	1.0 U
M,P-Xylene	µg/L	n/v	2.0 U	2.0 U
Methyl Acetate	µg/L	n/v	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	µg/L	50 A	10 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	n/v	5.0 U	5.0 U
Methylcyclohexane	µg/L	n/v	1.0 U	1.0 U
Methylene Chloride	µg/L	5** B	1.0 U	1.0 U
Naphthalene	µg/L	10 B	1.0 U	1.0 U
N-Butylbenzene	µg/L	5** B	1.0 U	1.0 U
N-Propylbenzene	µg/L	5** B	1.0 U	1.0 U
O-Xylene (1,2-Dimethylbenzene)	µg/L	5** B	1.0 U	1.0 U
Sec-Butylbenzene	µg/L	5** B	1.0 U	1.0 U
Styrene	µg/L	5** B	1.0 U	1.0 U
T-Butylbenzene	µg/L	5** B	1.0 U	1.0 U
Tert-Butyl Methyl Ether	µg/L	10 A	1.0 U	1.0 U
Tetrachloroethylene (PCE)	µg/L	5** B	1.0 U	1.0 U
Toluene	µg/L	5** B	1.0 U	1.0 U
Trans-1,2-Dichloroethene	µg/L	5** B	1.0 U	1.0 U
Trans-1,3-Dichloropropene	µg/L	0.4 p B	1.0 U	1.0 U
Trichloroethylene (TCE)	µg/L	5** B	**85 B**	1.0 U
Trichlorofluoromethane	µg/L	5** B	1.0 U	1.0 U
Vinyl Chloride	µg/L	2 B	1.0 U	1.0 U
Xylenes, Total	µg/L	n/v	2.0 U	2.0 U

Notes:

TOGS	NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
A	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
B	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
6.5 A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
b	Standard applies to the sum of all polychlorinated biphenyls.
p	Applies to the sum of cis- and trans-1,3-dichloropropene.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
TALBUFF	Test America Laboratires Inc., Buffalo, NY

APPENDIX A

Test Pit, Test Boring, and Monitoring Well Construction Logs

Stantec

Test Pit ID: TP-A

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	S. Dimarzo	**Start Time:**	7:05
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	7:45
Location:	Rochester, NY		excavator		
		Weather:	60s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, with boulders	Linear piece of steel at 4-6'
2	0.0					
3	0.0					
4	0.0				- FILL -	
5	0.0					
6	0.0			6.5		
7	0.0				Light brown fine to medium SAND AND SILT	
8	0.0			8.0		
9	0.0				Gray to light brown fine SAND, some silt	
10	0.0				- NATIVE SOIL -	
11					Bottom of pit at 10.5'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
22 x **6**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-B

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	7:50
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	8:15
Location:	Rochester, NY		excavator		
		Weather:	60s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, with boulders, some brick and asphalt, little cinders	Slight surface slope towards I-490
2	0.0					Scrap metal and other debris throughout
3	0.0					
4	0.9				- FILL -	
5	0.0			5.0		6" iron pipe ⊥ to trench ~33.5' from fence just above 5'
6	0.0				Finer material, lighter in color	
7	0.0				- FILL/NATIVE MIX -	
8	0.0					
9					Bottom of pit at 8.0'	
10						
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
24 x **4**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-C

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	8:25
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	8:40
Location:	Rochester, NY	**Weather:**	60s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, with cobbles, asphalt, and brick	Asphalt in top 1.5' sloping inward toward property
2	0.0					
3	0.0					
4	0.0	KU-TP-C-s	3.5		Tan from 3-4.5', then dark brown	
5	0.0				- FILL -	
6	0.0					
7	0.0			7.0		2" steel pipe parallel to thrench at 6'
8	0.0				Light brown SAND, some fine gravel	
9	0.0				- NATIVE -	
10	0.0					
11					Bottom of pit at 10.0'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
18 x **5**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-D

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	11:05
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	11:20
Location:	Rochester, NY	**Weather:**	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1				1.0	Crushed STONE	
2	0.0				Brown silty SAND AND GRAVEL, little rubble/concrete, with brick and scrap metal	
3	0.0					
4	0.0				- FILL -	
5	0.0					
6	0.0			5.5		
				6.0	Brown coarse SAND - NATIVE SOIL -	
7	0.0				Reddish brown tight coarse SAND AND GRAVEL, some silt and clay	
8	0.0					
9	0.0				- TILL -	
10	0.0					
11					Bottom of pit at 10.5'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
17 x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-E

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	10:30
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	10:45
Location:	Rochester, NY	**Weather:**	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1				1.0	Crushed STONE	
2	0.0				Brown silty SAND AND GRAVEL, few ash and cinders, brick, and wood fragments	
3	0.0					
4	0.0				- FILL -	
5	0.0	KU-TP-E-s	4.0		Ash and cinders lens 4.5-5.0'	
6	0.0					
7	0.0					
8	0.0			8.0		
9	0.0				Light brown to grayish fine to medium SAND, some silt, little fine to medium gravel	
10	0.0				- NATIVE SOIL -	
11					Bottom of pit at 10.0'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
14 x **4**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed; "basement" odor

Stantec

Test Pit ID: TP-F

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	9:55
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	10:20
Location:	Rochester, NY	**Weather:**	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1				1.0	Crushed STONE	
2	0.2				Brown SAND AND GRAVEL, some silt and fine gravel, few cobbles, brick, ash and cinders, and wood fragments	Large concrete blocks
3	0					
4	0				- FILL -	
5	0			5.0		
6	0				Concrete structure and metal pipes/conduit pieces	
7	0			7.0		Building C&D
8	0				Light brown fine to medium SAND, few gravel	
9	0				- NATIVE SOIL -	
10	0					
11					Bottom of pit at 10.0'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
20 x **4.5**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed; "basement" odor

Stantec

Test Pit ID: TP-G

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	9:00
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	9:30
Location:	Rochester, NY	**Weather:**	60s-70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1					Brown SILTY SAND, some gravel, cobbles, brick, wood, few metal pieces	Large concrete block at 4'
2	1.5-2.0					
3						
4	11.0-14.5					
5	8.0	KU-TP-G-s	3.5			
6						
7	14.0					
8						
9	2.0 - 3.0					
10				9.5	Gray sand - NATIVE SOIL -	
11					End of pit at 10.0'	
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
23 x **5**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-H

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	11:25
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	11:45
Location:	Rochester, NY		excavator		
		Weather:	80s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, some cobbles, ash and cinders, metal fragments, and brick, asphalt layering	Buried valve and large concrete blocks; foundation at 3.5'
2	0.0					
3	0.0					
4	0.0				- FILL -	
5	0.0					
6	0.0			6.0		
7	0.0				Light brown to gray SILTY SAND, little gravel	
8	0.0				- NATIVE SOIL -	
9	0.0					
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
10 x **3** ⊥ **15** x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed;

one leg of pit perpindular to I-490 (~10 ft long) with central perpindular extension parallell to I-490 (~15 ft long)

Stantec

Test Pit ID: TP-I

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	12:40
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	13:15
Location:	Rochester, NY	**Weather:**	80s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, some brick, little ash and cinders, glass, with asphalt shavings, cobbles, concrete pieces, and metal scraps/debris	
2	0.0					
3	0.0	KU-TP-I-s*	2.0			
4	0.5 1.5				- FILL -	
5	0.0					
6	0.0			6.0		Concrete footer at 5'
7	0.0				Light brown fine to medium SAND, some silt, little fine gravel	
8	0.0				- NATIVE SOIL -	
9	0.0				Grayish at 8.5'	
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A
3. *Sample not submitted for laboratory analysis.

TP Length & Width (ft):
17 x **3** ⊥ **16** x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

one leg of pit perpindular to I-490 (~17 ft long) with central perpindular extension parallell to I-490 (~16 ft long)

Stantec

Test Pit ID: TP-J

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	13:30
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	13:50
Location:	Rochester, NY		excavator		
		Weather:	80s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, with cobbles, brick, and little glass	
2	0.0					
3	0.0					
	0.0	KU-TP-J-s	2.5			
4	0.0				- FILL -	
5	0.0					
6	0.0			6.0		
7	0.0				Light brown fine to medium SAND, some silt, little fine to medium gravel	
8	0.0					
9	0.0				- NATIVE SOIL -	
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
17 x **4**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-K

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	14:00
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	14:10
Location:	Rochester, NY		excavator		
		Weather:	80s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Light brown silty GRAVEL, little fine to coarse sand, trace cobbles	
2	0.0			2.0		Roots to 1.5'
3	0.0				Dark gray CINDERS and fine to coarse SAND, trace ash, with pockets of brick	
4	0.0				- FILL -	
5	0.0			4.5	Brown silty fine to coarse SAND	
6	0.0					
7	0.0			7.0		
8	0.0				Light brown fine to medium SAND AND SILT	
9	0.0				- NATIVE SOIL -	
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
18 x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-L

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	14:20
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	14:35
Location:	Rochester, NY	**Weather:**	80s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, loittle coarse gravel, few cobbles	
2	0.0			2.0		
3	0.0	KU-TP-L-s	2.0		ASH AND CINDERS, some brown sand and brick	
4	0.0			4	- FILL -	
5	0.0				Brown silty SAND AND GRAVEL, few cobbles and coarse gravel	
6	0.0			6.0		
7	0.0				Light brown fine to medium SAND, some silt, little fine gra	
8	0.0				- NATIVE SOIL -	
9					Bottom of pit at 8.5'	
10						
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
17 x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-M

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	14:45
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	15:00
Location:	Rochester, NY		excavator		
		Weather:	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Light brown silty SAND AND GRAVEL, little ash and cinders, and asphalt, few cobbles, trace brick	
2	0.0				- FILL -	
3	0.0			3.0		
4	0.0				ASH, CINDERS, AND BRICK with brown silty sand and gravel	
5	0.0			4.5		
6	0.0				Brown silty SAND AND GRAVEL, little ash and cinders, and asphalt, few cobbles, trace brick	
7	0.0				- FILL -	
8	0.0					
9	0.0			8.5	Light brown silty f-m SAND, little m. gravel	- NATIVE SOIL -
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
14 x **3**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-N

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	15:05
Client:	Mark IV	**Equip Used:**	CAT322CL excavator	**Completed Time:**	15:15
Location:	Rochester, NY	**Weather:**	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0			0.5	Weathered ASPHALT	
2	0.0				Dark gray to black gravelly fine to coarse SAND, little silt, mixed asphalt, and gravel	
3	0.0					
	0.0	KU-TP-N-s	2.5			
4	0.0				- FILL -	
5	0.0					
6	0.0			6.0		
7	0.0				Light brown SAND	
8	0.0					
9	0.0				- NATIVE SOIL -	
10					Bottom of pit at 9.0'	
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
14 x **3.5**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

Stantec

Test Pit ID: TP-O

Project:	Karges & Uhlen Ph II	**Contractor:**	Mark IV	**Date:**	9/12/2016
Project #:	190500919	**Operator:**	C. Ross	**Start Time:**	15:30
Client:	Mark IV	**Equip Used:**	CAT322CL	**Completed Time:**	15:45
Location:	Rochester, NY		excavator		
		Weather:	70s, sunny		

0	PID (ppm)	Sample Info ID	Sample Info Depth	Strata Change (ft)	Soil & Stratigraphy Descriptions	Remarks
1	0.0				Brown silty SAND AND GRAVEL, some cobbles, few boulders, asphalt and brick, trace ash and cinders	Asphalt layers ~0.5' thick at 0.5' and 2.0', mixed with sand and gravel fill
2	0.0					
3	0.0					
4	0.0				- FILL -	
5	0.0					
6	0.0			5.5		
7	0.0				Light brown fine to medium SAND, little silt and fine gravel	
8	0.0				- NATIVE SOIL -	
9					Bottom of pit at 8.0'	
10						
11						
12						
13						
14						
15						

Notes:
1. PID Model Mini-Rae 3000 with 10.6 eV lamp.
2. Depth to water at completion: N/A

TP Length & Width (ft):
20 x **3.5**

Remarks (Unusal observations, caving characteristics, sheen or layers on water, odors, boulder count, etc.):

dry - no groundwater observed

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Test Boring No.: B-4
Page: 1 of 1

Project:	Karges & Uhlen Phase II ESA	Drill Contractor:	Nothnagle	Start Date:	9/26/2016
Project #:	190500919	Driller:	Thom M.	Completion Date:	9/26/2016
Client:	Mark IV Enterprises	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	Karges & Uhlen Place Rochester, NY	Weather:	70s, overcast	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	3.0	0	0.2	Brown TOPSOIL with roots, dry
	0.0					Brown fine to medium SAND, some fine to medium gravel, trace asphalt and coarse gravel, dry
					2.2	- FILL -
	0.0					Dark gray pulverized COBBLES, dry
	0.0				3.0	
				4		
	0.5	2	0.3			Brown fine to medium SAND, some fine to medium gravel, trace asphalt and coarse gravel, dry
5						
				8		
	0.8	3	3.3			Brown fine SAND, little fine to medium gravel, few clay, trace black staining, dry
					8.7	
	0.1					Gray fine SAND with pulverized cobbles, dry
10					9.7	
	0.0					Brown fine SAND, little fine to medium gravel, few clay, dry
						- NATIVE SOIL -
	0.0					
				12		
	0.9	4	3.1			
	0.3					Gray, 13.3-13.5'
					13.7	Reddish brown fine SAND AND SILT, little clay, few coarse gravel, tight, dry
	0.0					
15						
	0.0					Moist at 15.1'
				16		
	0.5	5	2.2			Gray fine SAND, little fine to medium gravel, few clay, dry
	0.4					
					▼	Wet at 17.9'
	0.3					
20				20		
						End boring at 20'

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B-7
Page: 1 of 1

Project:	Karges & Uhlen Phase II ESA	Drill Contractor:	Nothnagle	Start Date:	9/26/2016
Project #:	190500919	Driller:	Thom M.	Completion Date:	9/26/2016
Client:	Mark IV Enterprises	Elevation:	NM	Drilling Method:	HSA with Macrocore
Location:	Karges & Uhlen Place Rochester, NY	Weather:	50s, partly cloudy	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
		1	3.2	0	0.3	Brown TOPSOIL with roots, dry
	0.0					Light brown fine to medium SAND, some fine to coarse gravel, little dark brown medium sand and brick, dry
	0.0					
					2.6	- FILL -
	0.0				2.7	ASH, dry
	0.0					ASH, CINDERS, AND BRICK, with brown coarse sand, trace glass, dry
				4		
		2	2.7		4.2	Light gray COBBLE fragments, dry
5	0.0				5.1	Gray fine to medium SAND, intermittent orange staining, dry
	0.0					Same, with trace fine gravel, no orange discoloration
					6.7	
	0.0					No recovery
				8		
		3	1.1			Brown fine SAND AND SILT, little medium to coarse gravel, few clay, moist
						- NATIVE SOIL -
10				10		
	0.0	4	2.3			Same, with some fine to coarse gravel, moist
					11.0	
	0.0					Gray fine to medium SAND, little medium gravel, few coarse gravel, moist
	0.0					
				14	▼	
	0.0	5	0.7			Wet at 14'
15						
				16		
						Refusal [TOR] at 16'
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B-8
Page: 1 of 1

Project:	Karges & Uhlen Phase II ESA	Drill Contractor:	Nothnagle	Start Date:	9/26/2016
Project #:	190500919	Driller:	Thom M.	Completion Date:	9/26/2016
Client:	Mark IV Enterprises	Elevation:	NM	Drilling Method:	HSA with Macrocore
Location:	Karges & Uhlen Place Rochester, NY	Weather:	50s, partly cloudy	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	1.5	0	0.2	Brown TOPSOIL with roots, dry
	0.0					Brown fine to medium SAND, some silt and fine to medium gravel, little gray cobble fragments, trace brick and glass, dry
	0.0					
				2.3		- FILL -
						No sample collection (refusal at 2.3'; augered through to 4')
				4		
	0.0	2	2.5		4.5	Same as 0.2'
5						Gray fine to medium SAND, trace medium to coarse gravel, intermittent orange staining, dry
	0.0					
						- NATIVE SOIL -
	0.0					
	0.0			7.6		
				8.0		No sample collection (refusal at 7.6'; augered through to 8')
	0.3	3	0.6	8.5		Same as 4.5', with pulverized gray cobbles
						No sample collection (refusal at 8.5'; augered through to 10')
10				10	10.0	
	0.5	4	2.8			Reddish gray pulverized COBBLES with light brownish gray medium sand
					11.1	
	0.0				11.5	Brown medium to coarse SAND, dry
						Brown fine SAND AND SILT, few medium gravel, trace clay, moist
	0.0					
	0.0					
				14	▼	
	0.0	5	1.8			Gray fine to medium SAND, little fine to medium gravel, wet
15						
	0.0					
	0.0					
				17		
						Refusal [TOR] at 17'
20						

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B-9
Page: 1 of 1

Project:	Karges & Uhlen Phase II ESA	Drill Contractor:	Nothnagle	Start Date:	9/27/2016
Project #:	190500919	Driller:	Thom M.	Completion Date:	9/27/2016
Client:	Mark IV Enterprises	Elevation:	NM	Drilling Method:	HSA with Macrocore
Location:	Karges & Uhlen Place Rochester, NY	Weather:	50s, partly sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
	0.0	1	2.0	0		Brown fine to medium SAND, some fine gravel, little medium to coarse gravel, dry
	0.0					Pulverized gray COBBLES at 1.5' and 2.0'
	0.0					
	0.0			2.3		- FILL -
						No sample collection (refusal at 2.3'; augered through to 4')
				4		
	0.0	2	3.4			Same as 0.0-2.3'
5					5.0	
	0.1					Light brown fine to medium SAND, little clay, intermittent orange staining, dry
	0.9					
	1.5					- NATIVE SOIL -
	0.9			8		
		3	0.0			No recovery (apparent slough in sleeve)
10				10	10.0	
	0.9	4	0.7			Brown fine SAND AND SILT, little clay, trace fine gravel, moist
	0.7					
				12		
						No sample collection (refusal at 12'; augered through to 14')
				14	14.0	
	0.0	5	1.5			Grayish brown fine to medium SAND, some silt and clay, little fine to coarse gravel,
15	0.5				▼	moist; wet at 15.2'
	0.9					
		6	0.3	18		
	0.0					Same
20				20		
		7	0.0	20.5		
						Refusal [TOR] at 20.5'

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

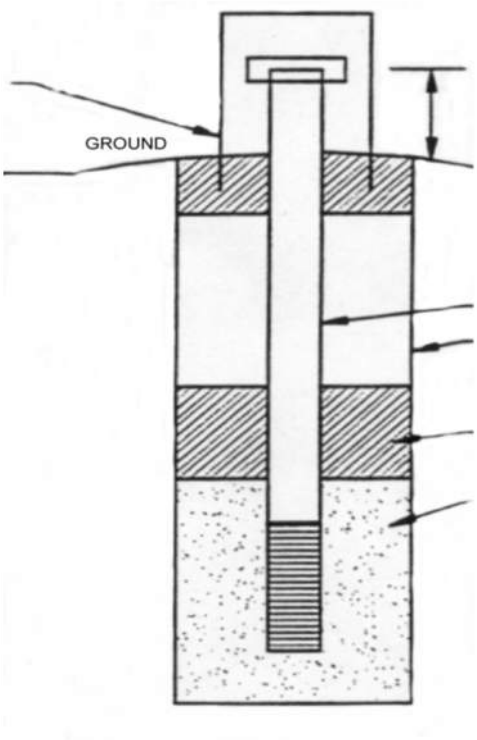
OVERBURDEN MONITORING WELL

DESIGN DETAILS

PROJECT NAME	Karges & Uhlen Phase II ESA	HOLE DESIGNATION	**B/MW-7**
PROJECT NUMBER	190500919	DATE COMPLETED	9/26/2016
CLIENT	Mark IV Enterprises	DRILLING METHOD	Hollow Stem Auger
LOCATION	Karges & Uhlen Place Rochester, NY	SUPERVISOR	Laura Best

CAP TYPE **J-plug**

PROTECTIVE CASING



STICK-UP **0.7** ft

SURFACE SEAL TYPE **N/A**

TOP OF SEAL* AT **1.5** ft

BOTTOM OF SEAL* AT **4.0** ft

TOP OF SCREEN* AT **6.0** ft

BOTTOM OF SCREEN* AT **16.0** ft

BOTTOM OF HOLE* AT **16.0** ft

WELL CASING ANNULUS BACKFILL TYPE: **Soil Cuttings**

SEAL TYPE: **Bentonite**

PACK TYPE: **#00N sand**

- SAND, SIZE

* NOTE:
ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT **X** PERFORATED _____ LOUVRE _____ OTHER _____

SCREEN MATERIAL: STAINLESS STEEL _____ PVC **X** OTHER _____

SCREEN LENGTH: **10** ft SCREEN DIAMETER: **2** in SCREEN SLOT SIZE: **0.010**

WELL RISER MATERIAL: **PVC** WELL RISER DIAMETER: **2** in

HOLE DIAMETER: **8** in
AUGER DIAMATER **4.25** in (inner diameter)

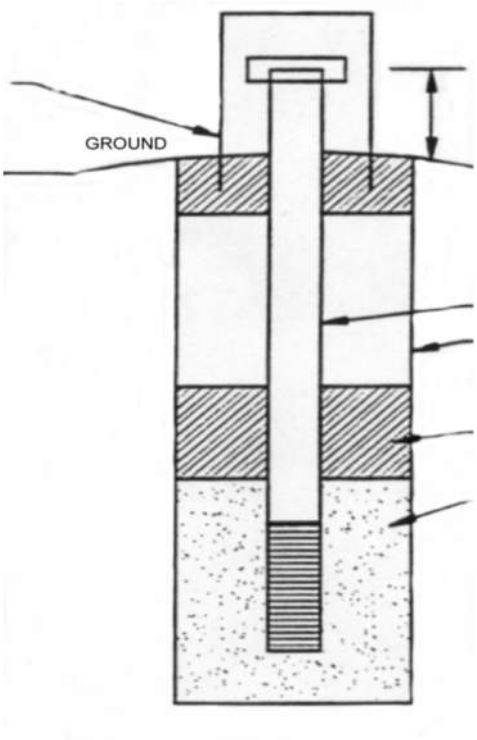
OVERBURDEN MONITORING WELL

DESIGN DETAILS

PROJECT NAME	Karges & Uhlen Phase II ESA	HOLE DESIGNATION	**B/MW-8**
PROJECT NUMBER	190500919	DATE COMPLETED	9/26/2016
CLIENT	Mark IV Enterprises	DRILLING METHOD	Hollow Stem Auger
LOCATION	Karges & Uhlen Place Rochester, NY	SUPERVISOR	Laura Best

CAP TYPE **J-plug**

PROTECTIVE CASING



STICK-UP **0.7** ft

SURFACE SEAL TYPE **N/A**

TOP OF SEAL* AT **2.5** ft

BOTTOM OF SEAL* AT **5.0** ft

TOP OF SCREEN* AT **7.0** ft

BOTTOM OF SCREEN* AT **17.0** ft

BOTTOM OF HOLE* AT **17.0** ft

WELL CASING ANNULUS BACKFILL

TYPE: **Soil Cuttings**

SEAL TYPE: **Bentonite**

PACK TYPE: **#00N sand**

- SAND, SIZE

* NOTE:
ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT **X** PERFORATED _____ LOUVRE _____ OTHER _____

SCREEN MATERIAL: STAINLESS STEEL _____ PVC **X** OTHER _____

SCREEN LENGTH: **10** ft SCREEN DIAMETER: **2** in SCREEN SLOT SIZE: **0.010**

WELL RISER MATERIAL: **PVC** WELL RISER DIAMETER: **2** in

HOLE DIAMETER: **8** in
AUGER DIAMATER **4.25** in (inner diameter)

Stantec

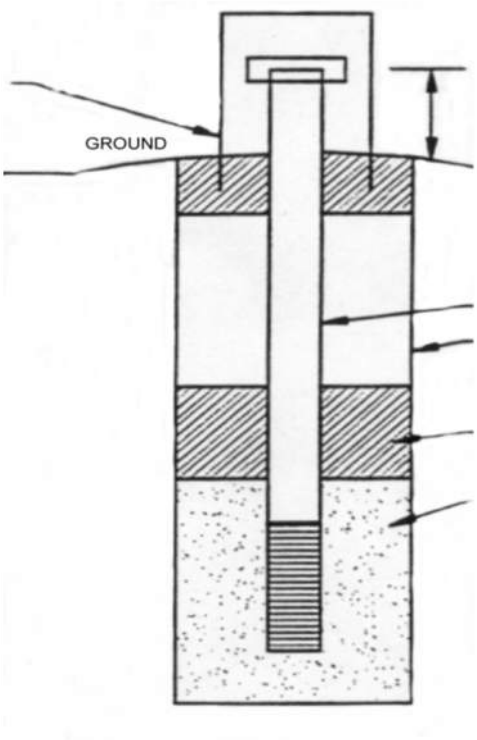
OVERBURDEN MONITORING WELL

DESIGN DETAILS

PROJECT NAME	Karges & Uhlen Phase II ESA	HOLE DESIGNATION	**B/MW-9**
PROJECT NUMBER	190500919	DATE COMPLETED	9/27/2016
CLIENT	Mark IV Enterprises	DRILLING METHOD	Hollow Stem Auger
LOCATION	Karges & Uhlen Place Rochester, NY	SUPERVISOR	Laura Best

CAP TYPE **J-plug**

PROTECTIVE CASING



STICK-UP **0.2** ft

SURFACE SEAL TYPE **N/A**

TOP OF SEAL* AT **5.0** ft

BOTTOM OF SEAL* AT **8.3** ft

TOP OF SCREEN* AT **10.3** ft

BOTTOM OF SCREEN* AT **20.3** ft

BOTTOM OF HOLE* AT **20.3** ft

WELL CASING ANNULUS BACKFILL

TYPE: **Soil Cuttings**

SEAL TYPE: **Bentonite**

PACK TYPE: **#00N sand**

- SAND, SIZE

* NOTE:
ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT **X** PERFORATED _____ LOUVRE _____ OTHER _____

SCREEN MATERIAL: STAINLESS STEEL _____ PVC **X** OTHER _____

SCREEN LENGTH: **10** ft SCREEN DIAMETER: **2** in SCREEN SLOT SIZE: **0.010**

WELL RISER MATERIAL: **PVC** WELL RISER DIAMETER: **2** in

HOLE DIAMETER: **8** in
AUGER DIAMATER **4.25** in (inner diameter)

APPENDIX B
Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-105899-1
Client Project/Site: Karges & Uhlen Phase II - Soils
Revision: 1

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, New York 14614

Attn: Ms. Stephanie Reynolds-Smith

Denise L Giglia

Authorized for release by:
9/23/2016 11:30:03 AM
Denise Giglia, Project Management Assistant II
denise.giglia@testamericainc.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
ryan.vandette@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-105899-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-105899-1

Revised Report
This report was revised to remove duplicate analytes from sample KU-TP-G-S (480-105899-3).

Comments
No additional comments.

Receipt
The samples were received on 9/14/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) for preparation batch 480-320370 and analytical batch 480-320367 recovered outside control limits for the following analyte: Dibromochloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: Some reported analyte concentrations in the following samples are below 200 ug/kg and may be biased low due to the samples not being collected according to 5035-L/5035A-L low-level specifications: KU-TP-C-S (480-105899-1), KU-TP-E-S (480-105899-2), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4), KU-TP-L-S (480-105899-5), KU-TP-N-S (480-105899-6), (480-105899-D-6-B MS) and (480-105899-D-6-C MSD).

Method(s) 8260C: The analyte Methylene Chloride was detected in the Method Blank at a level above the project established reporting limit. The associated samples had levels of Methylene Chloride less than ten times that of the Method Blank value. All sample results for Methylene Chloride may potentially be due to laboratory contamination and should be evaluated accordingly. All associated positive sample results were qualified with a "B". The following samples are impacted: KU-TP-E-S (480-105899-2), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4), KU-TP-L-S (480-105899-5) and KU-TP-N-S (480-105899-6).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-321585 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following sample is impacted: KU-TP-G-S (480-105899-3).

Method(s) 8260C: The following sample was analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: KU-TP-G-S (480-105899-3). 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.

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-320667 recovered outside acceptance criteria, low biased, for bis (2-chloroisopropyl) ether and Bis(2-chloroethyl)ether. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-320667 recovered above the upper control limit for Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: KU-TP-C-S (480-105899-1), KU-TP-E-S (480-105899-2), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4), KU-TP-L-S (480-105899-5) and KU-TP-N-S (480-105899-6).

Method(s) 8270D: The following samples were diluted due to appearance and viscosity: KU-TP-C-S (480-105899-1), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4), KU-TP-L-S (480-105899-5), (480-105899-A-1-B MS) and (480-105899-A-1-C MSD). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following samples were diluted due to appearance and viscosity: KU-TP-N-S (480-105899-6). As such, surrogate recoveries are below the calibration range, and 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.

Job ID: 480-105899-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

GC Semi VOA
Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples KU-TP-L-S (480-105899-5) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method(s) 8081B: The following samples was diluted due to the nature of the sample matrix: KU-TP-L-S (480-105899-5). Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: KU-TP-C-S (480-105899-1), KU-TP-E-S (480-105899-2), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4) and KU-TP-N-S (480-105899-6). As such, surrogate recoveries are below the calibration range,estimated and not representative. 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
Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: KU-TP-C-S (480-105899-1), KU-TP-E-S (480-105899-2), KU-TP-G-S (480-105899-3), KU-TP-J-S (480-105899-4), KU-TP-L-S (480-105899-5) and KU-TP-N-S (480-105899-6).

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

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Client Sample ID: KU-TP-C-S — Lab Sample ID: 480-105899-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.81	J	5.2	0.70	ug/Kg	1	☼	8260C	Total/NA
Anthracene	260	J	880	220	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	880		880	88	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	970		880	130	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1200		880	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	750	J	880	93	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	410	J	880	110	ug/Kg	5	☼	8270D	Total/NA
Butyl benzyl phthalate	370	J	880	150	ug/Kg	5	☼	8270D	Total/NA
Chrysene	1100		880	200	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	2000		880	93	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	640	J	880	110	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1100		880	130	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1600		880	100	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDD	8.0	J	8.8	1.7	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDE	7.7	J	8.8	1.8	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDT	11		8.8	2.0	ug/Kg	5	☼	8081B	Total/NA
gamma-BHC (Lindane)	2.4	J	8.8	1.6	ug/Kg	5	☼	8081B	Total/NA
Methoxychlor	2.9	J	8.8	1.8	ug/Kg	5	☼	8081B	Total/NA
Arsenic	3.7		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	59.9	F1	0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.41		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.6		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	99.2	F1 F2	1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.24	J	0.66	0.22	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.093		0.020	0.0082	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-TP-E-S — Lab Sample ID: 480-105899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.6	J B	5.4	2.5	ug/Kg	1	☼	8260C	Total/NA
Acenaphthylene	49	J	190	25	ug/Kg	1	☼	8270D	Total/NA
Anthracene	65	J	190	47	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	320		190	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	340		190	28	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	390		190	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	260		190	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	160	J	190	25	ug/Kg	1	☼	8270D	Total/NA
Carbazole	23	J	190	23	ug/Kg	1	☼	8270D	Total/NA
Chrysene	350		190	43	ug/Kg	1	☼	8270D	Total/NA
Di-n-butyl phthalate	630		190	33	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	640		190	20	ug/Kg	1	☼	8270D	Total/NA
Fluorene	24	J	190	23	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	230		190	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	290		190	28	ug/Kg	1	☼	8270D	Total/NA
Pyrene	560		190	23	ug/Kg	1	☼	8270D	Total/NA
4,4'-DDD	31		9.3	1.8	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDE	81		9.3	2.0	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDT	170		9.3	2.2	ug/Kg	5	☼	8081B	Total/NA
Dieldrin	24		9.3	2.2	ug/Kg	5	☼	8081B	Total/NA
Methoxychlor	2.8	J	9.3	1.9	ug/Kg	5	☼	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Client Sample ID: KU-TP-E-S (Continued) — Lab Sample ID: 480-105899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.3		2.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	84.8		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.38		0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.0		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	236		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.17		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-TP-G-S — Lab Sample ID: 480-105899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.36	J B	5.6	0.34	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	17		5.6	0.71	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	7.6	B	5.6	2.6	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	0.70	J	5.6	0.57	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene - DL	13000		220	62	ug/Kg	2	☼	8260C	Total/NA
Acenaphthylene	270	J	940	120	ug/Kg	5	☼	8270D	Total/NA
Anthracene	320	J	940	230	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	1300		940	94	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	1800		940	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2200		940	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1700		940	99	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	670	J	940	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	1500		940	210	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	2200		940	99	ug/Kg	5	☼	8270D	Total/NA
Fluorene	110	J	940	110	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1400		940	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1100		940	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	2200		940	110	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDE	3.9	J	18	3.8	ug/Kg	10	☼	8081B	Total/NA
Methoxychlor	6.9	J	18	3.7	ug/Kg	10	☼	8081B	Total/NA
Arsenic	4.4		2.3	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	57.5		0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.19	J	0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Chromium	9.9		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	73.3		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.17		0.022	0.0087	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-TP-J-S — Lab Sample ID: 480-105899-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	7.9	B	5.5	2.5	ug/Kg	1	☼	8260C	Total/NA
Acenaphthene	220	J	930	140	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	450	J	930	120	ug/Kg	5	☼	8270D	Total/NA
Anthracene	770	J	930	230	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2300		930	93	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2300		930	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	3200		930	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1900		930	99	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100		930	120	ug/Kg	5	☼	8270D	Total/NA
Carbazole	390	J	930	110	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: KU-TP-J-S (Continued) — Lab Sample ID: 480-105899-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	2700		930	210	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	280	J	930	110	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5700		930	99	ug/Kg	5	☼	8270D	Total/NA
Fluorene	330	J	930	110	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1700		930	120	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	270	J	930	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	4200		930	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	4600		930	110	ug/Kg	5	☼	8270D	Total/NA
Methoxychlor	7.0	J	18	3.7	ug/Kg	10	☼	8081B	Total/NA
Arsenic	4.9		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	119		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.28		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Chromium	14.7		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Lead	86.3		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.23		0.021	0.0084	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-TP-L-S — Lab Sample ID: 480-105899-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.33	J B	5.2	0.32	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	7.5	B	5.2	2.4	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	310	J	870	87	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	390	J	870	130	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	610	J K	870	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	340	J	870	92	ug/Kg	5	☼	8270D	Total/NA
Chrysene	390	J	870	190	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	580	J	870	92	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	290	J	870	110	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	310	J	870	130	ug/Kg	5	☼	8270D	Total/NA
Pyrene	530	J	870	100	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDE	8.0		3.5	0.73	ug/Kg	2	☼	8081B	Total/NA
4,4'-DDT	13		3.5	0.81	ug/Kg	2	☼	8081B	Total/NA
Methoxychlor	1.3	J	3.5	0.71	ug/Kg	2	☼	8081B	Total/NA
Arsenic	5.5		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	140		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.53		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	16.3		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	121		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Silver	0.75		0.66	0.22	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.15		0.020	0.0082	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-TP-N-S — Lab Sample ID: 480-105899-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	33	F1	28	2.1	ug/Kg	1	☼	8260C	Total/NA
Acetone	190	F1	28	4.7	ug/Kg	1	☼	8260C	Total/NA
Chloroform	0.43	J B	5.6	0.35	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	11	B	5.6	2.6	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	2400	J	3800	380	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	2200	J	3800	560	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: KU-TP-N-S (Continued)

Lab Sample ID: 480-105899-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	2900	J	3800	600	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1800	J	3800	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	580	J	3800	490	ug/Kg	20	☼	8270D	Total/NA
Chrysene	2600	J	3800	850	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	6200		3800	400	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1500	J	3800	470	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	3300	J	3800	560	ug/Kg	20	☼	8270D	Total/NA
Pyrene	4200		3800	450	ug/Kg	20	☼	8270D	Total/NA
4,4'-DDD	110		37	7.1	ug/Kg	20	☼	8081B	Total/NA
4,4'-DDE	62		37	7.7	ug/Kg	20	☼	8081B	Total/NA
4,4'-DDT	170		37	8.6	ug/Kg	20	☼	8081B	Total/NA
Methoxychlor	8.7	J	37	7.5	ug/Kg	20	☼	8081B	Total/NA
Arsenic	4.8		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	96.0		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.46		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.9		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	158		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.18		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid
Percent Solids: 94.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2,4-Trimethylbenzene	ND		5.2	1.0	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,3,5-Trimethylbenzene	ND		5.2	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
4-Isopropyltoluene	ND		5.2	0.42	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Acetone	ND		26	4.4	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Benzene	ND		5.2	0.26	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Dibromochloromethane	ND	*	5.2	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Chloromethane	ND		5.2	0.32	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Methyl tert-butyl ether	ND		5.2	0.52	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Methylcyclohexane	ND		5.2	0.80	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
m,p-Xylene	ND		10	0.88	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Naphthalene	ND		5.2	0.70	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
n-Butylbenzene	ND		5.2	0.46	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
N-Propylbenzene	ND		5.2	0.42	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
o-Xylene	ND		5.2	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
sec-Butylbenzene	ND		5.2	0.46	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Tetrachloroethene	**0.81**	**J**	5.2	0.70	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Toluene	ND		5.2	0.40	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid
Percent Solids: 94.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Trichloroethene	ND		5.2	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Trichlorofluoromethane	ND		5.2	0.50	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Vinyl chloride	ND		5.2	0.64	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
cis-1,3-Dichloropropene	ND		5.2	0.76	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
Styrene	ND		5.2	0.26	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1
tert-Butylbenzene	ND		5.2	0.55	ug/Kg	☼	09/14/16 21:00	09/15/16 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*	*09/14/16 21:00*	*09/15/16 05:44*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/14/16 21:00*	*09/15/16 05:44*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*09/14/16 21:00*	*09/15/16 05:44*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/14/16 21:00*	*09/15/16 05:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
bis (2-chloroisopropyl) ether	ND	F1	880	180	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4,5-Trichlorophenol	ND		880	240	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4,6-Trichlorophenol	ND		880	180	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4-Dichlorophenol	ND		880	93	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4-Dimethylphenol	ND		880	210	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4-Dinitrophenol	ND		8600	4100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,4-Dinitrotoluene	ND		880	180	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2,6-Dinitrotoluene	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Chloronaphthalene	ND		880	150	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Chlorophenol	ND		880	160	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Methylnaphthalene	ND		880	180	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Methylphenol	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Nitroaniline	ND		1700	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
2-Nitrophenol	ND		880	250	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
3,3'-Dichlorobenzidine	ND		1700	1000	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
3-Nitroaniline	ND		1700	240	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4,6-Dinitro-2-methylphenol	ND		1700	880	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Bromophenyl phenyl ether	ND		880	120	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Chloro-3-methylphenol	ND		880	220	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Chloroaniline	ND		880	220	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Chlorophenyl phenyl ether	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Methylphenol	ND		1700	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Nitroaniline	ND		1700	460	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
4-Nitrophenol	ND		1700	620	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Acenaphthene	ND		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Acenaphthylene	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Acetophenone	ND		880	120	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Anthracene	**260**	**J**	880	220	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Atrazine	ND		880	310	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzaldehyde	ND		880	700	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzo[a]anthracene	**880**		880	88	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid
Percent Solids: 94.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	**970**		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzo[b]fluoranthene	**1200**		880	140	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzo[g,h,i]perylene	**750**	**J**	880	93	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzo[k]fluoranthene	**410**	**J**	880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Bis(2-chloroethoxy)methane	ND		880	190	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Bis(2-chloroethyl)ether	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Bis(2-ethylhexyl) phthalate	ND		880	300	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Butyl benzyl phthalate	**370**	**J**	880	150	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Caprolactam	ND		880	260	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Carbazole	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Chrysene	**1100**		880	200	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Di-n-butyl phthalate	ND		880	150	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Di-n-octyl phthalate	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Dibenz(a,h)anthracene	ND		880	160	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Dibenzofuran	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Diethyl phthalate	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Dimethyl phthalate	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Fluoranthene	**2000**		880	93	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Fluorene	ND		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Hexachlorobenzene	ND		880	120	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Hexachlorobutadiene	ND		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Hexachlorocyclopentadiene	ND		880	120	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Hexachloroethane	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Indeno[1,2,3-cd]pyrene	**640**	**J**	880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Isophorone	ND		880	190	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
N-Nitrosodi-n-propylamine	ND		880	150	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
N-Nitrosodiphenylamine	ND		880	720	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Naphthalene	ND		880	110	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Nitrobenzene	ND		880	98	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Pentachlorophenol	ND		1700	880	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Phenanthrene	**1100**		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Phenol	ND		880	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Pyrene	**1600**		880	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5
Benzyl alcohol	ND		1700	120	ug/Kg	☼	09/15/16 07:08	09/16/16 15:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*114*		*39 - 146*	*09/15/16 07:08*	*09/16/16 15:18*	*5*
2-Fluorobiphenyl	*89*		*37 - 120*	*09/15/16 07:08*	*09/16/16 15:18*	*5*
2-Fluorophenol	*75*		*18 - 120*	*09/15/16 07:08*	*09/16/16 15:18*	*5*
Nitrobenzene-d5	*72*		*34 - 132*	*09/15/16 07:08*	*09/16/16 15:18*	*5*
p-Terphenyl-d14	*90*		*65 - 153*	*09/15/16 07:08*	*09/16/16 15:18*	*5*
Phenol-d5	*74*		*11 - 120*	*09/15/16 07:08*	*09/16/16 15:18*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**8.0**	**J**	8.8	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
4,4'-DDE	**7.7**	**J**	8.8	1.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
4,4'-DDT	**11**		8.8	2.0	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Aldrin	ND		8.8	2.1	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
alpha-BHC	ND		8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid
Percent Solids: 94.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	ND		8.8	4.4	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
beta-BHC	ND		8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
delta-BHC	ND		8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Dieldrin	ND		8.8	2.1	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endosulfan I	ND		8.8	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endosulfan II	ND		8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endosulfan sulfate	ND		8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endrin	ND		8.8	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endrin aldehyde	ND		8.8	2.2	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Endrin ketone	ND		8.8	2.1	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
gamma-BHC (Lindane)	**2.4**	**J**	8.8	1.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
gamma-Chlordane	ND		8.8	2.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Heptachlor	ND		8.8	1.9	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Heptachlor epoxide	ND		8.8	2.3	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Methoxychlor	**2.9**	**J**	8.8	1.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5
Toxaphene	ND		88	51	ug/Kg	☼	09/15/16 06:36	09/21/16 13:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*88*		*45 - 120*	*09/15/16 06:36*	*09/21/16 13:39*	*5*
Tetrachloro-m-xylene	*72*		*30 - 124*	*09/15/16 06:36*	*09/21/16 13:39*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.044	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1221	ND		0.22	0.044	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1232	ND		0.22	0.044	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1242	ND		0.22	0.044	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1248	ND		0.22	0.044	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1254	ND		0.22	0.10	mg/Kg		09/15/16 07:21	09/15/16 18:29	1
PCB-1260	ND		0.22	0.10	mg/Kg		09/15/16 07:21	09/15/16 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*134*		*60 - 154*	*09/15/16 07:21*	*09/15/16 18:29*	*1*
DCB Decachlorobiphenyl	*136*		*65 - 174*	*09/15/16 07:21*	*09/15/16 18:29*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.7**		2.2	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Barium	**59.9**	**F1**	0.55	0.12	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Cadmium	**0.41**		0.22	0.033	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Chromium	**11.6**		0.55	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Lead	**99.2**	**F1 F2**	1.1	0.26	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Selenium	ND		4.4	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1
Silver	**0.24**	**J**	0.66	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 13:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.093**		0.020	0.0082	mg/Kg	☼	09/15/16 09:45	09/16/16 08:53	1

Client Sample ID: KU-TP-C-S

Lab Sample ID: 480-105899-1
Date Collected: 09/12/16 08:45
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 94.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.98	0.47	mg/Kg	☼	09/15/16 12:00	09/16/16 15:09	1

Client Sample ID: KU-TP-E-S

Lab Sample ID: 480-105899-2
Date Collected: 09/12/16 10:55
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.4	0.39	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,1,2,2-Tetrachloroethane	ND		5.4	0.88	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,1,2-Trichloroethane	ND		5.4	0.70	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,1-Dichloroethane	ND		5.4	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,1-Dichloroethene	ND		5.4	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2,4-Trimethylbenzene	ND		5.4	1.0	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2-Dibromo-3-Chloropropane	ND		5.4	2.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2-Dichlorobenzene	ND		5.4	0.42	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2-Dichloroethane	ND		5.4	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2-Dichloropropane	ND		5.4	2.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,3,5-Trimethylbenzene	ND		5.4	0.35	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,3-Dichlorobenzene	ND		5.4	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,4-Dichlorobenzene	ND		5.4	0.76	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
2-Butanone (MEK)	ND		27	2.0	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
2-Hexanone	ND		27	2.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
4-Isopropyltoluene	ND		5.4	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
4-Methyl-2-pentanone (MIBK)	ND		27	1.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Acetone	ND		27	4.6	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Benzene	ND		5.4	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Bromoform	ND		5.4	2.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Bromomethane	ND		5.4	0.49	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Carbon disulfide	ND		5.4	2.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Carbon tetrachloride	ND		5.4	0.52	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Chlorobenzene	ND		5.4	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Dibromochloromethane	ND	*	5.4	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Chloroethane	ND		5.4	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Chloroform	ND		5.4	0.33	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Chloromethane	ND		5.4	0.33	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
cis-1,2-Dichloroethene	ND		5.4	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Cyclohexane	ND		5.4	0.76	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Bromodichloromethane	ND		5.4	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Dichlorodifluoromethane	ND		5.4	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Ethylbenzene	ND		5.4	0.37	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
1,2-Dibromoethane	ND		5.4	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Isopropylbenzene	ND		5.4	0.82	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Methyl acetate	ND		27	3.3	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Methyl tert-butyl ether	ND		5.4	0.53	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Methylcyclohexane	ND		5.4	0.82	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Methylene Chloride	**4.6**	**J B**	5.4	2.5	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
m,p-Xylene	ND		11	0.91	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1

Client Sample ID: KU-TP-E-S
Date Collected: 09/12/16 10:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-2
Matrix: Solid
Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.4	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
n-Butylbenzene	ND		5.4	0.47	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
N-Propylbenzene	ND		5.4	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
o-Xylene	ND		5.4	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
sec-Butylbenzene	ND		5.4	0.47	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Tetrachloroethene	ND		5.4	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Toluene	ND		5.4	0.41	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
trans-1,2-Dichloroethene	ND		5.4	0.56	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Trichloroethene	ND		5.4	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Trichlorofluoromethane	ND		5.4	0.51	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Vinyl chloride	ND		5.4	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Xylenes, Total	ND		11	0.91	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
cis-1,3-Dichloropropene	ND		5.4	0.78	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
Styrene	ND		5.4	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1
tert-Butylbenzene	ND		5.4	0.56	ug/Kg	☼	09/14/16 21:00	09/15/16 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*	*09/14/16 21:00*	*09/15/16 06:09*	*1*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*	*09/14/16 21:00*	*09/15/16 06:09*	*1*
Toluene-d8 (Surr)	*105*		*71 - 125*	*09/14/16 21:00*	*09/15/16 06:09*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*09/14/16 21:00*	*09/15/16 06:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		190	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
bis (2-chloroisopropyl) ether	ND		190	38	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4,5-Trichlorophenol	ND		190	52	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4,6-Trichlorophenol	ND		190	38	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4-Dichlorophenol	ND		190	20	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4-Dimethylphenol	ND		190	46	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4-Dinitrophenol	ND		1900	880	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,4-Dinitrotoluene	ND		190	39	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2,6-Dinitrotoluene	ND		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Chloronaphthalene	ND		190	32	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Chlorophenol	ND		190	35	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Methylnaphthalene	ND		190	38	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Methylphenol	ND		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Nitroaniline	ND		370	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
2-Nitrophenol	ND		190	54	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
3,3'-Dichlorobenzidine	ND		370	230	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
3-Nitroaniline	ND		370	53	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4,6-Dinitro-2-methylphenol	ND		370	190	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Bromophenyl phenyl ether	ND		190	27	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Chloro-3-methylphenol	ND		190	47	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Chloroaniline	ND		190	47	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Chlorophenyl phenyl ether	ND		190	24	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Methylphenol	ND		370	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Nitroaniline	ND		370	100	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
4-Nitrophenol	ND		370	130	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1

Client Sample ID: KU-TP-E-S
Date Collected: 09/12/16 10:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-2
Matrix: Solid
Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		190	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Acenaphthylene	**49**	**J**	190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Acetophenone	ND		190	26	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Anthracene	**65**	**J**	190	47	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Atrazine	ND		190	67	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzaldehyde	ND		190	150	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzo[a]anthracene	**320**		190	19	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzo[a]pyrene	**340**		190	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzo[b]fluoranthene	**390**		190	30	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzo[g,h,i]perylene	**260**		190	20	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzo[k]fluoranthene	**160**	**J**	190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Bis(2-chloroethoxy)methane	ND		190	41	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Bis(2-chloroethyl)ether	ND		190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Bis(2-ethylhexyl) phthalate	ND		190	65	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Butyl benzyl phthalate	ND		190	32	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Caprolactam	ND		190	58	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Carbazole	**23**	**J**	190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Chrysene	**350**		190	43	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Di-n-butyl phthalate	**630**		190	33	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Di-n-octyl phthalate	ND		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Dibenz(a,h)anthracene	ND		190	34	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Dibenzofuran	ND		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Diethyl phthalate	ND		190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Dimethyl phthalate	ND		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Fluoranthene	**640**		190	20	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Fluorene	**24**	**J**	190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Hexachlorobenzene	ND		190	26	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Hexachlorobutadiene	ND		190	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Hexachlorocyclopentadiene	ND		190	26	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Hexachloroethane	ND		190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Indeno[1,2,3-cd]pyrene	**230**		190	24	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Isophorone	ND		190	41	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
N-Nitrosodi-n-propylamine	ND		190	33	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
N-Nitrosodiphenylamine	ND		190	160	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Naphthalene	ND		190	25	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Nitrobenzene	ND		190	21	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Pentachlorophenol	ND		370	190	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Phenanthrene	**290**		190	28	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Phenol	ND		190	29	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Pyrene	**560**		190	23	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1
Benzyl alcohol	ND		370	26	ug/Kg	☼	09/15/16 07:08	09/16/16 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*115*		*39 - 146*	*09/15/16 07:08*	*09/16/16 15:44*	*1*
2-Fluorobiphenyl	*94*		*37 - 120*	*09/15/16 07:08*	*09/16/16 15:44*	*1*
2-Fluorophenol	*76*		*18 - 120*	*09/15/16 07:08*	*09/16/16 15:44*	*1*
Nitrobenzene-d5	*79*		*34 - 132*	*09/15/16 07:08*	*09/16/16 15:44*	*1*
p-Terphenyl-d14	*96*		*65 - 153*	*09/15/16 07:08*	*09/16/16 15:44*	*1*
Phenol-d5	*76*		*11 - 120*	*09/15/16 07:08*	*09/16/16 15:44*	*1*

Client Sample ID: KU-TP-E-S
Date Collected: 09/12/16 10:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-2
Matrix: Solid
Percent Solids: 88.5

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**31**		9.3	1.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
4,4'-DDE	**81**		9.3	2.0	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
4,4'-DDT	**170**		9.3	2.2	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Aldrin	ND		9.3	2.3	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
alpha-BHC	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
alpha-Chlordane	ND		9.3	4.6	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
beta-BHC	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
delta-BHC	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Dieldrin	**24**		9.3	2.2	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endosulfan I	ND		9.3	1.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endosulfan II	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endosulfan sulfate	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endrin	ND		9.3	1.8	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endrin aldehyde	ND		9.3	2.4	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Endrin ketone	ND		9.3	2.3	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
gamma-BHC (Lindane)	ND		9.3	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
gamma-Chlordane	ND		9.3	3.0	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Heptachlor	ND		9.3	2.0	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Heptachlor epoxide	ND		9.3	2.4	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Methoxychlor	**2.8**	**J**	9.3	1.9	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5
Toxaphene	ND		93	54	ug/Kg	☼	09/15/16 06:36	09/21/16 13:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*45 - 120*	*09/15/16 06:36*	*09/21/16 13:59*	*5*
Tetrachloro-m-xylene	*72*		*30 - 124*	*09/15/16 06:36*	*09/21/16 13:59*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.042	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1221	ND		0.21	0.042	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1232	ND		0.21	0.042	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1242	ND		0.21	0.042	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1248	ND		0.21	0.042	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1254	ND		0.21	0.10	mg/Kg		09/15/16 07:21	09/15/16 18:44	1
PCB-1260	ND		0.21	0.10	mg/Kg		09/15/16 07:21	09/15/16 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*09/15/16 07:21*	*09/15/16 18:44*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*09/15/16 07:21*	*09/15/16 18:44*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.3**		2.3	0.46	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Barium	**84.8**		0.57	0.13	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Cadmium	**0.38**		0.23	0.034	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Chromium	**11.0**		0.57	0.23	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Lead	**236**		1.1	0.27	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Selenium	ND		4.6	0.46	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1
Silver	ND		0.68	0.23	mg/Kg	☼	09/15/16 12:27	09/16/16 13:45	1

Client Sample ID: KU-TP-E-S

Lab Sample ID: 480-105899-2
Date Collected: 09/12/16 10:55
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.17**		0.022	0.0088	mg/Kg	☼	09/15/16 09:45	09/16/16 08:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.1	0.51	mg/Kg	☼	09/15/16 12:00	09/16/16 15:15	1

Client Sample ID: KU-TP-G-S

Lab Sample ID: 480-105899-3
Date Collected: 09/12/16 09:25
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 89.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.40	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.90	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,1,2-Trichloroethane	ND		5.6	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,1-Dichloroethane	ND		5.6	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,1-Dichloroethene	ND		5.6	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2,4-Trimethylbenzene	ND		5.6	1.1	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2-Dichlorobenzene	ND		5.6	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,3,5-Trimethylbenzene	ND		5.6	0.36	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,4-Dichlorobenzene	ND		5.6	0.78	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
2-Butanone (MEK)	ND		28	2.0	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
4-Isopropyltoluene	ND		5.6	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Acetone	ND		28	4.7	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Benzene	ND		5.6	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Bromoform	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Bromomethane	ND		5.6	0.50	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Carbon tetrachloride	ND		5.6	0.54	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Chlorobenzene	ND		5.6	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Dibromochloromethane	ND	*	5.6	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Chloroform	**0.36**	**J B**	5.6	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
cis-1,2-Dichloroethene	**17**		5.6	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Cyclohexane	ND		5.6	0.78	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Bromodichloromethane	ND		5.6	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Dichlorodifluoromethane	ND		5.6	0.46	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Ethylbenzene	ND		5.6	0.38	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
1,2-Dibromoethane	ND		5.6	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Isopropylbenzene	ND		5.6	0.84	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Methyl acetate	ND		28	3.4	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1

Client Sample ID: KU-TP-G-S
Date Collected: 09/12/16 09:25
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-3
Matrix: Solid
Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Methylcyclohexane	ND		5.6	0.84	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Methylene Chloride	**7.6**	**B**	5.6	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
m,p-Xylene	ND		11	0.93	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Naphthalene	ND		5.6	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
n-Butylbenzene	ND		5.6	0.48	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
N-Propylbenzene	ND		5.6	0.44	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
o-Xylene	ND		5.6	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
sec-Butylbenzene	ND		5.6	0.48	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Tetrachloroethene	ND		5.6	0.75	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Toluene	ND		5.6	0.42	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
trans-1,2-Dichloroethene	**0.70**	**J**	5.6	0.57	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
trans-1,3-Dichloropropene	ND		5.6	2.4	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Vinyl chloride	ND		5.6	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Xylenes, Total	ND		11	0.93	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
Styrene	ND		5.6	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1
tert-Butylbenzene	ND		5.6	0.58	ug/Kg	☼	09/14/16 21:00	09/15/16 06:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*09/14/16 21:00*	*09/15/16 06:35*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*09/14/16 21:00*	*09/15/16 06:35*	*1*
Toluene-d8 (Surr)	*106*		*71 - 125*	*09/14/16 21:00*	*09/15/16 06:35*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*09/14/16 21:00*	*09/15/16 06:35*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**13000**		220	62	ug/Kg	☼	09/19/16 17:19	09/22/16 01:47	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*53 - 146*	*09/19/16 17:19*	*09/22/16 01:47*	*2*
4-Bromofluorobenzene (Surr)	*96*		*49 - 148*	*09/19/16 17:19*	*09/22/16 01:47*	*2*
Toluene-d8 (Surr)	*96*		*50 - 149*	*09/19/16 17:19*	*09/22/16 01:47*	*2*
Dibromofluoromethane (Surr)	*89*		*60 - 140*	*09/19/16 17:19*	*09/22/16 01:47*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
bis (2-chloroisopropyl) ether	ND		940	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4,5-Trichlorophenol	ND		940	250	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4,6-Trichlorophenol	ND		940	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4-Dichlorophenol	ND		940	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4-Dimethylphenol	ND		940	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4-Dinitrophenol	ND		9200	4300	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,4-Dinitrotoluene	ND		940	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2,6-Dinitrotoluene	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2-Chloronaphthalene	ND		940	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2-Chlorophenol	ND		940	170	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2-Methylnaphthalene	ND		940	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5

Client Sample ID: KU-TP-G-S
Date Collected: 09/12/16 09:25
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-3
Matrix: Solid
Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2-Nitroaniline	ND		1800	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
2-Nitrophenol	ND		940	260	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
3,3'-Dichlorobenzidine	ND		1800	1100	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
3-Nitroaniline	ND		1800	260	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4,6-Dinitro-2-methylphenol	ND		1800	940	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Bromophenyl phenyl ether	ND		940	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Chloro-3-methylphenol	ND		940	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Chloroaniline	ND		940	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Chlorophenyl phenyl ether	ND		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Methylphenol	ND		1800	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Nitroaniline	ND		1800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
4-Nitrophenol	ND		1800	660	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Acenaphthene	ND		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Acenaphthylene	**270**	**J**	940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Acetophenone	ND		940	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Anthracene	**320**	**J**	940	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Atrazine	ND		940	330	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzaldehyde	ND		940	740	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzo[a]anthracene	**1300**		940	94	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzo[a]pyrene	**1800**		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzo[b]fluoranthene	**2200**		940	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzo[g,h,i]perylene	**1700**		940	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzo[k]fluoranthene	**670**	**J**	940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Bis(2-chloroethoxy)methane	ND		940	200	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Bis(2-chloroethyl)ether	ND		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Bis(2-ethylhexyl) phthalate	ND		940	320	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Butyl benzyl phthalate	ND		940	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Caprolactam	ND		940	280	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Carbazole	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Chrysene	**1500**		940	210	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Di-n-butyl phthalate	ND		940	160	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Di-n-octyl phthalate	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Dibenz(a,h)anthracene	ND		940	170	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Dibenzofuran	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Diethyl phthalate	ND		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Dimethyl phthalate	ND		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Fluoranthene	**2200**		940	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Fluorene	**110**	**J**	940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Hexachlorobenzene	ND		940	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Hexachlorobutadiene	ND		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Hexachlorocyclopentadiene	ND		940	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Hexachloroethane	ND		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Indeno[1,2,3-cd]pyrene	**1400**		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Isophorone	ND		940	200	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
N-Nitrosodi-n-propylamine	ND		940	160	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
N-Nitrosodiphenylamine	ND		940	760	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Naphthalene	ND		940	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Nitrobenzene	ND		940	100	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5

Client Sample ID: KU-TP-G-S
Date Collected: 09/12/16 09:25
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-3
Matrix: Solid
Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1800	940	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Phenanthrene	**1100**		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Phenol	ND		940	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Pyrene	**2200**		940	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5
Benzyl alcohol	ND		1800	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*114*		*39 - 146*	*09/15/16 07:13*	*09/16/16 16:11*	*5*
2-Fluorobiphenyl	*89*		*37 - 120*	*09/15/16 07:13*	*09/16/16 16:11*	*5*
2-Fluorophenol	*71*		*18 - 120*	*09/15/16 07:13*	*09/16/16 16:11*	*5*
Nitrobenzene-d5	*72*		*34 - 132*	*09/15/16 07:13*	*09/16/16 16:11*	*5*
p-Terphenyl-d14	*93*		*65 - 153*	*09/15/16 07:13*	*09/16/16 16:11*	*5*
Phenol-d5	*68*		*11 - 120*	*09/15/16 07:13*	*09/16/16 16:11*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		18	3.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
4,4'-DDE	**3.9**	**J**	18	3.8	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
4,4'-DDT	ND		18	4.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Aldrin	ND		18	4.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
alpha-BHC	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
alpha-Chlordane	ND		18	9.1	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
beta-BHC	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
delta-BHC	ND		18	3.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Dieldrin	ND		18	4.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endosulfan I	ND		18	3.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endosulfan II	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endosulfan sulfate	ND		18	3.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endrin	ND		18	3.6	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endrin aldehyde	ND		18	4.6	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Endrin ketone	ND		18	4.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
gamma-BHC (Lindane)	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
gamma-Chlordane	ND		18	5.8	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Heptachlor	ND		18	3.9	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Heptachlor epoxide	ND		18	4.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Methoxychlor	**6.9**	**J**	18	3.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10
Toxaphene	ND		180	110	ug/Kg	☼	09/15/16 06:36	09/21/16 14:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*45 - 120*	*09/15/16 06:36*	*09/21/16 14:18*	*10*
Tetrachloro-m-xylene	*70*		*30 - 124*	*09/15/16 06:36*	*09/21/16 14:18*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.045	mg/Kg		09/15/16 07:21	09/15/16 19:00	1
PCB-1221	ND		0.23	0.045	mg/Kg		09/15/16 07:21	09/15/16 19:00	1
PCB-1232	ND		0.23	0.045	mg/Kg		09/15/16 07:21	09/15/16 19:00	1
PCB-1242	ND		0.23	0.045	mg/Kg		09/15/16 07:21	09/15/16 19:00	1
PCB-1248	ND		0.23	0.045	mg/Kg		09/15/16 07:21	09/15/16 19:00	1
PCB-1254	ND		0.23	0.11	mg/Kg		09/15/16 07:21	09/15/16 19:00	1

Client Sample ID: KU-TP-G-S

Lab Sample ID: 480-105899-3
Date Collected: 09/12/16 09:25
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 89.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.23	0.11	mg/Kg		09/15/16 07:21	09/15/16 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*127*		*60 - 154*	*09/15/16 07:21*	*09/15/16 19:00*	*1*
DCB Decachlorobiphenyl	*125*		*65 - 174*	*09/15/16 07:21*	*09/15/16 19:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.4**		2.3	0.45	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Barium	**57.5**		0.57	0.12	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Cadmium	**0.19**	**J**	0.23	0.034	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Chromium	**9.9**		0.57	0.23	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Lead	**73.3**		1.1	0.27	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Selenium	ND		4.5	0.45	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1
Silver	ND		0.68	0.23	mg/Kg	☼	09/15/16 12:27	09/16/16 13:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.17**		0.022	0.0087	mg/Kg	☼	09/15/16 09:45	09/16/16 08:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.0	0.48	mg/Kg	☼	09/15/16 12:00	09/16/16 15:16	1

Client Sample ID: KU-TP-J-S

Lab Sample ID: 480-105899-4
Date Collected: 09/12/16 13:15
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.5	0.40	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,1,2,2-Tetrachloroethane	ND		5.5	0.90	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,1,2-Trichloroethane	ND		5.5	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,1-Dichloroethane	ND		5.5	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,1-Dichloroethene	ND		5.5	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2,4-Trichlorobenzene	ND		5.5	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2,4-Trimethylbenzene	ND		5.5	1.1	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2-Dibromo-3-Chloropropane	ND		5.5	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2-Dichlorobenzene	ND		5.5	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2-Dichloroethane	ND		5.5	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2-Dichloropropane	ND		5.5	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,3,5-Trimethylbenzene	ND		5.5	0.36	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,3-Dichlorobenzene	ND		5.5	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,4-Dichlorobenzene	ND		5.5	0.77	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
2-Butanone (MEK)	ND		28	2.0	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
4-Isopropyltoluene	ND		5.5	0.44	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Acetone	ND		28	4.7	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Benzene	ND		5.5	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1

Client Sample ID: KU-TP-J-S
Date Collected: 09/12/16 13:15
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-4
Matrix: Solid
Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		5.5	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Bromomethane	ND		5.5	0.50	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Carbon disulfide	ND		5.5	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Carbon tetrachloride	ND		5.5	0.53	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Chlorobenzene	ND		5.5	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Dibromochloromethane	ND	*	5.5	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Chloroethane	ND		5.5	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Chloroform	ND		5.5	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Chloromethane	ND		5.5	0.33	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
cis-1,2-Dichloroethene	ND		5.5	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Cyclohexane	ND		5.5	0.77	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Bromodichloromethane	ND		5.5	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Dichlorodifluoromethane	ND		5.5	0.46	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
1,2-Dibromoethane	ND		5.5	0.71	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Isopropylbenzene	ND		5.5	0.83	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Methyl acetate	ND		28	3.3	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Methylcyclohexane	ND		5.5	0.84	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Methylene Chloride	**7.9**	**B**	5.5	2.5	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
m,p-Xylene	ND		11	0.93	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Naphthalene	ND		5.5	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
n-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
N-Propylbenzene	ND		5.5	0.44	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
o-Xylene	ND		5.5	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
sec-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Tetrachloroethene	ND		5.5	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Toluene	ND		5.5	0.42	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Trichloroethene	ND		5.5	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Trichlorofluoromethane	ND		5.5	0.52	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Vinyl chloride	ND		5.5	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Xylenes, Total	ND		11	0.93	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
cis-1,3-Dichloropropene	ND		5.5	0.80	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
Styrene	ND		5.5	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1
tert-Butylbenzene	ND		5.5	0.57	ug/Kg	☼	09/14/16 21:00	09/15/16 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*09/14/16 21:00*	*09/15/16 07:01*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*09/14/16 21:00*	*09/15/16 07:01*	*1*
Toluene-d8 (Surr)	*106*		*71 - 125*	*09/14/16 21:00*	*09/15/16 07:01*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*09/14/16 21:00*	*09/15/16 07:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
bis (2-chloroisopropyl) ether	ND		930	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,4,5-Trichlorophenol	ND		930	250	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,4,6-Trichlorophenol	ND		930	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5

Client Sample ID: KU-TP-J-S
Date Collected: 09/12/16 13:15
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-4
Matrix: Solid
Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		930	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,4-Dimethylphenol	ND		930	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,4-Dinitrophenol	ND		9100	4300	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,4-Dinitrotoluene	ND		930	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2,6-Dinitrotoluene	ND		930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Chloronaphthalene	ND		930	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Chlorophenol	ND		930	170	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Methylnaphthalene	ND		930	190	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Methylphenol	ND		930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Nitroaniline	ND		1800	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
2-Nitrophenol	ND		930	260	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
3,3'-Dichlorobenzidine	ND		1800	1100	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
3-Nitroaniline	ND		1800	260	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4,6-Dinitro-2-methylphenol	ND		1800	930	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Bromophenyl phenyl ether	ND		930	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Chloro-3-methylphenol	ND		930	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Chloroaniline	ND		930	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Chlorophenyl phenyl ether	ND		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Methylphenol	ND		1800	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Nitroaniline	ND		1800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
4-Nitrophenol	ND		1800	650	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Acenaphthene	**220**	**J**	930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Acenaphthylene	**450**	**J**	930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Acetophenone	ND		930	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Anthracene	**770**	**J**	930	230	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Atrazine	ND		930	320	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzaldehyde	ND		930	740	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzo[a]anthracene	**2300**		930	93	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzo[a]pyrene	**2300**		930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzo[b]fluoranthene	**3200**		930	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzo[g,h,i]perylene	**1900**		930	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzo[k]fluoranthene	**1100**		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Bis(2-chloroethoxy)methane	ND		930	200	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Bis(2-chloroethyl)ether	ND		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Bis(2-ethylhexyl) phthalate	ND		930	320	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Butyl benzyl phthalate	ND		930	150	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Caprolactam	ND		930	280	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Carbazole	**390**	**J**	930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Chrysene	**2700**		930	210	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Di-n-butyl phthalate	ND		930	160	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Di-n-octyl phthalate	ND		930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Dibenz(a,h)anthracene	ND		930	160	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Dibenzofuran	**280**	**J**	930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Diethyl phthalate	ND		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Dimethyl phthalate	ND		930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Fluoranthene	**5700**		930	99	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Fluorene	**330**	**J**	930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Hexachlorobenzene	ND		930	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Hexachlorobutadiene	ND		930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5

Client Sample ID: KU-TP-J-S
Date Collected: 09/12/16 13:15
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-4
Matrix: Solid
Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		930	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Hexachloroethane	ND		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Indeno[1,2,3-cd]pyrene	**1700**		930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Isophorone	ND		930	200	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
N-Nitrosodi-n-propylamine	ND		930	160	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
N-Nitrosodiphenylamine	ND		930	760	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Naphthalene	**270**	**J**	930	120	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Nitrobenzene	ND		930	100	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Pentachlorophenol	ND		1800	930	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Phenanthrene	**4200**		930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Phenol	ND		930	140	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Pyrene	**4600**		930	110	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5
Benzyl alcohol	ND		1800	130	ug/Kg	☼	09/15/16 07:13	09/16/16 16:37	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*118*		*39 - 146*	*09/15/16 07:13*	*09/16/16 16:37*	*5*
2-Fluorobiphenyl	*93*		*37 - 120*	*09/15/16 07:13*	*09/16/16 16:37*	*5*
2-Fluorophenol	*76*		*18 - 120*	*09/15/16 07:13*	*09/16/16 16:37*	*5*
Nitrobenzene-d5	*78*		*34 - 132*	*09/15/16 07:13*	*09/16/16 16:37*	*5*
p-Terphenyl-d14	*100*		*65 - 153*	*09/15/16 07:13*	*09/16/16 16:37*	*5*
Phenol-d5	*82*		*11 - 120*	*09/15/16 07:13*	*09/16/16 16:37*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		18	3.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
4,4'-DDE	ND		18	3.8	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
4,4'-DDT	ND		18	4.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Aldrin	ND		18	4.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
alpha-BHC	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
alpha-Chlordane	ND		18	9.1	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
beta-BHC	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
delta-BHC	ND		18	3.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Dieldrin	ND		18	4.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endosulfan I	ND		18	3.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endosulfan II	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endosulfan sulfate	ND		18	3.4	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endrin	ND		18	3.6	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endrin aldehyde	ND		18	4.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Endrin ketone	ND		18	4.5	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
gamma-BHC (Lindane)	ND		18	3.3	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
gamma-Chlordane	ND		18	5.8	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Heptachlor	ND		18	4.0	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Heptachlor epoxide	ND		18	4.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Methoxychlor	**7.0**	**J**	18	3.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10
Toxaphene	ND		180	110	ug/Kg	☼	09/15/16 06:36	09/21/16 14:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*45 - 120*	*09/15/16 06:36*	*09/21/16 14:38*	*10*
Tetrachloro-m-xylene	*85*		*30 - 124*	*09/15/16 06:36*	*09/21/16 14:38*	*10*

Client Sample ID: KU-TP-J-S

Lab Sample ID: 480-105899-4
Date Collected: 09/12/16 13:15
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.035	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1221	ND		0.18	0.035	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1232	ND		0.18	0.035	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1242	ND		0.18	0.035	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1248	ND		0.18	0.035	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1254	ND		0.18	0.084	mg/Kg		09/15/16 07:21	09/15/16 19:15	1
PCB-1260	ND		0.18	0.084	mg/Kg		09/15/16 07:21	09/15/16 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*130*		*60 - 154*	*09/15/16 07:21*	*09/15/16 19:15*	*1*
DCB Decachlorobiphenyl	*126*		*65 - 174*	*09/15/16 07:21*	*09/15/16 19:15*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.9**		2.4	0.48	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Barium	**119**		0.60	0.13	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Cadmium	**0.28**		0.24	0.036	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Chromium	**14.7**		0.60	0.24	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Lead	**86.3**		1.2	0.29	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Selenium	ND		4.8	0.48	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1
Silver	ND		0.72	0.24	mg/Kg	☼	09/15/16 12:27	09/16/16 14:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.23**		0.021	0.0084	mg/Kg	☼	09/15/16 09:45	09/16/16 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.1	0.53	mg/Kg	☼	09/15/16 12:00	09/16/16 15:18	1

Client Sample ID: KU-TP-L-S

Lab Sample ID: 480-105899-5
Date Collected: 09/12/16 13:55
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 95.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.84	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,1,2-Trichloroethane	ND		5.2	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,1-Dichloroethane	ND		5.2	0.63	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,1-Dichloroethene	ND		5.2	0.63	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2,4-Trichlorobenzene	ND		5.2	0.31	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2,4-Trimethylbenzene	ND		5.2	0.99	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2-Dichlorobenzene	ND		5.2	0.40	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,3,5-Trimethylbenzene	ND		5.2	0.33	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,4-Dichlorobenzene	ND		5.2	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1

Client Sample ID: KU-TP-L-S
Date Collected: 09/12/16 13:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-5
Matrix: Solid
Percent Solids: 95.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
4-Isopropyltoluene	ND		5.2	0.41	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Acetone	ND		26	4.4	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Benzene	ND		5.2	0.25	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Carbon tetrachloride	ND		5.2	0.50	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Chlorobenzene	ND		5.2	0.68	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Dibromochloromethane	ND	*	5.2	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Chloroform	**0.33**	**J B**	5.2	0.32	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Chloromethane	ND		5.2	0.31	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
cis-1,2-Dichloroethene	ND		5.2	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Cyclohexane	ND		5.2	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Bromodichloromethane	ND		5.2	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
1,2-Dibromoethane	ND		5.2	0.66	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Isopropylbenzene	ND		5.2	0.78	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Methyl acetate	ND		26	3.1	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Methylcyclohexane	ND		5.2	0.79	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Methylene Chloride	**7.5**	**B**	5.2	2.4	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
m,p-Xylene	ND		10	0.87	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Naphthalene	ND		5.2	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
n-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
N-Propylbenzene	ND		5.2	0.41	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
o-Xylene	ND		5.2	0.67	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
sec-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Tetrachloroethene	ND		5.2	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Toluene	ND		5.2	0.39	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
trans-1,2-Dichloroethene	ND		5.2	0.53	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Trichloroethene	ND		5.2	1.1	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Trichlorofluoromethane	ND		5.2	0.49	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Vinyl chloride	ND		5.2	0.63	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Xylenes, Total	ND		10	0.87	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
cis-1,3-Dichloropropene	ND		5.2	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
Styrene	ND		5.2	0.26	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1
tert-Butylbenzene	ND		5.2	0.54	ug/Kg	☼	09/14/16 21:00	09/15/16 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*09/14/16 21:00*	*09/15/16 07:27*	*1*
4-Bromofluorobenzene (Surr)	*82*		*72 - 126*	*09/14/16 21:00*	*09/15/16 07:27*	*1*
Toluene-d8 (Surr)	*111*		*71 - 125*	*09/14/16 21:00*	*09/15/16 07:27*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*09/14/16 21:00*	*09/15/16 07:27*	*1*

Client Sample ID: KU-TP-L-S
Date Collected: 09/12/16 13:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-5
Matrix: Solid
Percent Solids: 95.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
bis (2-chloroisopropyl) ether	ND		870	170	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4,5-Trichlorophenol	ND		870	240	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4,6-Trichlorophenol	ND		870	170	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4-Dichlorophenol	ND		870	92	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4-Dimethylphenol	ND		870	210	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4-Dinitrophenol	ND		8500	4000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,4-Dinitrotoluene	ND		870	180	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2,6-Dinitrotoluene	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Chloronaphthalene	ND		870	140	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Chlorophenol	ND		870	160	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Methylnaphthalene	ND		870	170	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Methylphenol	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Nitroaniline	ND		1700	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
2-Nitrophenol	ND		870	250	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
3,3'-Dichlorobenzidine	ND		1700	1000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
3-Nitroaniline	ND		1700	240	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4,6-Dinitro-2-methylphenol	ND		1700	870	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Bromophenyl phenyl ether	ND		870	120	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Chloro-3-methylphenol	ND		870	220	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Chloroaniline	ND		870	220	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Chlorophenyl phenyl ether	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Methylphenol	ND		1700	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Nitroaniline	ND		1700	460	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
4-Nitrophenol	ND		1700	610	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Acenaphthene	ND		870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Acenaphthylene	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Acetophenone	ND		870	120	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Anthracene	ND		870	220	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Atrazine	ND		870	300	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzaldehyde	ND		870	690	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzo[a]anthracene	**310**	**J**	870	87	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzo[a]pyrene	**390**	**J**	870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzo[b]fluoranthene	**610**	**J K**	870	140	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzo[g,h,i]perylene	**340**	**J**	870	92	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzo[k]fluoranthene	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Bis(2-chloroethoxy)methane	ND		870	180	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Bis(2-chloroethyl)ether	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Bis(2-ethylhexyl) phthalate	ND		870	300	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Butyl benzyl phthalate	ND		870	140	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Caprolactam	ND		870	260	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Carbazole	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Chrysene	**390**	**J**	870	190	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Di-n-butyl phthalate	ND		870	150	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Di-n-octyl phthalate	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Dibenz(a,h)anthracene	ND		870	150	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Dibenzofuran	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Diethyl phthalate	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Dimethyl phthalate	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5

Client Sample ID: KU-TP-L-S
Date Collected: 09/12/16 13:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-5
Matrix: Solid
Percent Solids: 95.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**580**	**J**	870	92	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Fluorene	ND		870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Hexachlorobenzene	ND		870	120	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Hexachlorobutadiene	ND		870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Hexachlorocyclopentadiene	ND		870	120	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Hexachloroethane	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Indeno[1,2,3-cd]pyrene	**290**	**J**	870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Isophorone	ND		870	180	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
N-Nitrosodi-n-propylamine	ND		870	150	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
N-Nitrosodiphenylamine	ND		870	710	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Naphthalene	ND		870	110	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Nitrobenzene	ND		870	97	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Pentachlorophenol	ND		1700	870	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Phenanthrene	**310**	**J**	870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Phenol	ND		870	130	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Pyrene	**530**	**J**	870	100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5
Benzyl alcohol	ND		1700	120	ug/Kg	☼	09/15/16 07:13	09/16/16 17:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*39 - 146*	*09/15/16 07:13*	*09/16/16 17:04*	*5*
2-Fluorobiphenyl	*89*		*37 - 120*	*09/15/16 07:13*	*09/16/16 17:04*	*5*
2-Fluorophenol	*64*		*18 - 120*	*09/15/16 07:13*	*09/16/16 17:04*	*5*
Nitrobenzene-d5	*74*		*34 - 132*	*09/15/16 07:13*	*09/16/16 17:04*	*5*
p-Terphenyl-d14	*96*		*65 - 153*	*09/15/16 07:13*	*09/16/16 17:04*	*5*
Phenol-d5	*67*		*11 - 120*	*09/15/16 07:13*	*09/16/16 17:04*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.5	0.67	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
4,4'-DDE	**8.0**		3.5	0.73	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
4,4'-DDT	**13**		3.5	0.81	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Aldrin	ND		3.5	0.85	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
alpha-BHC	ND		3.5	0.62	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
alpha-Chlordane	ND		3.5	1.7	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
beta-BHC	ND		3.5	0.62	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
delta-BHC	ND		3.5	0.64	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Dieldrin	ND		3.5	0.83	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endosulfan I	ND		3.5	0.66	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endosulfan II	ND		3.5	0.62	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endosulfan sulfate	ND		3.5	0.65	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endrin	ND		3.5	0.68	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endrin aldehyde	ND		3.5	0.88	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Endrin ketone	ND		3.5	0.85	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
gamma-BHC (Lindane)	ND		3.5	0.63	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
gamma-Chlordane	ND		3.5	1.1	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Heptachlor	ND		3.5	0.75	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Heptachlor epoxide	ND		3.5	0.89	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Methoxychlor	**1.3**	**J**	3.5	0.71	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2
Toxaphene	ND		35	20	ug/Kg	☼	09/15/16 06:36	09/21/16 14:57	2

Client Sample ID: KU-TP-L-S

Date Collected: 09/12/16 13:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-5

Matrix: Solid
Percent Solids: 95.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	26	X	45 - 120	09/15/16 06:36	09/21/16 14:57	2
Tetrachloro-m-xylene	33		30 - 124	09/15/16 06:36	09/21/16 14:57	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1221	ND		0.24	0.047	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1232	ND		0.24	0.047	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1242	ND		0.24	0.047	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1248	ND		0.24	0.047	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1254	ND		0.24	0.11	mg/Kg		09/15/16 07:21	09/15/16 19:31	1
PCB-1260	ND		0.24	0.11	mg/Kg		09/15/16 07:21	09/15/16 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	121		60 - 154	09/15/16 07:21	09/15/16 19:31	1
DCB Decachlorobiphenyl	122		65 - 174	09/15/16 07:21	09/15/16 19:31	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.5**		2.2	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Barium	**140**		0.55	0.12	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Cadmium	**0.53**		0.22	0.033	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Chromium	**16.3**		0.55	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Lead	**121**		1.1	0.27	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Selenium	ND		4.4	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1
Silver	**0.75**		0.66	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 14:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.15**		0.020	0.0082	mg/Kg	☼	09/15/16 09:45	09/16/16 08:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.0	0.49	mg/Kg	☼	09/15/16 12:00	09/16/16 15:19	1

Client Sample ID: KU-TP-N-S

Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6

Matrix: Solid
Percent Solids: 88.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.41	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,1,2,2-Tetrachloroethane	ND	F1	5.6	0.91	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,1,2-Trichloroethane	ND		5.6	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,1-Dichloroethane	ND		5.6	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,1-Dichloroethene	ND		5.6	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2,4-Trichlorobenzene	ND	F1	5.6	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2,4-Trimethylbenzene	ND		5.6	1.1	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2-Dichlorobenzene	ND	F1	5.6	0.44	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1

Client Sample ID: KU-TP-N-S
Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6
Matrix: Solid
Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND	F1	5.6	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,3,5-Trimethylbenzene	ND		5.6	0.36	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,3-Dichlorobenzene	ND	F1	5.6	0.29	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,4-Dichlorobenzene	ND	F1	5.6	0.79	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
2-Butanone (MEK)	**33**	**F1**	28	2.1	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
4-Isopropyltoluene	ND		5.6	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Acetone	**190**	**F1**	28	4.7	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Benzene	ND		5.6	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Bromoform	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Bromomethane	ND		5.6	0.51	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Carbon tetrachloride	ND		5.6	0.54	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Chlorobenzene	ND		5.6	0.74	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Dibromochloromethane	ND	*	5.6	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Chloroform	**0.43**	**J B**	5.6	0.35	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Cyclohexane	ND		5.6	0.79	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Bromodichloromethane	ND		5.6	0.75	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Dichlorodifluoromethane	ND		5.6	0.46	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Ethylbenzene	ND		5.6	0.39	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
1,2-Dibromoethane	ND	F1	5.6	0.72	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Isopropylbenzene	ND		5.6	0.85	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Methyl acetate	ND		28	3.4	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Methylcyclohexane	ND		5.6	0.86	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Methylene Chloride	**11**	**B**	5.6	2.6	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
m,p-Xylene	ND		11	0.95	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Naphthalene	ND		5.6	0.75	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
n-Butylbenzene	ND	F1	5.6	0.49	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
N-Propylbenzene	ND		5.6	0.45	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
o-Xylene	ND		5.6	0.73	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
sec-Butylbenzene	ND		5.6	0.49	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Tetrachloroethene	ND		5.6	0.76	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Toluene	ND		5.6	0.43	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
trans-1,2-Dichloroethene	ND	F1	5.6	0.58	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Vinyl chloride	ND		5.6	0.69	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Xylenes, Total	ND	F1	11	0.95	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
cis-1,3-Dichloropropene	ND	F1	5.6	0.81	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
Styrene	ND	F1	5.6	0.28	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1
tert-Butylbenzene	ND		5.6	0.59	ug/Kg	☼	09/14/16 21:00	09/15/16 07:52	1

Client Sample ID: KU-TP-N-S

Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6

Matrix: Solid
Percent Solids: 88.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*09/14/16 21:00*	*09/15/16 07:52*	*1*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*	*09/14/16 21:00*	*09/15/16 07:52*	*1*
Toluene-d8 (Surr)	*107*		*71 - 125*	*09/14/16 21:00*	*09/15/16 07:52*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/14/16 21:00*	*09/15/16 07:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		3800	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
bis (2-chloroisopropyl) ether	ND		3800	760	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4,5-Trichlorophenol	ND		3800	1000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4,6-Trichlorophenol	ND		3800	760	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4-Dichlorophenol	ND		3800	400	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4-Dimethylphenol	ND		3800	920	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4-Dinitrophenol	ND		37000	18000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,4-Dinitrotoluene	ND		3800	780	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2,6-Dinitrotoluene	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Chloronaphthalene	ND		3800	630	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Chlorophenol	ND		3800	690	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Methylnaphthalene	ND		3800	760	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Methylphenol	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Nitroaniline	ND		7400	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
2-Nitrophenol	ND		3800	1100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
3,3'-Dichlorobenzidine	ND		7400	4500	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
3-Nitroaniline	ND		7400	1100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4,6-Dinitro-2-methylphenol	ND		7400	3800	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Bromophenyl phenyl ether	ND		3800	540	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Chloro-3-methylphenol	ND		3800	940	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Chloroaniline	ND		3800	940	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Chlorophenyl phenyl ether	ND		3800	470	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Methylphenol	ND		7400	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Nitroaniline	ND		7400	2000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
4-Nitrophenol	ND		7400	2700	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Acenaphthene	ND		3800	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Acenaphthylene	ND		3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Acetophenone	ND		3800	520	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Anthracene	ND		3800	940	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Atrazine	ND		3800	1300	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzaldehyde	ND		3800	3000	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzo[a]anthracene	**2400**	**J**	3800	380	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzo[a]pyrene	**2200**	**J**	3800	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzo[b]fluoranthene	**2900**	**J**	3800	600	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzo[g,h,i]perylene	**1800**	**J**	3800	400	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzo[k]fluoranthene	**580**	**J**	3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Bis(2-chloroethoxy)methane	ND		3800	810	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Bis(2-chloroethyl)ether	ND		3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Bis(2-ethylhexyl) phthalate	ND		3800	1300	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Butyl benzyl phthalate	ND		3800	630	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Caprolactam	ND		3800	1100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Carbazole	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Chrysene	**2600**	**J**	3800	850	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20

Client Sample ID: KU-TP-N-S
Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6
Matrix: Solid
Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		3800	650	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Di-n-octyl phthalate	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Dibenz(a,h)anthracene	ND		3800	670	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Dibenzofuran	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Diethyl phthalate	ND		3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Dimethyl phthalate	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Fluoranthene	**6200**		3800	400	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Fluorene	ND		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Hexachlorobenzene	ND		3800	520	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Hexachlorobutadiene	ND		3800	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Hexachlorocyclopentadiene	ND		3800	520	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Hexachloroethane	ND		3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Indeno[1,2,3-cd]pyrene	**1500**	**J**	3800	470	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Isophorone	ND		3800	810	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
N-Nitrosodi-n-propylamine	ND		3800	650	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
N-Nitrosodiphenylamine	ND		3800	3100	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Naphthalene	ND		3800	490	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Nitrobenzene	ND		3800	430	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Pentachlorophenol	ND		7400	3800	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Phenanthrene	**3300**	**J**	3800	560	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Phenol	ND		3800	580	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Pyrene	**4200**		3800	450	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20
Benzyl alcohol	ND		7400	520	ug/Kg	☼	09/15/16 07:13	09/16/16 17:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*125*		*39 - 146*	*09/15/16 07:13*	*09/16/16 17:30*	*20*
2-Fluorobiphenyl	*78*		*37 - 120*	*09/15/16 07:13*	*09/16/16 17:30*	*20*
2-Fluorophenol	*71*		*18 - 120*	*09/15/16 07:13*	*09/16/16 17:30*	*20*
Nitrobenzene-d5	*75*		*34 - 132*	*09/15/16 07:13*	*09/16/16 17:30*	*20*
p-Terphenyl-d14	*79*		*65 - 153*	*09/15/16 07:13*	*09/16/16 17:30*	*20*
Phenol-d5	*70*		*11 - 120*	*09/15/16 07:13*	*09/16/16 17:30*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**110**		37	7.1	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
4,4'-DDE	**62**		37	7.7	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
4,4'-DDT	**170**		37	8.6	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Aldrin	ND		37	9.0	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
alpha-BHC	ND		37	6.6	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
alpha-Chlordane	ND		37	18	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
beta-BHC	ND		37	6.6	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
delta-BHC	ND		37	6.8	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Dieldrin	ND		37	8.8	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endosulfan I	ND		37	7.1	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endosulfan II	ND		37	6.6	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endosulfan sulfate	ND		37	6.9	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endrin	ND		37	7.3	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endrin aldehyde	ND		37	9.4	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Endrin ketone	ND		37	9.0	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
gamma-BHC (Lindane)	ND		37	6.7	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20

Client Sample ID: KU-TP-N-S

Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6

Matrix: Solid
Percent Solids: 88.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-Chlordane	ND		37	12	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Heptachlor	ND		37	8.0	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Heptachlor epoxide	ND		37	9.5	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Methoxychlor	**8.7**	**J**	37	7.5	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20
Toxaphene	ND		370	210	ug/Kg	☼	09/15/16 06:36	09/21/16 15:17	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*130*	*X*	*45 - 120*	*09/15/16 06:36*	*09/21/16 15:17*	*20*
Tetrachloro-m-xylene	*104*		*30 - 124*	*09/15/16 06:36*	*09/21/16 15:17*	*20*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1221	ND		0.22	0.043	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1232	ND		0.22	0.043	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1242	ND		0.22	0.043	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1248	ND		0.22	0.043	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1254	ND		0.22	0.10	mg/Kg		09/15/16 07:21	09/15/16 19:46	1
PCB-1260	ND		0.22	0.10	mg/Kg		09/15/16 07:21	09/15/16 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*125*		*60 - 154*	*09/15/16 07:21*	*09/15/16 19:46*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*09/15/16 07:21*	*09/15/16 19:46*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.8**		2.2	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Barium	**96.0**		0.56	0.12	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Cadmium	**0.46**		0.22	0.033	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Chromium	**13.9**		0.56	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Lead	**158**		1.1	0.27	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Selenium	ND		4.4	0.44	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1
Silver	ND		0.67	0.22	mg/Kg	☼	09/15/16 12:27	09/16/16 14:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.18**		0.021	0.0086	mg/Kg	☼	09/15/16 09:45	09/16/16 08:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99	0.48	mg/Kg	☼	09/15/16 12:00	09/16/16 15:20	1

Surrogate Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(71-125)	(60-140)
480-105899-1	KU-TP-C-S	107	99	100	107
480-105899-2	KU-TP-E-S	97	92	105	103
480-105899-3	KU-TP-G-S	100	91	106	104
480-105899-4	KU-TP-J-S	99	91	106	103
480-105899-5	KU-TP-L-S	102	82	111	106
480-105899-6	KU-TP-N-S	102	90	107	107
480-105899-6 MS	KU-TP-N-S	89	92	109	104
480-105899-6 MSD	KU-TP-N-S	87	93	109	103
LCS 480-320370/1-A	Lab Control Sample	102	100	103	109
MB 480-320370/2-A	Method Blank	101	99	102	104

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(50-149)	(60-140)
480-105899-3 - DL	KU-TP-G-S	93	96	96	89
LCS 480-321121/1-A	Lab Control Sample	96	96	99	95
MB 480-321121/2-A	Method Blank	96	95	96	88

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(65-153)	(11-120)
480-105899-1	KU-TP-C-S	114	89	75	72	90	74
480-105899-1 MS	KU-TP-C-S	125	88	67	78	90	74
480-105899-1 MSD	KU-TP-C-S	113	87	64	71	89	67
480-105899-2	KU-TP-E-S	115	94	76	79	96	76
480-105899-3	KU-TP-G-S	114	89	71	72	93	68
480-105899-4	KU-TP-J-S	118	93	76	78	100	82
480-105899-5	KU-TP-L-S	87	89	64	74	96	67
480-105899-6	KU-TP-N-S	125	78	71	75	79	70
LCS 480-320403/2-A	Lab Control Sample	129	94	75	83	97	75
MB 480-320403/1-A	Method Blank	111	95	72	80	106	73

Surrogate Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(45-120)	(30-124)
480-105899-1	KU-TP-C-S	88	72
480-105899-2	KU-TP-E-S	86	72
480-105899-3	KU-TP-G-S	78	70
480-105899-4	KU-TP-J-S	78	85
480-105899-5	KU-TP-L-S	26 X	33
480-105899-6	KU-TP-N-S	130 X	104
LCS 480-320399/2-A	Lab Control Sample	62	60
MB 480-320399/1-A	Method Blank	72	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(65-174)
480-105899-1	KU-TP-C-S	134	136
480-105899-2	KU-TP-E-S	105	102
480-105899-3	KU-TP-G-S	127	125
480-105899-4	KU-TP-J-S	130	126
480-105899-5	KU-TP-L-S	121	122
480-105899-6	KU-TP-N-S	125	115
LCS 480-320405/2-A	Lab Control Sample	148	151
MB 480-320405/1-A	Method Blank	132	138

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-320370/2-A
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.35	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.79	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,1,2-Trichloroethane	ND		4.9	0.63	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,1-Dichloroethane	ND		4.9	0.59	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,1-Dichloroethene	ND		4.9	0.59	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2,4-Trimethylbenzene	ND		4.9	0.93	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.4	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2-Dichlorobenzene	ND		4.9	0.38	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2-Dichloroethane	ND		4.9	0.24	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2-Dichloropropane	ND		4.9	2.4	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,3,5-Trimethylbenzene	ND		4.9	0.31	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,4-Dichlorobenzene	ND		4.9	0.68	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
2-Hexanone	ND		24	2.4	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
4-Isopropyltoluene	ND		4.9	0.39	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Acetone	ND		24	4.1	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Benzene	ND		4.9	0.24	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Bromoform	ND		4.9	2.4	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Bromomethane	ND		4.9	0.44	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Carbon disulfide	ND		4.9	2.4	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Carbon tetrachloride	ND		4.9	0.47	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Chlorobenzene	ND		4.9	0.64	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Dibromochloromethane	ND		4.9	0.62	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Chloroethane	ND		4.9	1.1	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Chloroform	0.380	J	4.9	0.30	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Chloromethane	ND		4.9	0.29	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
cis-1,2-Dichloroethene	ND		4.9	0.62	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Cyclohexane	ND		4.9	0.68	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Bromodichloromethane	ND		4.9	0.65	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Dichlorodifluoromethane	ND		4.9	0.40	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Ethylbenzene	ND		4.9	0.33	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
1,2-Dibromoethane	ND		4.9	0.62	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Isopropylbenzene	ND		4.9	0.73	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Methyl acetate	ND		24	2.9	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Methyl tert-butyl ether	ND		4.9	0.48	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Methylcyclohexane	ND		4.9	0.74	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Methylene Chloride	4.98		4.9	2.2	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
m,p-Xylene	ND		9.7	0.82	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Naphthalene	ND		4.9	0.65	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
n-Butylbenzene	ND		4.9	0.42	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
N-Propylbenzene	ND		4.9	0.39	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
o-Xylene	ND		4.9	0.63	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
sec-Butylbenzene	ND		4.9	0.42	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Tetrachloroethene	ND		4.9	0.65	ug/Kg		09/14/16 21:00	09/15/16 00:37	1

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

Lab Sample ID: MB 480-320370/2-A
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		4.9	0.37	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
trans-1,2-Dichloroethene	ND		4.9	0.50	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
trans-1,3-Dichloropropene	ND		4.9	2.1	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Trichloroethene	ND		4.9	1.1	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Trichlorofluoromethane	ND		4.9	0.46	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Vinyl chloride	ND		4.9	0.59	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Xylenes, Total	ND		9.7	0.82	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
cis-1,3-Dichloropropene	ND		4.9	0.70	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
Styrene	ND		4.9	0.24	ug/Kg		09/14/16 21:00	09/15/16 00:37	1
tert-Butylbenzene	ND		4.9	0.50	ug/Kg		09/14/16 21:00	09/15/16 00:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*09/14/16 21:00*	*09/15/16 00:37*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/14/16 21:00*	*09/15/16 00:37*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*09/14/16 21:00*	*09/15/16 00:37*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*09/14/16 21:00*	*09/15/16 00:37*	*1*

Lab Sample ID: LCS 480-320370/1-A
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	48.7	54.5		ug/Kg		112	77 - 121
1,1,2,2-Tetrachloroethane	48.7	47.8		ug/Kg		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	48.7	50.7		ug/Kg		104	60 - 140
1,1,2-Trichloroethane	48.7	49.0		ug/Kg		101	78 - 122
1,1-Dichloroethane	48.7	48.5		ug/Kg		100	73 - 126
1,1-Dichloroethene	48.7	51.1		ug/Kg		105	59 - 125
1,2,4-Trichlorobenzene	48.7	50.3		ug/Kg		103	64 - 120
1,2,4-Trimethylbenzene	48.7	51.3		ug/Kg		105	74 - 120
1,2-Dibromo-3-Chloropropane	48.7	51.0		ug/Kg		105	63 - 124
1,2-Dichlorobenzene	48.7	49.6		ug/Kg		102	75 - 120
1,2-Dichloroethane	48.7	48.3		ug/Kg		99	77 - 122
1,2-Dichloropropane	48.7	48.2		ug/Kg		99	75 - 124
1,3,5-Trimethylbenzene	48.7	51.4		ug/Kg		105	74 - 120
1,3-Dichlorobenzene	48.7	50.2		ug/Kg		103	74 - 120
1,4-Dichlorobenzene	48.7	50.0		ug/Kg		103	73 - 120
2-Butanone (MEK)	244	262		ug/Kg		107	70 - 134
2-Hexanone	244	261		ug/Kg		107	59 - 130
4-Isopropyltoluene	48.7	52.4		ug/Kg		108	74 - 120
4-Methyl-2-pentanone (MIBK)	244	245		ug/Kg		100	65 - 133
Acetone	244	289		ug/Kg		119	61 - 137
Benzene	48.7	51.0		ug/Kg		105	79 - 127
Bromoform	48.7	53.9		ug/Kg		111	68 - 126
Bromomethane	48.7	53.8		ug/Kg		110	37 - 149
Carbon disulfide	48.7	49.4		ug/Kg		101	64 - 131
Carbon tetrachloride	48.7	59.4		ug/Kg		122	75 - 135

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

Lab Sample ID: LCS 480-320370/1-A
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	48.7	52.1		ug/Kg		107	76 - 124
Dibromochloromethane	48.7	62.3	*	ug/Kg		128	76 - 125
Chloroethane	48.7	53.1		ug/Kg		109	69 - 135
Chloroform	48.7	50.6		ug/Kg		104	80 - 118
Chloromethane	48.7	41.2		ug/Kg		84	63 - 127
cis-1,2-Dichloroethene	48.7	50.4		ug/Kg		103	81 - 117
Cyclohexane	48.7	47.6		ug/Kg		98	65 - 106
Bromodichloromethane	48.7	55.1		ug/Kg		113	80 - 122
Dichlorodifluoromethane	48.7	40.6		ug/Kg		83	57 - 142
Ethylbenzene	48.7	51.8		ug/Kg		106	80 - 120
1,2-Dibromoethane	48.7	51.1		ug/Kg		105	78 - 120
Isopropylbenzene	48.7	51.2		ug/Kg		105	72 - 120
Methyl acetate	244	241		ug/Kg		99	55 - 136
Methyl tert-butyl ether	48.7	53.0		ug/Kg		109	63 - 125
Methylcyclohexane	48.7	52.0		ug/Kg		107	60 - 140
Methylene Chloride	48.7	57.0		ug/Kg		117	61 - 127
m,p-Xylene	48.7	50.8		ug/Kg		104	70 - 130
Naphthalene	48.7	51.3		ug/Kg		105	38 - 137
n-Butylbenzene	48.7	50.5		ug/Kg		104	70 - 120
N-Propylbenzene	48.7	51.3		ug/Kg		105	70 - 130
o-Xylene	48.7	50.8		ug/Kg		104	70 - 130
sec-Butylbenzene	48.7	51.6		ug/Kg		106	74 - 120
Tetrachloroethene	48.7	50.9		ug/Kg		104	74 - 122
Toluene	48.7	50.2		ug/Kg		103	74 - 128
trans-1,2-Dichloroethene	48.7	51.8		ug/Kg		106	78 - 126
trans-1,3-Dichloropropene	48.7	53.4		ug/Kg		110	73 - 123
Trichloroethene	48.7	52.3		ug/Kg		107	77 - 129
Trichlorofluoromethane	48.7	52.3		ug/Kg		107	65 - 146
Vinyl chloride	48.7	46.1		ug/Kg		95	61 - 133
cis-1,3-Dichloropropene	48.7	53.4		ug/Kg		110	82 - 120
Styrene	48.7	50.8		ug/Kg		104	80 - 120
tert-Butylbenzene	48.7	50.2		ug/Kg		103	73 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*
4-Bromofluorobenzene (Surr)	*100*		*72 - 126*
Toluene-d8 (Surr)	*103*		*71 - 125*
Dibromofluoromethane (Surr)	*109*		*60 - 140*

Lab Sample ID: 480-105899-6 MS
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: KU-TP-N-S
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		55.1	53.7		ug/Kg	☼	97	77 - 121
1,1,2,2-Tetrachloroethane	ND	F1	55.1	45.5		ug/Kg	☼	83	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		55.1	48.5		ug/Kg	☼	88	60 - 140

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

Lab Sample ID: 480-105899-6 MS
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: KU-TP-N-S
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	ND		55.1	46.0		ug/Kg	☼	84	78 - 122
1,1-Dichloroethane	ND		55.1	50.2		ug/Kg	☼	91	73 - 126
1,1-Dichloroethene	ND		55.1	48.3		ug/Kg	☼	88	59 - 125
1,2,4-Trichlorobenzene	ND	F1	55.1	21.9	F1	ug/Kg	☼	40	64 - 120
1,2,4-Trimethylbenzene	ND		55.1	51.4		ug/Kg	☼	93	74 - 120
1,2-Dibromo-3-Chloropropane	ND		55.1	37.5		ug/Kg	☼	68	63 - 124
1,2-Dichlorobenzene	ND	F1	55.1	40.3	F1	ug/Kg	☼	73	75 - 120
1,2-Dichloroethane	ND	F1	55.1	45.5		ug/Kg	☼	83	77 - 122
1,2-Dichloropropane	ND		55.1	48.6		ug/Kg	☼	88	75 - 124
1,3,5-Trimethylbenzene	ND		55.1	51.8		ug/Kg	☼	94	74 - 120
1,3-Dichlorobenzene	ND	F1	55.1	41.0		ug/Kg	☼	74	74 - 120
1,4-Dichlorobenzene	ND	F1	55.1	39.3	F1	ug/Kg	☼	71	73 - 120
2-Butanone (MEK)	33	F1	275	228		ug/Kg	☼	71	70 - 134
2-Hexanone	ND		275	203		ug/Kg	☼	74	59 - 130
4-Isopropyltoluene	ND		55.1	45.6		ug/Kg	☼	83	74 - 120
4-Methyl-2-pentanone (MIBK)	ND		275	211		ug/Kg	☼	77	65 - 133
Acetone	190	F1	275	352	F1	ug/Kg	☼	60	61 - 137
Benzene	ND		55.1	50.9		ug/Kg	☼	92	79 - 127
Bromoform	ND		55.1	41.8		ug/Kg	☼	76	68 - 126
Bromomethane	ND		55.1	54.1		ug/Kg	☼	98	37 - 149
Carbon disulfide	ND		55.1	41.0		ug/Kg	☼	75	64 - 131
Carbon tetrachloride	ND		55.1	55.3		ug/Kg	☼	100	75 - 135
Chlorobenzene	ND		55.1	47.4		ug/Kg	☼	86	76 - 124
Dibromochloromethane	ND	*	55.1	56.1		ug/Kg	☼	102	76 - 125
Chloroethane	ND		55.1	54.3		ug/Kg	☼	99	69 - 135
Chloroform	0.43	J B	55.1	51.9		ug/Kg	☼	93	80 - 118
Chloromethane	ND		55.1	40.5		ug/Kg	☼	74	63 - 127
cis-1,2-Dichloroethene	ND		55.1	48.2		ug/Kg	☼	88	81 - 117
Cyclohexane	ND		55.1	40.3		ug/Kg	☼	73	65 - 106
Bromodichloromethane	ND		55.1	53.0		ug/Kg	☼	96	80 - 122
Dichlorodifluoromethane	ND		55.1	43.1		ug/Kg	☼	78	57 - 142
Ethylbenzene	ND		55.1	48.6		ug/Kg	☼	88	80 - 120
1,2-Dibromoethane	ND	F1	55.1	42.2	F1	ug/Kg	☼	77	78 - 120
Isopropylbenzene	ND		55.1	54.9		ug/Kg	☼	100	72 - 120
Methyl acetate	ND		275	187		ug/Kg	☼	68	55 - 136
Methyl tert-butyl ether	ND		55.1	52.0		ug/Kg	☼	94	63 - 125
Methylcyclohexane	ND		55.1	36.9		ug/Kg	☼	67	60 - 140
Methylene Chloride	11	B	55.1	67.6		ug/Kg	☼	102	61 - 127
m,p-Xylene	ND		55.1	46.4		ug/Kg	☼	84	70 - 130
Naphthalene	ND		55.1	25.2		ug/Kg	☼	46	38 - 137
n-Butylbenzene	ND	F1	55.1	34.9	F1	ug/Kg	☼	63	70 - 120
N-Propylbenzene	ND		55.1	50.0		ug/Kg	☼	91	70 - 130
o-Xylene	ND		55.1	47.9		ug/Kg	☼	87	70 - 130
sec-Butylbenzene	ND		55.1	45.2		ug/Kg	☼	82	74 - 120
Tetrachloroethene	ND		55.1	45.5		ug/Kg	☼	83	74 - 122
Toluene	ND		55.1	50.4		ug/Kg	☼	91	74 - 128
trans-1,2-Dichloroethene	ND	F1	55.1	46.4		ug/Kg	☼	84	78 - 126
trans-1,3-Dichloropropene	ND		55.1	42.1		ug/Kg	☼	76	73 - 123

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

Lab Sample ID: 480-105899-6 MS
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: KU-TP-N-S
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	ND		55.1	46.5		ug/Kg	☼	85	77 - 129
Trichlorofluoromethane	ND		55.1	55.8		ug/Kg	☼	101	65 - 146
Vinyl chloride	ND		55.1	43.7		ug/Kg	☼	79	61 - 133
cis-1,3-Dichloropropene	ND	F1	55.1	44.5	F1	ug/Kg	☼	81	82 - 120
Styrene	ND	F1	55.1	40.9	F1	ug/Kg	☼	74	80 - 120
tert-Butylbenzene	ND		55.1	49.3		ug/Kg	☼	89	73 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 126*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*
Toluene-d8 (Surr)	*109*		*71 - 125*
Dibromofluoromethane (Surr)	*104*		*60 - 140*

Lab Sample ID: 480-105899-6 MSD
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: KU-TP-N-S
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		56.4	50.0		ug/Kg	☼	89	77 - 121	7	30
1,1,2,2-Tetrachloroethane	ND	F1	56.4	43.8	F1	ug/Kg	☼	78	80 - 120	4	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		56.4	44.5		ug/Kg	☼	79	60 - 140	9	30
1,1,2-Trichloroethane	ND		56.4	43.7		ug/Kg	☼	78	78 - 122	5	30
1,1-Dichloroethane	ND		56.4	48.1		ug/Kg	☼	85	73 - 126	4	30
1,1-Dichloroethene	ND		56.4	45.1		ug/Kg	☼	80	59 - 125	7	30
1,2,4-Trichlorobenzene	ND	F1	56.4	21.6	F1	ug/Kg	☼	38	64 - 120	2	30
1,2,4-Trimethylbenzene	ND		56.4	48.3		ug/Kg	☼	86	74 - 120	6	30
1,2-Dibromo-3-Chloropropane	ND		56.4	36.2		ug/Kg	☼	64	63 - 124	3	30
1,2-Dichlorobenzene	ND	F1	56.4	39.2	F1	ug/Kg	☼	69	75 - 120	3	30
1,2-Dichloroethane	ND	F1	56.4	42.9	F1	ug/Kg	☼	76	77 - 122	6	30
1,2-Dichloropropane	ND		56.4	46.0		ug/Kg	☼	82	75 - 124	5	30
1,3,5-Trimethylbenzene	ND		56.4	49.5		ug/Kg	☼	88	74 - 120	5	30
1,3-Dichlorobenzene	ND	F1	56.4	40.0	F1	ug/Kg	☼	71	74 - 120	2	30
1,4-Dichlorobenzene	ND	F1	56.4	38.1	F1	ug/Kg	☼	68	73 - 120	3	30
2-Butanone (MEK)	33	F1	282	212	F1	ug/Kg	☼	64	70 - 134	7	30
2-Hexanone	ND		282	188		ug/Kg	☼	67	59 - 130	8	30
4-Isopropyltoluene	ND		56.4	43.1		ug/Kg	☼	76	74 - 120	6	30
4-Methyl-2-pentanone (MIBK)	ND		282	197		ug/Kg	☼	70	65 - 133	7	30
Acetone	190	F1	282	335	F1	ug/Kg	☼	52	61 - 137	5	30
Benzene	ND		56.4	47.7		ug/Kg	☼	85	79 - 127	6	30
Bromoform	ND		56.4	40.0		ug/Kg	☼	71	68 - 126	4	30
Bromomethane	ND		56.4	51.6		ug/Kg	☼	92	37 - 149	5	30
Carbon disulfide	ND		56.4	38.2		ug/Kg	☼	68	64 - 131	7	30
Carbon tetrachloride	ND		56.4	51.5		ug/Kg	☼	91	75 - 135	7	30
Chlorobenzene	ND		56.4	45.2		ug/Kg	☼	80	76 - 124	5	30
Dibromochloromethane	ND	*	56.4	53.3		ug/Kg	☼	95	76 - 125	5	30
Chloroethane	ND		56.4	51.5		ug/Kg	☼	91	69 - 135	5	30
Chloroform	0.43	J B	56.4	49.7		ug/Kg	☼	87	80 - 118	4	30

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

Lab Sample ID: 480-105899-6 MSD
Matrix: Solid
Analysis Batch: 320367

Client Sample ID: KU-TP-N-S
Prep Type: Total/NA
Prep Batch: 320370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	ND		56.4	39.1		ug/Kg	☼	69	63 - 127	3	30
cis-1,2-Dichloroethene	ND		56.4	45.4		ug/Kg	☼	81	81 - 117	6	30
Cyclohexane	ND		56.4	37.2		ug/Kg	☼	66	65 - 106	8	30
Bromodichloromethane	ND		56.4	50.6		ug/Kg	☼	90	80 - 122	5	30
Dichlorodifluoromethane	ND		56.4	39.1		ug/Kg	☼	69	57 - 142	10	30
Ethylbenzene	ND		56.4	45.9		ug/Kg	☼	81	80 - 120	6	30
1,2-Dibromoethane	ND	F1	56.4	40.4	F1	ug/Kg	☼	72	78 - 120	4	30
Isopropylbenzene	ND		56.4	52.0		ug/Kg	☼	92	72 - 120	5	30
Methyl acetate	ND		282	170		ug/Kg	☼	60	55 - 136	9	30
Methyl tert-butyl ether	ND		56.4	50.0		ug/Kg	☼	89	63 - 125	4	30
Methylcyclohexane	ND		56.4	33.9		ug/Kg	☼	60	60 - 140	9	30
Methylene Chloride	11	B	56.4	67.2		ug/Kg	☼	99	61 - 127	1	30
m,p-Xylene	ND		56.4	43.4		ug/Kg	☼	77	70 - 130	7	30
Naphthalene	ND		56.4	24.6		ug/Kg	☼	44	38 - 137	2	30
n-Butylbenzene	ND	F1	56.4	33.9	F1	ug/Kg	☼	60	70 - 120	3	30
N-Propylbenzene	ND		56.4	47.3		ug/Kg	☼	84	70 - 130	6	30
o-Xylene	ND		56.4	45.5		ug/Kg	☼	81	70 - 130	5	30
sec-Butylbenzene	ND		56.4	42.9		ug/Kg	☼	76	74 - 120	5	30
Tetrachloroethene	ND		56.4	42.6		ug/Kg	☼	75	74 - 122	7	30
Toluene	ND		56.4	47.2		ug/Kg	☼	84	74 - 128	7	30
trans-1,2-Dichloroethene	ND	F1	56.4	43.2	F1	ug/Kg	☼	77	78 - 126	7	30
trans-1,3-Dichloropropene	ND		56.4	41.0		ug/Kg	☼	73	73 - 123	3	30
Trichloroethene	ND		56.4	44.5		ug/Kg	☼	79	77 - 129	5	30
Trichlorofluoromethane	ND		56.4	51.2		ug/Kg	☼	91	65 - 146	9	30
Vinyl chloride	ND		56.4	40.8		ug/Kg	☼	72	61 - 133	7	30
cis-1,3-Dichloropropene	ND	F1	56.4	42.6	F1	ug/Kg	☼	76	82 - 120	4	30
Styrene	ND	F1	56.4	39.8	F1	ug/Kg	☼	71	80 - 120	3	30
tert-Butylbenzene	ND		56.4	46.2		ug/Kg	☼	82	73 - 120	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 126*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*
Toluene-d8 (Surr)	*109*		*71 - 125*
Dibromofluoromethane (Surr)	*103*		*60 - 140*

Lab Sample ID: MB 480-321121/2-A
Matrix: Solid
Analysis Batch: 321585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,1-Dichloroethane	ND		100	31	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,1-Dichloroethene	ND		100	35	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		09/19/16 17:19	09/21/16 23:07	1

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

Lab Sample ID: MB 480-321121/2-A
Matrix: Solid
Analysis Batch: 321585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2-Dichloroethane	ND		100	41	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2-Dichloropropane	ND		100	16	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
2-Butanone (MEK)	ND		500	300	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
2-Hexanone	ND		500	210	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
4-Isopropyltoluene	ND		100	34	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Acetone	ND		500	410	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Benzene	ND		100	19	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Bromoform	ND		100	50	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Bromomethane	ND		100	22	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Carbon disulfide	ND		100	46	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Carbon tetrachloride	ND		100	26	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Chlorobenzene	ND		100	13	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Dibromochloromethane	ND		100	48	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Chloroethane	ND		100	21	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Chloroform	ND		100	69	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Chloromethane	ND		100	24	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Cyclohexane	ND		100	22	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Bromodichloromethane	ND		100	20	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Ethylbenzene	ND		100	29	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
1,2-Dibromoethane	ND		100	18	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Isopropylbenzene	ND		100	15	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Methyl acetate	ND		100	48	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Methylcyclohexane	ND		100	47	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Methylene Chloride	ND		100	20	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
m,p-Xylene	ND		200	55	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Naphthalene	ND		100	34	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
n-Butylbenzene	ND		100	29	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
N-Propylbenzene	ND		100	26	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
o-Xylene	ND		100	13	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
sec-Butylbenzene	ND		100	37	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Tetrachloroethene	ND		100	13	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Toluene	ND		100	27	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Trichloroethene	ND		100	28	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Trichlorofluoromethane	ND		100	47	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Vinyl chloride	ND		100	34	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
Xylenes, Total	ND		200	55	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		09/19/16 17:19	09/21/16 23:07	1

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

Lab Sample ID: MB 480-321121/2-A
Matrix: Solid
Analysis Batch: 321585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		100	24	ug/Kg		09/19/16 17:19	09/21/16 23:07	1
tert-Butylbenzene	ND		100	28	ug/Kg		09/19/16 17:19	09/21/16 23:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 146*	*09/19/16 17:19*	*09/21/16 23:07*	*1*
4-Bromofluorobenzene (Surr)	*95*		*49 - 148*	*09/19/16 17:19*	*09/21/16 23:07*	*1*
Toluene-d8 (Surr)	*96*		*50 - 149*	*09/19/16 17:19*	*09/21/16 23:07*	*1*
Dibromofluoromethane (Surr)	*88*		*60 - 140*	*09/19/16 17:19*	*09/21/16 23:07*	*1*

Lab Sample ID: LCS 480-321121/1-A
Matrix: Solid
Analysis Batch: 321585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2450	2520		ug/Kg		103	68 - 130
1,1,2,2-Tetrachloroethane	2450	2530		ug/Kg		103	73 - 119
1,1,2-Trichloro-1,2,2-trifluoroethane	2450	2630		ug/Kg		107	10 - 179
1,1,2-Trichloroethane	2450	2430		ug/Kg		99	81 - 115
1,1-Dichloroethane	2450	2350		ug/Kg		96	78 - 121
1,1-Dichloroethene	2450	2490		ug/Kg		102	48 - 133
1,2,4-Trichlorobenzene	2450	2470		ug/Kg		101	70 - 140
1,2,4-Trimethylbenzene	2450	2810		ug/Kg		115	77 - 127
1,2-Dibromo-3-Chloropropane	2450	2260		ug/Kg		92	56 - 122
1,2-Dichlorobenzene	2450	2530		ug/Kg		103	78 - 125
1,2-Dichloroethane	2450	2290		ug/Kg		93	74 - 127
1,2-Dichloropropane	2450	2520		ug/Kg		103	81 - 115
1,3,5-Trimethylbenzene	2450	2760		ug/Kg		113	79 - 119
1,3-Dichlorobenzene	2450	2600		ug/Kg		106	82 - 114
1,4-Dichlorobenzene	2450	2530		ug/Kg		103	81 - 113
2-Butanone (MEK)	12300	9860		ug/Kg		80	54 - 149
2-Hexanone	12300	11400		ug/Kg		93	59 - 127
4-Isopropyltoluene	2450	2800		ug/Kg		114	82 - 119
4-Methyl-2-pentanone (MIBK)	12300	12000		ug/Kg		98	74 - 120
Acetone	12300	7720		ug/Kg		63	47 - 141
Benzene	2450	2430		ug/Kg		99	77 - 125
Bromoform	2450	2530		ug/Kg		103	48 - 125
Bromomethane	2450	1740		ug/Kg		71	39 - 149
Carbon disulfide	2450	2290		ug/Kg		93	40 - 136
Carbon tetrachloride	2450	2540		ug/Kg		104	54 - 135
Chlorobenzene	2450	2500		ug/Kg		102	76 - 126
Dibromochloromethane	2450	2630		ug/Kg		107	64 - 118
Chloroethane	2450	2020		ug/Kg		82	23 - 164
Chloroform	2450	2310		ug/Kg		94	78 - 118
Chloromethane	2450	2120		ug/Kg		87	61 - 124
cis-1,2-Dichloroethene	2450	2360		ug/Kg		96	79 - 124
Cyclohexane	2450	2680		ug/Kg		109	49 - 129
Bromodichloromethane	2450	2570		ug/Kg		105	71 - 121

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

Lab Sample ID: LCS 480-321121/1-A
Matrix: Solid
Analysis Batch: 321585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	2450	2000		ug/Kg		82	10 - 150
Ethylbenzene	2450	2640		ug/Kg		108	78 - 124
1,2-Dibromoethane	2450	2510		ug/Kg		102	81 - 119
Isopropylbenzene	2450	2850		ug/Kg		116	76 - 119
Methyl acetate	12300	11000		ug/Kg		89	71 - 123
Methyl tert-butyl ether	2450	2290		ug/Kg		94	67 - 137
Methylcyclohexane	2450	2650		ug/Kg		108	50 - 130
Methylene Chloride	2450	2410		ug/Kg		98	75 - 118
m,p-Xylene	2450	2610		ug/Kg		106	77 - 125
Naphthalene	2450	2620		ug/Kg		107	65 - 142
n-Butylbenzene	2450	2820		ug/Kg		115	81 - 119
N-Propylbenzene	2450	2800		ug/Kg		114	76 - 118
o-Xylene	2450	2620		ug/Kg		107	80 - 124
sec-Butylbenzene	2450	2810		ug/Kg		115	79 - 118
Tetrachloroethene	2450	2560		ug/Kg		104	73 - 133
Toluene	2450	2540		ug/Kg		104	75 - 124
trans-1,2-Dichloroethene	2450	2390		ug/Kg		98	74 - 129
trans-1,3-Dichloropropene	2450	2770		ug/Kg		113	73 - 118
Trichloroethene	2450	2620		ug/Kg		107	75 - 131
Trichlorofluoromethane	2450	2590		ug/Kg		106	29 - 158
Vinyl chloride	2450	2280		ug/Kg		93	59 - 124
cis-1,3-Dichloropropene	2450	2740		ug/Kg		112	75 - 121
Styrene	2450	2690		ug/Kg		110	84 - 119
tert-Butylbenzene	2450	2800		ug/Kg		114	78 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 146*
4-Bromofluorobenzene (Surr)	*96*		*49 - 148*
Toluene-d8 (Surr)	*99*		*50 - 149*
Dibromofluoromethane (Surr)	*95*		*60 - 140*

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

Lab Sample ID: MB 480-320403/1-A
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2-Chloronaphthalene	ND		170	28	ug/Kg		09/15/16 07:08	09/16/16 13:33	1

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

Lab Sample ID: MB 480-320403/1-A
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		170	31	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2-Methylnaphthalene	ND		170	34	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2-Methylphenol	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2-Nitroaniline	ND		330	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
2-Nitrophenol	ND		170	48	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
3-Nitroaniline	ND		330	47	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Chloroaniline	ND		170	42	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Methylphenol	ND		330	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Nitroaniline	ND		330	89	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
4-Nitrophenol	ND		330	120	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Acenaphthene	ND		170	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Acenaphthylene	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Acetophenone	ND		170	23	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Anthracene	ND		170	42	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Atrazine	ND		170	59	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzaldehyde	ND		170	130	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzo[a]anthracene	ND		170	17	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzo[a]pyrene	ND		170	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Caprolactam	ND		170	51	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Carbazole	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Chrysene	ND		170	38	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Dibenzofuran	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Diethyl phthalate	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Dimethyl phthalate	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Fluoranthene	ND		170	18	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Fluorene	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Hexachlorobenzene	ND		170	23	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Hexachlorobutadiene	ND		170	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Hexachloroethane	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Isophorone	ND		170	36	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		09/15/16 07:08	09/16/16 13:33	1

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

Lab Sample ID: MB 480-320403/1-A
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Naphthalene	ND		170	22	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Nitrobenzene	ND		170	19	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Pentachlorophenol	ND		330	170	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Phenanthrene	ND		170	25	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Phenol	ND		170	26	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Pyrene	ND		170	20	ug/Kg		09/15/16 07:08	09/16/16 13:33	1
Benzyl alcohol	ND		330	23	ug/Kg		09/15/16 07:08	09/16/16 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*111*		*39 - 146*	*09/15/16 07:08*	*09/16/16 13:33*	*1*
2-Fluorobiphenyl	*95*		*37 - 120*	*09/15/16 07:08*	*09/16/16 13:33*	*1*
2-Fluorophenol	*72*		*18 - 120*	*09/15/16 07:08*	*09/16/16 13:33*	*1*
Nitrobenzene-d5	*80*		*34 - 132*	*09/15/16 07:08*	*09/16/16 13:33*	*1*
p-Terphenyl-d14	*106*		*65 - 153*	*09/15/16 07:08*	*09/16/16 13:33*	*1*
Phenol-d5	*73*		*11 - 120*	*09/15/16 07:08*	*09/16/16 13:33*	*1*

Lab Sample ID: LCS 480-320403/2-A
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1650	1530		ug/Kg		93	71 - 120
bis (2-chloroisopropyl) ether	1650	951		ug/Kg		57	44 - 120
2,4,5-Trichlorophenol	1650	1640		ug/Kg		99	59 - 126
2,4,6-Trichlorophenol	1650	1740		ug/Kg		105	59 - 123
2,4-Dichlorophenol	1650	1610		ug/Kg		97	52 - 120
2,4-Dimethylphenol	1650	1520		ug/Kg		92	36 - 120
2,4-Dinitrophenol	3310	3200		ug/Kg		97	35 - 146
2,4-Dinitrotoluene	1650	1620		ug/Kg		98	55 - 125
2,6-Dinitrotoluene	1650	1600		ug/Kg		97	66 - 128
2-Chloronaphthalene	1650	1560		ug/Kg		94	57 - 120
2-Chlorophenol	1650	1380		ug/Kg		84	38 - 120
2-Methylnaphthalene	1650	1550		ug/Kg		94	47 - 120
2-Methylphenol	1650	1300		ug/Kg		78	48 - 120
2-Nitroaniline	1650	1380		ug/Kg		83	61 - 130
2-Nitrophenol	1650	1500		ug/Kg		91	50 - 120
3,3'-Dichlorobenzidine	3310	3060		ug/Kg		93	48 - 126
3-Nitroaniline	1650	1390		ug/Kg		84	61 - 127
4,6-Dinitro-2-methylphenol	3310	3390		ug/Kg		103	49 - 155
4-Bromophenyl phenyl ether	1650	1880		ug/Kg		114	58 - 131
4-Chloro-3-methylphenol	1650	1620		ug/Kg		98	49 - 125
4-Chloroaniline	1650	1290		ug/Kg		78	49 - 120
4-Chlorophenyl phenyl ether	1650	1670		ug/Kg		101	63 - 124
4-Methylphenol	1650	1340		ug/Kg		81	50 - 119
4-Nitroaniline	1650	1350		ug/Kg		82	63 - 128
4-Nitrophenol	3310	3110		ug/Kg		94	43 - 137
Acenaphthene	1650	1530		ug/Kg		92	53 - 120

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

Lab Sample ID: LCS 480-320403/2-A
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1650	1510		ug/Kg		91	58 - 121
Acetophenone	1650	1320		ug/Kg		80	66 - 120
Anthracene	1650	1620		ug/Kg		98	62 - 129
Atrazine	3310	3530		ug/Kg		107	60 - 164
Benzaldehyde	3310	1770		ug/Kg		53	21 - 120
Benzo[a]anthracene	1650	1610		ug/Kg		97	65 - 133
Benzo[a]pyrene	1650	1680		ug/Kg		101	64 - 127
Benzo[b]fluoranthene	1650	1560		ug/Kg		94	64 - 135
Benzo[g,h,i]perylene	1650	1710		ug/Kg		103	50 - 152
Benzo[k]fluoranthene	1650	1760		ug/Kg		106	58 - 138
Bis(2-chloroethoxy)methane	1650	1370		ug/Kg		83	61 - 133
Bis(2-chloroethyl)ether	1650	1220		ug/Kg		74	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1520		ug/Kg		92	61 - 133
Butyl benzyl phthalate	1650	1530		ug/Kg		93	61 - 129
Caprolactam	3310	2890		ug/Kg		87	54 - 133
Carbazole	1650	1550		ug/Kg		93	59 - 129
Chrysene	1650	1640		ug/Kg		99	64 - 131
Di-n-butyl phthalate	1650	1610		ug/Kg		98	58 - 130
Di-n-octyl phthalate	1650	1560		ug/Kg		94	62 - 133
Dibenz(a,h)anthracene	1650	1730		ug/Kg		105	54 - 148
Dibenzofuran	1650	1590		ug/Kg		96	56 - 120
Diethyl phthalate	1650	1540		ug/Kg		93	66 - 126
Dimethyl phthalate	1650	1660		ug/Kg		100	65 - 124
Fluoranthene	1650	1670		ug/Kg		101	62 - 131
Fluorene	1650	1510		ug/Kg		91	63 - 126
Hexachlorobenzene	1650	1960		ug/Kg		119	60 - 132
Hexachlorobutadiene	1650	1750		ug/Kg		106	45 - 120
Hexachlorocyclopentadiene	1650	1560		ug/Kg		94	31 - 120
Hexachloroethane	1650	1260		ug/Kg		76	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1720		ug/Kg		104	56 - 149
Isophorone	1650	1400		ug/Kg		84	56 - 120
N-Nitrosodi-n-propylamine	1650	1250		ug/Kg		75	46 - 120
N-Nitrosodiphenylamine	1650	1520		ug/Kg		92	20 - 119
Naphthalene	1650	1450		ug/Kg		88	46 - 120
Nitrobenzene	1650	1320		ug/Kg		80	49 - 120
Pentachlorophenol	3310	3400		ug/Kg		103	33 - 136
Phenanthrene	1650	1610		ug/Kg		97	60 - 130
Phenol	1650	1240		ug/Kg		75	36 - 120
Pyrene	1650	1590		ug/Kg		96	51 - 133
Benzyl alcohol	1650	1320		ug/Kg		80	15 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*129*		*39 - 146*
2-Fluorobiphenyl	*94*		*37 - 120*
2-Fluorophenol	*75*		*18 - 120*
Nitrobenzene-d5	*83*		*34 - 132*
p-Terphenyl-d14	*97*		*65 - 153*
Phenol-d5	*75*		*11 - 120*

Lab Sample ID: 480-105899-1 MS
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	ND		1740	1510		ug/Kg	☼	86	71 - 120
bis (2-chloroisopropyl) ether	ND	F1	1740	822	J	ug/Kg	☼	47	44 - 120
2,4,5-Trichlorophenol	ND		1740	1620		ug/Kg	☼	93	59 - 126
2,4,6-Trichlorophenol	ND		1740	1690		ug/Kg	☼	97	59 - 123
2,4-Dichlorophenol	ND		1740	1600		ug/Kg	☼	92	52 - 120
2,4-Dimethylphenol	ND		1740	1470		ug/Kg	☼	84	36 - 120
2,4-Dinitrophenol	ND		3490	ND		ug/Kg	☼	NC	35 - 146
2,4-Dinitrotoluene	ND		1740	1770		ug/Kg	☼	102	55 - 125
2,6-Dinitrotoluene	ND		1740	1550		ug/Kg	☼	89	66 - 128
2-Chloronaphthalene	ND		1740	1510		ug/Kg	☼	87	57 - 120
2-Chlorophenol	ND		1740	1340		ug/Kg	☼	77	38 - 120
2-Methylnaphthalene	ND		1740	1580		ug/Kg	☼	91	47 - 120
2-Methylphenol	ND		1740	1310		ug/Kg	☼	75	48 - 120
2-Nitroaniline	ND		1740	1440	J	ug/Kg	☼	82	61 - 130
2-Nitrophenol	ND		1740	1660		ug/Kg	☼	95	50 - 120
3,3'-Dichlorobenzidine	ND		3490	3200		ug/Kg	☼	92	48 - 126
3-Nitroaniline	ND		1740	1490	J	ug/Kg	☼	85	61 - 127
4,6-Dinitro-2-methylphenol	ND		3490	3450		ug/Kg	☼	99	49 - 155
4-Bromophenyl phenyl ether	ND		1740	1920		ug/Kg	☼	110	58 - 131
4-Chloro-3-methylphenol	ND		1740	1530		ug/Kg	☼	88	49 - 125
4-Chloroaniline	ND		1740	1200		ug/Kg	☼	69	49 - 120
4-Chlorophenyl phenyl ether	ND		1740	1730		ug/Kg	☼	99	63 - 124
4-Methylphenol	ND		1740	1410	J	ug/Kg	☼	81	50 - 119
4-Nitroaniline	ND		1740	1400	J	ug/Kg	☼	80	63 - 128
4-Nitrophenol	ND		3490	3020		ug/Kg	☼	87	43 - 137
Acenaphthene	ND		1740	1620		ug/Kg	☼	93	53 - 120
Acenaphthylene	ND		1740	1520		ug/Kg	☼	87	58 - 121
Acetophenone	ND		1740	1300		ug/Kg	☼	75	66 - 120
Anthracene	260	J	1740	1790		ug/Kg	☼	88	62 - 129
Atrazine	ND		3490	3500		ug/Kg	☼	100	60 - 164
Benzaldehyde	ND		3490	1640		ug/Kg	☼	47	21 - 120
Benzo[a]anthracene	880		1740	2320		ug/Kg	☼	83	65 - 133
Benzo[a]pyrene	970		1740	2350		ug/Kg	☼	79	64 - 127
Benzo[b]fluoranthene	1200		1740	2370		ug/Kg	☼	65	64 - 135
Benzo[g,h,i]perylene	750	J	1740	2170		ug/Kg	☼	81	50 - 152
Benzo[k]fluoranthene	410	J	1740	2090		ug/Kg	☼	97	58 - 138
Bis(2-chloroethoxy)methane	ND		1740	1320		ug/Kg	☼	76	61 - 133
Bis(2-chloroethyl)ether	ND		1740	1140		ug/Kg	☼	65	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1740	1660		ug/Kg	☼	95	61 - 133
Butyl benzyl phthalate	370	J	1740	1680		ug/Kg	☼	76	61 - 129
Caprolactam	ND		3490	2960		ug/Kg	☼	85	54 - 133
Carbazole	ND		1740	1640		ug/Kg	☼	94	59 - 129
Chrysene	1100		1740	2400		ug/Kg	☼	76	64 - 131
Di-n-butyl phthalate	ND		1740	1610		ug/Kg	☼	93	58 - 130
Di-n-octyl phthalate	ND		1740	1690		ug/Kg	☼	97	62 - 133
Dibenz(a,h)anthracene	ND		1740	1660		ug/Kg	☼	95	54 - 148
Dibenzofuran	ND		1740	1650		ug/Kg	☼	95	56 - 120
Diethyl phthalate	ND		1740	1600		ug/Kg	☼	92	66 - 126
Dimethyl phthalate	ND		1740	1620		ug/Kg	☼	93	65 - 124
Fluoranthene	2000		1740	3210		ug/Kg	☼	67	62 - 131

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

Lab Sample ID: 480-105899-1 MS
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	ND		1740	1670		ug/Kg	☼	96	63 - 126
Hexachlorobenzene	ND		1740	1990		ug/Kg	☼	114	60 - 132
Hexachlorobutadiene	ND		1740	1840		ug/Kg	☼	106	45 - 120
Hexachlorocyclopentadiene	ND		1740	1190		ug/Kg	☼	68	31 - 120
Hexachloroethane	ND		1740	1190		ug/Kg	☼	68	41 - 120
Indeno[1,2,3-cd]pyrene	640	J	1740	2110		ug/Kg	☼	85	56 - 149
Isophorone	ND		1740	1370		ug/Kg	☼	78	56 - 120
N-Nitrosodi-n-propylamine	ND		1740	1230		ug/Kg	☼	71	46 - 120
N-Nitrosodiphenylamine	ND		1740	1640		ug/Kg	☼	94	20 - 119
Naphthalene	ND		1740	1550		ug/Kg	☼	89	46 - 120
Nitrobenzene	ND		1740	1320		ug/Kg	☼	76	49 - 120
Pentachlorophenol	ND		3490	3090		ug/Kg	☼	88	33 - 136
Phenanthrene	1100		1740	2360		ug/Kg	☼	70	60 - 130
Phenol	ND		1740	1220		ug/Kg	☼	70	36 - 120
Pyrene	1600		1740	2820		ug/Kg	☼	67	51 - 133
Benzyl alcohol	ND		1740	1290	J	ug/Kg	☼	74	15 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*125*		*39 - 146*
2-Fluorobiphenyl	*88*		*37 - 120*
2-Fluorophenol	*67*		*18 - 120*
Nitrobenzene-d5	*78*		*34 - 132*
p-Terphenyl-d14	*90*		*65 - 153*
Phenol-d5	*74*		*11 - 120*

Lab Sample ID: 480-105899-1 MSD
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biphenyl	ND		1720	1420		ug/Kg	☼	83	71 - 120	6	20
bis (2-chloroisopropyl) ether	ND	F1	1720	730	J F1	ug/Kg	☼	43	44 - 120	12	24
2,4,5-Trichlorophenol	ND		1720	1560		ug/Kg	☼	91	59 - 126	4	18
2,4,6-Trichlorophenol	ND		1720	1630		ug/Kg	☼	95	59 - 123	3	19
2,4-Dichlorophenol	ND		1720	1520		ug/Kg	☼	89	52 - 120	5	19
2,4-Dimethylphenol	ND		1720	1400		ug/Kg	☼	82	36 - 120	4	42
2,4-Dinitrophenol	ND		3430	ND		ug/Kg	☼	NC	35 - 146	NC	22
2,4-Dinitrotoluene	ND		1720	1540		ug/Kg	☼	90	55 - 125	14	20
2,6-Dinitrotoluene	ND		1720	1660		ug/Kg	☼	97	66 - 128	7	15
2-Chloronaphthalene	ND		1720	1450		ug/Kg	☼	85	57 - 120	4	21
2-Chlorophenol	ND		1720	1280		ug/Kg	☼	74	38 - 120	4	25
2-Methylnaphthalene	ND		1720	1530		ug/Kg	☼	89	47 - 120	4	21
2-Methylphenol	ND		1720	1260		ug/Kg	☼	73	48 - 120	4	27
2-Nitroaniline	ND		1720	1300	J	ug/Kg	☼	76	61 - 130	10	15
2-Nitrophenol	ND		1720	1440		ug/Kg	☼	84	50 - 120	15	18
3,3'-Dichlorobenzidine	ND		3430	3080		ug/Kg	☼	90	48 - 126	4	25
3-Nitroaniline	ND		1720	1380	J	ug/Kg	☼	80	61 - 127	7	19
4,6-Dinitro-2-methylphenol	ND		3430	3230		ug/Kg	☼	94	49 - 155	7	15

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

Lab Sample ID: 480-105899-1 MSD
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320403

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Bromophenyl phenyl ether	ND		1720	1750		ug/Kg	☼	102	58 - 131	9	15
4-Chloro-3-methylphenol	ND		1720	1490		ug/Kg	☼	87	49 - 125	3	27
4-Chloroaniline	ND		1720	1130		ug/Kg	☼	66	49 - 120	6	22
4-Chlorophenyl phenyl ether	ND		1720	1590		ug/Kg	☼	93	63 - 124	9	16
4-Methylphenol	ND		1720	1260	J	ug/Kg	☼	73	50 - 119	12	24
4-Nitroaniline	ND		1720	1400	J	ug/Kg	☼	82	63 - 128	1	24
4-Nitrophenol	ND		3430	2980		ug/Kg	☼	87	43 - 137	2	25
Acenaphthene	ND		1720	1480		ug/Kg	☼	86	53 - 120	9	35
Acenaphthylene	ND		1720	1490		ug/Kg	☼	87	58 - 121	2	18
Acetophenone	ND		1720	1280		ug/Kg	☼	75	66 - 120	1	20
Anthracene	260	J	1720	1700		ug/Kg	☼	84	62 - 129	5	15
Atrazine	ND		3430	3490		ug/Kg	☼	102	60 - 164	0	20
Benzaldehyde	ND		3430	1590		ug/Kg	☼	46	21 - 120	3	20
Benzo[a]anthracene	880		1720	2370		ug/Kg	☼	87	65 - 133	2	15
Benzo[a]pyrene	970		1720	2400		ug/Kg	☼	83	64 - 127	2	15
Benzo[b]fluoranthene	1200		1720	2680		ug/Kg	☼	84	64 - 135	12	15
Benzo[g,h,i]perylene	750	J	1720	2250		ug/Kg	☼	87	50 - 152	4	15
Benzo[k]fluoranthene	410	J	1720	1880		ug/Kg	☼	86	58 - 138	11	22
Bis(2-chloroethoxy)methane	ND		1720	1290		ug/Kg	☼	75	61 - 133	2	17
Bis(2-chloroethyl)ether	ND		1720	1050		ug/Kg	☼	61	45 - 120	8	21
Bis(2-ethylhexyl) phthalate	ND		1720	1620		ug/Kg	☼	94	61 - 133	2	15
Butyl benzyl phthalate	370	J	1720	1680		ug/Kg	☼	76	61 - 129	0	16
Caprolactam	ND		3430	2890		ug/Kg	☼	84	54 - 133	3	20
Carbazole	ND		1720	1550		ug/Kg	☼	90	59 - 129	6	20
Chrysene	1100		1720	2380		ug/Kg	☼	76	64 - 131	1	15
Di-n-butyl phthalate	ND		1720	1610		ug/Kg	☼	94	58 - 130	0	15
Di-n-octyl phthalate	ND		1720	1700		ug/Kg	☼	99	62 - 133	0	16
Dibenz(a,h)anthracene	ND		1720	1760		ug/Kg	☼	102	54 - 148	5	15
Dibenzofuran	ND		1720	1560		ug/Kg	☼	91	56 - 120	6	15
Diethyl phthalate	ND		1720	1540		ug/Kg	☼	90	66 - 126	4	15
Dimethyl phthalate	ND		1720	1480		ug/Kg	☼	86	65 - 124	9	15
Fluoranthene	2000		1720	3340		ug/Kg	☼	76	62 - 131	4	15
Fluorene	ND		1720	1590		ug/Kg	☼	93	63 - 126	5	15
Hexachlorobenzene	ND		1720	1770		ug/Kg	☼	103	60 - 132	12	15
Hexachlorobutadiene	ND		1720	1600		ug/Kg	☼	93	45 - 120	14	44
Hexachlorocyclopentadiene	ND		1720	1020		ug/Kg	☼	60	31 - 120	15	49
Hexachloroethane	ND		1720	1180		ug/Kg	☼	69	41 - 120	1	46
Indeno[1,2,3-cd]pyrene	640	J	1720	2110		ug/Kg	☼	86	56 - 149	0	15
Isophorone	ND		1720	1310		ug/Kg	☼	76	56 - 120	4	17
N-Nitrosodi-n-propylamine	ND		1720	1200		ug/Kg	☼	70	46 - 120	3	31
N-Nitrosodiphenylamine	ND		1720	1500		ug/Kg	☼	88	20 - 119	8	15
Naphthalene	ND		1720	1440		ug/Kg	☼	84	46 - 120	7	29
Nitrobenzene	ND		1720	1180		ug/Kg	☼	69	49 - 120	11	24
Pentachlorophenol	ND		3430	2900		ug/Kg	☼	85	33 - 136	6	35
Phenanthrene	1100		1720	2290		ug/Kg	☼	67	60 - 130	3	15
Phenol	ND		1720	1160		ug/Kg	☼	67	36 - 120	5	35
Pyrene	1600		1720	2840		ug/Kg	☼	70	51 - 133	1	35
Benzyl alcohol	ND		1720	1160	J	ug/Kg	☼	68	15 - 145	10	34

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

Lab Sample ID: 480-105899-1 MSD
Matrix: Solid
Analysis Batch: 320667

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320403

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*113*		*39 - 146*
2-Fluorobiphenyl	*87*		*37 - 120*
2-Fluorophenol	*64*		*18 - 120*
Nitrobenzene-d5	*71*		*34 - 132*
p-Terphenyl-d14	*89*		*65 - 153*
Phenol-d5	*67*		*11 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-320399/1-A
Matrix: Solid
Analysis Batch: 321458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Aldrin	ND		1.7	0.41	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
alpha-BHC	0.414	J	1.7	0.30	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
alpha-Chlordane	ND		1.7	0.83	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
beta-BHC	ND		1.7	0.30	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
delta-BHC	ND		1.7	0.31	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Dieldrin	ND		1.7	0.40	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endosulfan I	ND		1.7	0.32	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endosulfan II	ND		1.7	0.30	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endrin	ND		1.7	0.33	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endrin aldehyde	ND		1.7	0.42	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Endrin ketone	ND		1.7	0.41	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
gamma-BHC (Lindane)	ND		1.7	0.30	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
gamma-Chlordane	ND		1.7	0.53	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Heptachlor	ND		1.7	0.36	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Methoxychlor	ND		1.7	0.34	ug/Kg		09/15/16 06:36	09/21/16 11:42	1
Toxaphene	ND		17	9.7	ug/Kg		09/15/16 06:36	09/21/16 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*09/15/16 06:36*	*09/21/16 11:42*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*09/15/16 06:36*	*09/21/16 11:42*	*1*

Lab Sample ID: LCS 480-320399/2-A
Matrix: Solid
Analysis Batch: 321458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.4	11.6		ug/Kg		71	56 - 120
4,4'-DDE	16.4	10.4		ug/Kg		63	44 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-320399/2-A
Matrix: Solid
Analysis Batch: 321458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDT	16.4	12.8		ug/Kg		78	38 - 120
Aldrin	16.4	9.57		ug/Kg		58	38 - 120
alpha-BHC	16.4	8.81		ug/Kg		54	39 - 120
alpha-Chlordane	16.4	9.74		ug/Kg		59	47 - 120
beta-BHC	16.4	9.61		ug/Kg		59	40 - 120
delta-BHC	16.4	10.5		ug/Kg		64	45 - 120
Dieldrin	16.4	12.1		ug/Kg		73	58 - 120
Endosulfan I	16.4	10.8		ug/Kg		66	49 - 120
Endosulfan II	16.4	11.0		ug/Kg		67	55 - 120
Endosulfan sulfate	16.4	13.6		ug/Kg		83	49 - 124
Endrin	16.4	13.8		ug/Kg		84	58 - 120
Endrin aldehyde	16.4	12.2		ug/Kg		74	37 - 121
Endrin ketone	16.4	13.4		ug/Kg		82	46 - 123
gamma-BHC (Lindane)	16.4	9.33		ug/Kg		57	50 - 120
gamma-Chlordane	16.4	10.3		ug/Kg		63	48 - 120
Heptachlor	16.4	11.4		ug/Kg		70	50 - 120
Heptachlor epoxide	16.4	11.2		ug/Kg		68	50 - 120
Methoxychlor	16.4	15.4		ug/Kg		94	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*62*		*45 - 120*
Tetrachloro-m-xylene	*60*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-320405/1-A
Matrix: Solid
Analysis Batch: 320546

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.20	0.040	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1221	ND		0.20	0.040	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1232	ND		0.20	0.040	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1242	ND		0.20	0.040	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1248	ND		0.20	0.040	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1254	ND		0.20	0.096	mg/Kg		09/15/16 07:21	09/15/16 16:42	1
PCB-1260	ND		0.20	0.096	mg/Kg		09/15/16 07:21	09/15/16 16:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*132*		*60 - 154*	*09/15/16 07:21*	*09/15/16 16:42*	*1*
DCB Decachlorobiphenyl	*138*		*65 - 174*	*09/15/16 07:21*	*09/15/16 16:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-320405/2-A
Matrix: Solid
Analysis Batch: 320546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2.16	2.89		mg/Kg		134	51 - 185
PCB-1260	2.16	3.33		mg/Kg		154	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*148*		*60 - 154*
DCB Decachlorobiphenyl	*151*		*65 - 174*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-320492/1-A
Matrix: Solid
Analysis Batch: 320834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.8	0.37	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Barium	ND		0.46	0.10	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Cadmium	ND		0.18	0.028	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Chromium	ND		0.46	0.18	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Lead	ND		0.92	0.22	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Selenium	ND		3.7	0.37	mg/Kg		09/15/16 12:27	09/16/16 13:11	1
Silver	ND		0.55	0.18	mg/Kg		09/15/16 12:27	09/16/16 13:11	1

Lab Sample ID: LCSSRM 480-320492/2-A
Matrix: Solid
Analysis Batch: 320834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320492

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	221	203.9		mg/Kg		92.2	71.0 - 133.5
Barium	428	409.3		mg/Kg		95.6	74.3 - 125.5
Cadmium	126	113.1		mg/Kg		89.7	73.3 - 126.2
Chromium	74.7	75.36		mg/Kg		100.9	68.5 - 131.3
Lead	76.9	87.30		mg/Kg		113.5	68.8 - 131.3
Selenium	111	97.25		mg/Kg		87.6	65.7 - 134.2
Silver	59.6	57.23		mg/Kg		96.0	66.8 - 133.1

Lab Sample ID: 480-105899-1 MS
Matrix: Solid
Analysis Batch: 320834

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320492

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.7		45.2	45.26		mg/Kg	☼	92	75 - 125
Barium	59.9	F1	45.2	91.57	F1	mg/Kg	☼	70	75 - 125
Cadmium	0.41		45.2	42.86		mg/Kg	☼	94	75 - 125

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

Lab Sample ID: 480-105899-1 MS — **Client Sample ID: KU-TP-C-S**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320834 — **Prep Batch: 320492**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	11.6		45.2	51.93		mg/Kg	☼	89	75 - 125
Lead	99.2	F1 F2	45.2	102.8	F1	mg/Kg	☼	8	75 - 125
Selenium	ND		45.2	39.61		mg/Kg	☼	88	75 - 125
Silver	0.24	J	11.3	11.52		mg/Kg	☼	100	75 - 125

Lab Sample ID: 480-105899-1 MSD — **Client Sample ID: KU-TP-C-S**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320834 — **Prep Batch: 320492**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.7		40.7	40.58		mg/Kg	☼	90	75 - 125	11	20
Barium	59.9	F1	40.7	103.3		mg/Kg	☼	106	75 - 125	12	20
Cadmium	0.41		40.7	37.20		mg/Kg	☼	90	75 - 125	14	20
Chromium	11.6		40.7	49.87		mg/Kg	☼	94	75 - 125	4	20
Lead	99.2	F1 F2	40.7	150.3	F2	mg/Kg	☼	125	75 - 125	38	20
Selenium	ND		40.7	34.17		mg/Kg	☼	84	75 - 125	15	20
Silver	0.24	J	10.2	9.72		mg/Kg	☼	93	75 - 125	17	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-320443/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320691 — **Prep Batch: 320443**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0079	mg/Kg		09/15/16 09:45	09/16/16 07:27	1

Lab Sample ID: LCSSRM 480-320443/2-A ^5 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320691 — **Prep Batch: 320443**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	7.10	6.63		mg/Kg		93.3	51.3 - 149.3

Lab Sample ID: MB 480-320444/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320691 — **Prep Batch: 320444**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019	0.0078	mg/Kg		09/15/16 09:45	09/16/16 08:14	1

Lab Sample ID: LCSSRM 480-320444/2-A ^5 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 320691 — **Prep Batch: 320444**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	7.10	6.82		mg/Kg		96.1	51.3 - 149.3

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-320508/1-A
Matrix: Solid
Analysis Batch: 320788

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.0	0.48	mg/Kg		09/15/16 12:00	09/16/16 15:06	1

Lab Sample ID: LCSSRM 480-320508/2-A
Matrix: Solid
Analysis Batch: 320788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320508

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			39.6	42.50		mg/Kg		107.3	33.3 - 195.2		

Lab Sample ID: 480-105899-1 MS
Matrix: Solid
Analysis Batch: 320788

Client Sample ID: KU-TP-C-S
Prep Type: Total/NA
Prep Batch: 320508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	ND		9.47	9.17		mg/Kg	☼	97	85 - 115		

GC/MS VOA

Analysis Batch: 320367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	8260C	320370
480-105899-2	KU-TP-E-S	Total/NA	Solid	8260C	320370
480-105899-3	KU-TP-G-S	Total/NA	Solid	8260C	320370
480-105899-4	KU-TP-J-S	Total/NA	Solid	8260C	320370
480-105899-5	KU-TP-L-S	Total/NA	Solid	8260C	320370
480-105899-6	KU-TP-N-S	Total/NA	Solid	8260C	320370
MB 480-320370/2-A	Method Blank	Total/NA	Solid	8260C	320370
LCS 480-320370/1-A	Lab Control Sample	Total/NA	Solid	8260C	320370
480-105899-6 MS	KU-TP-N-S	Total/NA	Solid	8260C	320370
480-105899-6 MSD	KU-TP-N-S	Total/NA	Solid	8260C	320370

Prep Batch: 320370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	5035A	
480-105899-2	KU-TP-E-S	Total/NA	Solid	5035A	
480-105899-3	KU-TP-G-S	Total/NA	Solid	5035A	
480-105899-4	KU-TP-J-S	Total/NA	Solid	5035A	
480-105899-5	KU-TP-L-S	Total/NA	Solid	5035A	
480-105899-6	KU-TP-N-S	Total/NA	Solid	5035A	
MB 480-320370/2-A	Method Blank	Total/NA	Solid	5035A	
LCS 480-320370/1-A	Lab Control Sample	Total/NA	Solid	5035A	
480-105899-6 MS	KU-TP-N-S	Total/NA	Solid	5035A	
480-105899-6 MSD	KU-TP-N-S	Total/NA	Solid	5035A	

Prep Batch: 321121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-3 - DL	KU-TP-G-S	Total/NA	Solid	5035A	
MB 480-321121/2-A	Method Blank	Total/NA	Solid	5035A	
LCS 480-321121/1-A	Lab Control Sample	Total/NA	Solid	5035A	

Analysis Batch: 321585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-3 - DL	KU-TP-G-S	Total/NA	Solid	8260C	321121
MB 480-321121/2-A	Method Blank	Total/NA	Solid	8260C	321121
LCS 480-321121/1-A	Lab Control Sample	Total/NA	Solid	8260C	321121

GC/MS Semi VOA

Prep Batch: 320403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	3550C	
480-105899-2	KU-TP-E-S	Total/NA	Solid	3550C	
480-105899-3	KU-TP-G-S	Total/NA	Solid	3550C	
480-105899-4	KU-TP-J-S	Total/NA	Solid	3550C	
480-105899-5	KU-TP-L-S	Total/NA	Solid	3550C	
480-105899-6	KU-TP-N-S	Total/NA	Solid	3550C	
MB 480-320403/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-320403/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	3550C	
480-105899-1 MSD	KU-TP-C-S	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Analysis Batch: 320667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	8270D	320403
480-105899-2	KU-TP-E-S	Total/NA	Solid	8270D	320403
480-105899-3	KU-TP-G-S	Total/NA	Solid	8270D	320403
480-105899-4	KU-TP-J-S	Total/NA	Solid	8270D	320403
480-105899-5	KU-TP-L-S	Total/NA	Solid	8270D	320403
480-105899-6	KU-TP-N-S	Total/NA	Solid	8270D	320403
MB 480-320403/1-A	Method Blank	Total/NA	Solid	8270D	320403
LCS 480-320403/2-A	Lab Control Sample	Total/NA	Solid	8270D	320403
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	8270D	320403
480-105899-1 MSD	KU-TP-C-S	Total/NA	Solid	8270D	320403

GC Semi VOA

Prep Batch: 320399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	3550C	
480-105899-2	KU-TP-E-S	Total/NA	Solid	3550C	
480-105899-3	KU-TP-G-S	Total/NA	Solid	3550C	
480-105899-4	KU-TP-J-S	Total/NA	Solid	3550C	
480-105899-5	KU-TP-L-S	Total/NA	Solid	3550C	
480-105899-6	KU-TP-N-S	Total/NA	Solid	3550C	
MB 480-320399/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-320399/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 320405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	3550C	
480-105899-2	KU-TP-E-S	Total/NA	Solid	3550C	
480-105899-3	KU-TP-G-S	Total/NA	Solid	3550C	
480-105899-4	KU-TP-J-S	Total/NA	Solid	3550C	
480-105899-5	KU-TP-L-S	Total/NA	Solid	3550C	
480-105899-6	KU-TP-N-S	Total/NA	Solid	3550C	
MB 480-320405/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-320405/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 320546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	8082A	320405
480-105899-2	KU-TP-E-S	Total/NA	Solid	8082A	320405
480-105899-3	KU-TP-G-S	Total/NA	Solid	8082A	320405
480-105899-4	KU-TP-J-S	Total/NA	Solid	8082A	320405
480-105899-5	KU-TP-L-S	Total/NA	Solid	8082A	320405
480-105899-6	KU-TP-N-S	Total/NA	Solid	8082A	320405
MB 480-320405/1-A	Method Blank	Total/NA	Solid	8082A	320405
LCS 480-320405/2-A	Lab Control Sample	Total/NA	Solid	8082A	320405

Analysis Batch: 321458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	8081B	320399
480-105899-2	KU-TP-E-S	Total/NA	Solid	8081B	320399

GC Semi VOA (Continued)

Analysis Batch: 321458 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-3	KU-TP-G-S	Total/NA	Solid	8081B	320399
480-105899-4	KU-TP-J-S	Total/NA	Solid	8081B	320399
480-105899-5	KU-TP-L-S	Total/NA	Solid	8081B	320399
480-105899-6	KU-TP-N-S	Total/NA	Solid	8081B	320399
MB 480-320399/1-A	Method Blank	Total/NA	Solid	8081B	320399
LCS 480-320399/2-A	Lab Control Sample	Total/NA	Solid	8081B	320399

Metals

Prep Batch: 320443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-6	KU-TP-N-S	Total/NA	Solid	7471B	
MB 480-320443/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-320443/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 320444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	7471B	
480-105899-2	KU-TP-E-S	Total/NA	Solid	7471B	
480-105899-3	KU-TP-G-S	Total/NA	Solid	7471B	
480-105899-4	KU-TP-J-S	Total/NA	Solid	7471B	
480-105899-5	KU-TP-L-S	Total/NA	Solid	7471B	
MB 480-320444/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-320444/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 320492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	3050B	
480-105899-2	KU-TP-E-S	Total/NA	Solid	3050B	
480-105899-3	KU-TP-G-S	Total/NA	Solid	3050B	
480-105899-4	KU-TP-J-S	Total/NA	Solid	3050B	
480-105899-5	KU-TP-L-S	Total/NA	Solid	3050B	
480-105899-6	KU-TP-N-S	Total/NA	Solid	3050B	
MB 480-320492/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-320492/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	3050B	
480-105899-1 MSD	KU-TP-C-S	Total/NA	Solid	3050B	

Analysis Batch: 320691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	7471B	320444
480-105899-2	KU-TP-E-S	Total/NA	Solid	7471B	320444
480-105899-3	KU-TP-G-S	Total/NA	Solid	7471B	320444
480-105899-4	KU-TP-J-S	Total/NA	Solid	7471B	320444
480-105899-5	KU-TP-L-S	Total/NA	Solid	7471B	320444
480-105899-6	KU-TP-N-S	Total/NA	Solid	7471B	320443
MB 480-320443/1-A	Method Blank	Total/NA	Solid	7471B	320443
MB 480-320444/1-A	Method Blank	Total/NA	Solid	7471B	320444
LCSSRM 480-320443/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	320443
LCSSRM 480-320444/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	320444

Metals (Continued)

Analysis Batch: 320834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	6010C	320492
480-105899-2	KU-TP-E-S	Total/NA	Solid	6010C	320492
480-105899-3	KU-TP-G-S	Total/NA	Solid	6010C	320492
480-105899-4	KU-TP-J-S	Total/NA	Solid	6010C	320492
480-105899-5	KU-TP-L-S	Total/NA	Solid	6010C	320492
480-105899-6	KU-TP-N-S	Total/NA	Solid	6010C	320492
MB 480-320492/1-A	Method Blank	Total/NA	Solid	6010C	320492
LCSSRM 480-320492/2-A	Lab Control Sample	Total/NA	Solid	6010C	320492
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	6010C	320492
480-105899-1 MSD	KU-TP-C-S	Total/NA	Solid	6010C	320492

General Chemistry

Analysis Batch: 320375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	Moisture	
480-105899-2	KU-TP-E-S	Total/NA	Solid	Moisture	
480-105899-3	KU-TP-G-S	Total/NA	Solid	Moisture	
480-105899-4	KU-TP-J-S	Total/NA	Solid	Moisture	
480-105899-5	KU-TP-L-S	Total/NA	Solid	Moisture	
480-105899-6	KU-TP-N-S	Total/NA	Solid	Moisture	

Prep Batch: 320508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	9012B	
480-105899-2	KU-TP-E-S	Total/NA	Solid	9012B	
480-105899-3	KU-TP-G-S	Total/NA	Solid	9012B	
480-105899-4	KU-TP-J-S	Total/NA	Solid	9012B	
480-105899-5	KU-TP-L-S	Total/NA	Solid	9012B	
480-105899-6	KU-TP-N-S	Total/NA	Solid	9012B	
MB 480-320508/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-320508/2-A	Lab Control Sample	Total/NA	Solid	9012B	
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	9012B	

Analysis Batch: 320788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-105899-1	KU-TP-C-S	Total/NA	Solid	9012B	320508
480-105899-2	KU-TP-E-S	Total/NA	Solid	9012B	320508
480-105899-3	KU-TP-G-S	Total/NA	Solid	9012B	320508
480-105899-4	KU-TP-J-S	Total/NA	Solid	9012B	320508
480-105899-5	KU-TP-L-S	Total/NA	Solid	9012B	320508
480-105899-6	KU-TP-N-S	Total/NA	Solid	9012B	320508
MB 480-320508/1-A	Method Blank	Total/NA	Solid	9012B	320508
LCSSRM 480-320508/2-A	Lab Control Sample	Total/NA	Solid	9012B	320508
480-105899-1 MS	KU-TP-C-S	Total/NA	Solid	9012B	320508

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 18:29	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-C-S
Date Collected: 09/12/16 08:45
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-1
Matrix: Solid
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 05:44	CDC	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:08	CAM	TAL BUF
Total/NA	Analysis	8270D		5	320667	09/16/16 15:18	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		5	321458	09/21/16 13:39	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF
Total/NA	Analysis	6010C		1	320834	09/16/16 13:28	LMH	TAL BUF
Total/NA	Prep	7471B			320444	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:53	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:09	KRT	TAL BUF

Client Sample ID: KU-TP-E-S
Date Collected: 09/12/16 10:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 18:44	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-E-S
Date Collected: 09/12/16 10:55
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-2
Matrix: Solid
Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 06:09	CDC	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:08	CAM	TAL BUF
Total/NA	Analysis	8270D		1	320667	09/16/16 15:44	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		5	321458	09/21/16 13:59	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF

Client Sample ID: KU-TP-E-S

Lab Sample ID: 480-105899-2
Date Collected: 09/12/16 10:55
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	320834	09/16/16 13:45	LMH	TAL BUF
Total/NA	Prep	7471B			320444	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:55	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:15	KRT	TAL BUF

Client Sample ID: KU-TP-G-S

Lab Sample ID: 480-105899-3
Date Collected: 09/12/16 09:25
Matrix: Solid
Date Received: 09/14/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 19:00	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-G-S

Lab Sample ID: 480-105899-3
Date Collected: 09/12/16 09:25
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 06:35	CDC	TAL BUF
Total/NA	Prep	5035A	DL		321121	09/19/16 17:19	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	2	321585	09/22/16 01:47	LCH	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:13	CAM	TAL BUF
Total/NA	Analysis	8270D		5	320667	09/16/16 16:11	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		10	321458	09/21/16 14:18	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF
Total/NA	Analysis	6010C		1	320834	09/16/16 13:49	LMH	TAL BUF
Total/NA	Prep	7471B			320444	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:56	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:16	KRT	TAL BUF

Client Sample ID: KU-TP-J-S

Lab Sample ID: 480-105899-4
Date Collected: 09/12/16 13:15
Matrix: Solid
Date Received: 09/14/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 19:15	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-J-S

Lab Sample ID: 480-105899-4
Date Collected: 09/12/16 13:15
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 07:01	CDC	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:13	CAM	TAL BUF
Total/NA	Analysis	8270D		5	320667	09/16/16 16:37	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		10	321458	09/21/16 14:38	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF
Total/NA	Analysis	6010C		1	320834	09/16/16 14:06	LMH	TAL BUF
Total/NA	Prep	7471B			320444	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:58	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:18	KRT	TAL BUF

Client Sample ID: KU-TP-L-S

Lab Sample ID: 480-105899-5
Date Collected: 09/12/16 13:55
Matrix: Solid
Date Received: 09/14/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 19:31	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-L-S

Lab Sample ID: 480-105899-5
Date Collected: 09/12/16 13:55
Matrix: Solid
Date Received: 09/14/16 10:15
Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 07:27	CDC	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:13	CAM	TAL BUF
Total/NA	Analysis	8270D		5	320667	09/16/16 17:04	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		2	321458	09/21/16 14:57	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF
Total/NA	Analysis	6010C		1	320834	09/16/16 14:09	LMH	TAL BUF
Total/NA	Prep	7471B			320444	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:59	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:19	KRT	TAL BUF

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Client Sample ID: KU-TP-N-S
Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			320405	09/15/16 07:21	CAM	TAL BUF
Total/NA	Analysis	8082A		1	320546	09/15/16 19:46	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	320375	09/14/16 21:34	CMK	TAL BUF

Client Sample ID: KU-TP-N-S
Date Collected: 09/12/16 14:40
Date Received: 09/14/16 10:15

Lab Sample ID: 480-105899-6
Matrix: Solid
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			320370	09/14/16 21:00	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	320367	09/15/16 07:52	CDC	TAL BUF
Total/NA	Prep	3550C			320403	09/15/16 07:13	CAM	TAL BUF
Total/NA	Analysis	8270D		20	320667	09/16/16 17:30	LMW	TAL BUF
Total/NA	Prep	3550C			320399	09/15/16 06:36	CAM	TAL BUF
Total/NA	Analysis	8081B		20	321458	09/21/16 15:17	MAN	TAL BUF
Total/NA	Prep	3050B			320492	09/15/16 12:27	RMZ	TAL BUF
Total/NA	Analysis	6010C		1	320834	09/16/16 14:13	LMH	TAL BUF
Total/NA	Prep	7471B			320443	09/15/16 09:45	JRK	TAL BUF
Total/NA	Analysis	7471B		1	320691	09/16/16 08:13	JRK	TAL BUF
Total/NA	Prep	9012B			320508	09/15/16 12:00	JCL	TAL BUF
Total/NA	Analysis	9012B		1	320788	09/16/16 15:20	KRT	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

The following analytes are included in this report, but 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: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-105899-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-105899-1	KU-TP-C-S	Solid	09/12/16 08:45	09/14/16 10:15
480-105899-2	KU-TP-E-S	Solid	09/12/16 10:55	09/14/16 10:15
480-105899-3	KU-TP-G-S	Solid	09/12/16 09:25	09/14/16 10:15
480-105899-4	KU-TP-J-S	Solid	09/12/16 13:15	09/14/16 10:15
480-105899-5	KU-TP-L-S	Solid	09/12/16 13:55	09/14/16 10:15
480-105899-6	KU-TP-N-S	Solid	09/12/16 14:40	09/14/16 10:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Laura Best	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-86931-21226.1
Client Contact: Ms. Stephanie Reynolds-Smith	Phone: 585-413-5327	E-Mail: ryan.vandette@testamericainc.com		Page: Page 1 of 2
Company: Stantec Consulting Services Inc				Job #:
Address: 61 Commercial Street	Due Date Requested:			
City: Rochester	TAT Requested (days): 10-day			
State, Zip: NY, 14614				
Phone: 585-413-5272	PO #: Purchase Order not required			
Email: stephanie.reynoldssmith@stantec.com	WO #: 10137			
Project Name: Karges & Uhlen Phase II	Project #: 48014678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI W, K - EDT, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate
Other:

480-105899 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012B - Cyanide, Total	6010C, 7471B (8 RCRA metals)	8081B, 8082A, 8270D	8260C - (MOD) TCL list OLM04.2 (+CP-51)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
KU-TP-C-S	9/12/16	08:45	G	Solid			X	X	X	X	4	
KU-TP-E-S	9/12/16	10:55	G	Solid			X	X	X	X	4	
KU-TP-G-S	9/12/16	09:25	G	Solid			X	X	X	X	4	
KU-TP-J-S	9/12/16	13:15	G	Solid			X	X	X	X	4	
KU-TP-L-S	9/12/16	13:55	G	Solid			X	X	X	X	4	
KU-TP-N-S	9/12/16	14:40	G	Solid			X	X	X	X	4	
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Laura Best

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NYSDEC EQUIS EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Laura Best	9/13/16 16:45	Stantec	FEDEX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/14/16 1015	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 7.8 #1

Page 68 of 69

9/23/2016

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-105899-1
SDG Number:

Login Number: 105899
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	stantec
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-106793-1
Client Project/Site: Karges & Uhlen Phase II - Water

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, New York 14614

Attn: Ms. Stephanie Reynolds-Smith

Denise L Giglia

Authorized for release by:
10/7/2016 10:33:12 AM
Denise Giglia, Project Management Assistant II
denise.giglia@testamericainc.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
ryan.vandette@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-106793-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-106793-1

Comments
No additional comments.

Receipt
The samples were received on 9/30/2016 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-323355 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: KU-MW-9-W (480-106793-1) and TRIP BLANK (480-106793-2).

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

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-323449 and analytical batch 480-323650 recovered outside control limits for the following analyte: Benzaldehyde. This analyte has been identified as a poor performing analyte when analyzed using this method; therefore, re-analysis was not performed. These results have been reported and qualified.

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

GC Semi VOA
Method(s) 8081B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 480-323266 recovered outside control limits for the following analytes: Aldrin and alpha-Chlordane

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.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Client Sample ID: KU-MW-9-W — Lab Sample ID: 480-106793-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.22	J	1.0	0.19	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	7.1		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	85		1.0	0.46	ug/L	1		8260C	Total/NA
Benzaldehyde	0.29	J *	4.9	0.26	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.28	J	4.9	0.21	ug/L	1		8270D	Total/NA
alpha-BHC	0.0093	J B	0.050	0.0077	ug/L	1		8081B	Total/NA
delta-BHC	0.010	J	0.050	0.010	ug/L	1		8081B	Total/NA
Endrin aldehyde	0.044	J B	0.050	0.016	ug/L	1		8081B	Total/NA
Barium	0.049		0.0020	0.00070	mg/L	1		6010C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-106793-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: KU-MW-9-W
Date Collected: 09/29/16 10:15
Date Received: 09/30/16 09:45

Lab Sample ID: 480-106793-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/01/16 12:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/01/16 12:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/01/16 12:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/01/16 12:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/01/16 12:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/01/16 12:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/01/16 12:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/01/16 12:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/01/16 12:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/01/16 12:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/01/16 12:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/01/16 12:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/01/16 12:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/01/16 12:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/01/16 12:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/01/16 12:26	1
2-Hexanone	ND		5.0	1.2	ug/L			10/01/16 12:26	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/01/16 12:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/01/16 12:26	1
Acetone	ND		10	3.0	ug/L			10/01/16 12:26	1
Benzene	ND		1.0	0.41	ug/L			10/01/16 12:26	1
Bromoform	ND		1.0	0.26	ug/L			10/01/16 12:26	1
Bromomethane	ND		1.0	0.69	ug/L			10/01/16 12:26	1
Carbon disulfide	**0.22**	**J**	1.0	0.19	ug/L			10/01/16 12:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/01/16 12:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/01/16 12:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/01/16 12:26	1
Chloroethane	ND		1.0	0.32	ug/L			10/01/16 12:26	1
Chloroform	ND		1.0	0.34	ug/L			10/01/16 12:26	1
Chloromethane	ND		1.0	0.35	ug/L			10/01/16 12:26	1
cis-1,2-Dichloroethene	**7.1**		1.0	0.81	ug/L			10/01/16 12:26	1
Cyclohexane	ND		1.0	0.18	ug/L			10/01/16 12:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/01/16 12:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/01/16 12:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/01/16 12:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/01/16 12:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/01/16 12:26	1
Methyl acetate	ND		2.5	1.3	ug/L			10/01/16 12:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/01/16 12:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/01/16 12:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/01/16 12:26	1
m,p-Xylene	ND		2.0	0.66	ug/L			10/01/16 12:26	1
Naphthalene	ND		1.0	0.43	ug/L			10/01/16 12:26	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/01/16 12:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/01/16 12:26	1
o-Xylene	ND		1.0	0.76	ug/L			10/01/16 12:26	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/01/16 12:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/01/16 12:26	1
Toluene	ND		1.0	0.51	ug/L			10/01/16 12:26	1

Client Sample ID: KU-MW-9-W
Date Collected: 09/29/16 10:15
Date Received: 09/30/16 09:45

Lab Sample ID: 480-106793-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/01/16 12:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/01/16 12:26	1
Trichloroethene	**85**		1.0	0.46	ug/L			10/01/16 12:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/01/16 12:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/01/16 12:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/01/16 12:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/01/16 12:26	1
Styrene	ND		1.0	0.73	ug/L			10/01/16 12:26	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/01/16 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*		*10/01/16 12:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*10/01/16 12:26*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*10/01/16 12:26*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*10/01/16 12:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.9	0.64	ug/L		10/03/16 07:32	10/04/16 14:34	1
bis (2-chloroisopropyl) ether	ND		4.9	0.51	ug/L		10/03/16 07:32	10/04/16 14:34	1
2,4-Dinitrotoluene	ND		4.9	0.44	ug/L		10/03/16 07:32	10/04/16 14:34	1
2,6-Dinitrotoluene	ND		4.9	0.39	ug/L		10/03/16 07:32	10/04/16 14:34	1
2-Chloronaphthalene	ND		4.9	0.45	ug/L		10/03/16 07:32	10/04/16 14:34	1
2-Methylnaphthalene	ND		4.9	0.59	ug/L		10/03/16 07:32	10/04/16 14:34	1
2-Nitroaniline	ND		9.8	0.41	ug/L		10/03/16 07:32	10/04/16 14:34	1
3,3'-Dichlorobenzidine	ND		4.9	0.39	ug/L		10/03/16 07:32	10/04/16 14:34	1
3-Nitroaniline	ND		9.8	0.47	ug/L		10/03/16 07:32	10/04/16 14:34	1
4-Bromophenyl phenyl ether	ND		4.9	0.44	ug/L		10/03/16 07:32	10/04/16 14:34	1
4-Chloroaniline	ND		4.9	0.58	ug/L		10/03/16 07:32	10/04/16 14:34	1
4-Chlorophenyl phenyl ether	ND		4.9	0.34	ug/L		10/03/16 07:32	10/04/16 14:34	1
4-Nitroaniline	ND		9.8	0.24	ug/L		10/03/16 07:32	10/04/16 14:34	1
Acenaphthene	ND		4.9	0.40	ug/L		10/03/16 07:32	10/04/16 14:34	1
Acenaphthylene	ND		4.9	0.37	ug/L		10/03/16 07:32	10/04/16 14:34	1
Acetophenone	ND		4.9	0.53	ug/L		10/03/16 07:32	10/04/16 14:34	1
Anthracene	ND		4.9	0.27	ug/L		10/03/16 07:32	10/04/16 14:34	1
Atrazine	ND		4.9	0.45	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzaldehyde	**0.29**	**J ***	4.9	0.26	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzo[a]anthracene	ND		4.9	0.35	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzo[a]pyrene	ND		4.9	0.46	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzo[b]fluoranthene	ND		4.9	0.33	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzo[g,h,i]perylene	ND		4.9	0.34	ug/L		10/03/16 07:32	10/04/16 14:34	1
Benzo[k]fluoranthene	ND		4.9	0.71	ug/L		10/03/16 07:32	10/04/16 14:34	1
Bis(2-chloroethoxy)methane	ND		4.9	0.34	ug/L		10/03/16 07:32	10/04/16 14:34	1
Bis(2-chloroethyl)ether	ND		4.9	0.39	ug/L		10/03/16 07:32	10/04/16 14:34	1
Bis(2-ethylhexyl) phthalate	ND		4.9	2.1	ug/L		10/03/16 07:32	10/04/16 14:34	1
Butyl benzyl phthalate	ND		4.9	0.98	ug/L		10/03/16 07:32	10/04/16 14:34	1
Caprolactam	ND		4.9	2.1	ug/L		10/03/16 07:32	10/04/16 14:34	1
Carbazole	ND		4.9	0.29	ug/L		10/03/16 07:32	10/04/16 14:34	1
Chrysene	ND		4.9	0.32	ug/L		10/03/16 07:32	10/04/16 14:34	1
Dibenz(a,h)anthracene	ND		4.9	0.41	ug/L		10/03/16 07:32	10/04/16 14:34	1

Client Sample ID: KU-MW-9-W
Date Collected: 09/29/16 10:15
Date Received: 09/30/16 09:45

Lab Sample ID: 480-106793-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		9.8	0.50	ug/L		10/03/16 07:32	10/04/16 14:34	1
Diethyl phthalate	**0.28**	**J**	4.9	0.21	ug/L		10/03/16 07:32	10/04/16 14:34	1
Dimethyl phthalate	ND		4.9	0.35	ug/L		10/03/16 07:32	10/04/16 14:34	1
Di-n-butyl phthalate	ND		4.9	0.30	ug/L		10/03/16 07:32	10/04/16 14:34	1
Di-n-octyl phthalate	ND		4.9	0.46	ug/L		10/03/16 07:32	10/04/16 14:34	1
Fluoranthene	ND		4.9	0.39	ug/L		10/03/16 07:32	10/04/16 14:34	1
Fluorene	ND		4.9	0.35	ug/L		10/03/16 07:32	10/04/16 14:34	1
Hexachlorobenzene	ND		4.9	0.50	ug/L		10/03/16 07:32	10/04/16 14:34	1
Hexachlorobutadiene	ND		4.9	0.66	ug/L		10/03/16 07:32	10/04/16 14:34	1
Hexachlorocyclopentadiene	ND		4.9	0.58	ug/L		10/03/16 07:32	10/04/16 14:34	1
Hexachloroethane	ND		4.9	0.58	ug/L		10/03/16 07:32	10/04/16 14:34	1
Indeno[1,2,3-cd]pyrene	ND		4.9	0.46	ug/L		10/03/16 07:32	10/04/16 14:34	1
Isophorone	ND		4.9	0.42	ug/L		10/03/16 07:32	10/04/16 14:34	1
Naphthalene	ND		4.9	0.74	ug/L		10/03/16 07:32	10/04/16 14:34	1
Nitrobenzene	ND		4.9	0.28	ug/L		10/03/16 07:32	10/04/16 14:34	1
N-Nitrosodi-n-propylamine	ND		4.9	0.53	ug/L		10/03/16 07:32	10/04/16 14:34	1
N-Nitrosodiphenylamine	ND		4.9	0.50	ug/L		10/03/16 07:32	10/04/16 14:34	1
Phenanthrene	ND		4.9	0.43	ug/L		10/03/16 07:32	10/04/16 14:34	1
Pyrene	ND		4.9	0.33	ug/L		10/03/16 07:32	10/04/16 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*	*10/03/16 07:32*	*10/04/16 14:34*	*1*
p-Terphenyl-d14 (Surr)	*98*		*67 - 150*	*10/03/16 07:32*	*10/04/16 14:34*	*1*
Phenol-d5 (Surr)	*60*		*16 - 120*	*10/03/16 07:32*	*10/04/16 14:34*	*1*
2-Fluorophenol (Surr)	*80*		*20 - 120*	*10/03/16 07:32*	*10/04/16 14:34*	*1*
2,4,6-Tribromophenol (Surr)	*113*		*52 - 132*	*10/03/16 07:32*	*10/04/16 14:34*	*1*
2-Fluorobiphenyl	*99*		*48 - 120*	*10/03/16 07:32*	*10/04/16 14:34*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		09/30/16 16:30	10/04/16 11:22	1
4,4'-DDE	ND		0.050	0.012	ug/L		09/30/16 16:30	10/04/16 11:22	1
4,4'-DDT	ND		0.050	0.011	ug/L		09/30/16 16:30	10/04/16 11:22	1
Aldrin	ND	*	0.050	0.0081	ug/L		09/30/16 16:30	10/04/16 11:22	1
alpha-BHC	**0.0093**	**J B**	0.050	0.0077	ug/L		09/30/16 16:30	10/04/16 11:22	1
alpha-Chlordane	ND	*	0.050	0.015	ug/L		09/30/16 16:30	10/04/16 11:22	1
beta-BHC	ND		0.050	0.025	ug/L		09/30/16 16:30	10/04/16 11:22	1
delta-BHC	**0.010**	**J**	0.050	0.010	ug/L		09/30/16 16:30	10/04/16 11:22	1
Dieldrin	ND		0.050	0.0098	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endosulfan I	ND		0.050	0.011	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endosulfan II	ND		0.050	0.012	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endrin	ND		0.050	0.014	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endrin aldehyde	**0.044**	**J B**	0.050	0.016	ug/L		09/30/16 16:30	10/04/16 11:22	1
Endrin ketone	ND		0.050	0.012	ug/L		09/30/16 16:30	10/04/16 11:22	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		09/30/16 16:30	10/04/16 11:22	1
gamma-Chlordane	ND		0.050	0.011	ug/L		09/30/16 16:30	10/04/16 11:22	1
Heptachlor	ND		0.050	0.0085	ug/L		09/30/16 16:30	10/04/16 11:22	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		09/30/16 16:30	10/04/16 11:22	1
Methoxychlor	ND		0.050	0.014	ug/L		09/30/16 16:30	10/04/16 11:22	1

Client Sample ID: KU-MW-9-W

Lab Sample ID: 480-106793-1
Matrix: Water
Date Collected: 09/29/16 10:15
Date Received: 09/30/16 09:45

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.50	0.12	ug/L		09/30/16 16:30	10/04/16 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*20 - 120*	*09/30/16 16:30*	*10/04/16 11:22*	*1*
Tetrachloro-m-xylene	*91*		*44 - 120*	*09/30/16 16:30*	*10/04/16 11:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48	0.17	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1221	ND		0.48	0.17	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1232	ND		0.48	0.17	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1242	ND		0.48	0.17	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1248	ND		0.48	0.17	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1254	ND		0.48	0.24	ug/L		10/04/16 13:00	10/04/16 22:19	1
PCB-1260	ND		0.48	0.24	ug/L		10/04/16 13:00	10/04/16 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*19 - 120*	*10/04/16 13:00*	*10/04/16 22:19*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*10/04/16 13:00*	*10/04/16 22:19*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		10/01/16 13:45	10/03/16 23:19	1
Arsenic	ND		0.015	0.0056	mg/L		10/01/16 13:45	10/03/16 23:19	1
Barium	**0.049**		0.0020	0.00070	mg/L		10/01/16 13:45	10/03/16 23:19	1
Cadmium	ND		0.0020	0.00050	mg/L		10/01/16 13:45	10/03/16 23:19	1
Chromium	ND		0.0040	0.0010	mg/L		10/01/16 13:45	10/03/16 23:19	1
Lead	ND		0.010	0.0030	mg/L		10/01/16 13:45	10/03/16 23:19	1
Selenium	ND		0.025	0.0087	mg/L		10/01/16 13:45	10/03/16 23:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/03/16 08:20	10/03/16 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/03/16 09:20	10/03/16 12:25	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-106793-2
Matrix: Water
Date Collected: 09/29/16 09:00
Date Received: 09/30/16 09:45

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/01/16 12:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/01/16 12:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/01/16 12:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/01/16 12:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/01/16 12:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/01/16 12:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/01/16 12:50	1

Client Sample ID: TRIP BLANK
Date Collected: 09/29/16 09:00
Date Received: 09/30/16 09:45

Lab Sample ID: 480-106793-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/01/16 12:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/01/16 12:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/01/16 12:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/01/16 12:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/01/16 12:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/01/16 12:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/01/16 12:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/01/16 12:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/01/16 12:50	1
2-Hexanone	ND		5.0	1.2	ug/L			10/01/16 12:50	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/01/16 12:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/01/16 12:50	1
Acetone	ND		10	3.0	ug/L			10/01/16 12:50	1
Benzene	ND		1.0	0.41	ug/L			10/01/16 12:50	1
Bromoform	ND		1.0	0.26	ug/L			10/01/16 12:50	1
Bromomethane	ND		1.0	0.69	ug/L			10/01/16 12:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/01/16 12:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/01/16 12:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/01/16 12:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/01/16 12:50	1
Chloroethane	ND		1.0	0.32	ug/L			10/01/16 12:50	1
Chloroform	ND		1.0	0.34	ug/L			10/01/16 12:50	1
Chloromethane	ND		1.0	0.35	ug/L			10/01/16 12:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/01/16 12:50	1
Cyclohexane	ND		1.0	0.18	ug/L			10/01/16 12:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/01/16 12:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/01/16 12:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/01/16 12:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/01/16 12:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/01/16 12:50	1
Methyl acetate	ND		2.5	1.3	ug/L			10/01/16 12:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/01/16 12:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/01/16 12:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/01/16 12:50	1
m,p-Xylene	ND		2.0	0.66	ug/L			10/01/16 12:50	1
Naphthalene	ND		1.0	0.43	ug/L			10/01/16 12:50	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/01/16 12:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/01/16 12:50	1
o-Xylene	ND		1.0	0.76	ug/L			10/01/16 12:50	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/01/16 12:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/01/16 12:50	1
Toluene	ND		1.0	0.51	ug/L			10/01/16 12:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/01/16 12:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/01/16 12:50	1
Trichloroethene	ND		1.0	0.46	ug/L			10/01/16 12:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/01/16 12:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/01/16 12:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/01/16 12:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/01/16 12:50	1

Client Sample ID: TRIP BLANK
Date Collected: 09/29/16 09:00
Date Received: 09/30/16 09:45

Lab Sample ID: 480-106793-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.73	ug/L			10/01/16 12:50	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/01/16 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*		*10/01/16 12:50*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*10/01/16 12:50*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*10/01/16 12:50*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*10/01/16 12:50*	*1*

Surrogate Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-106793-1	KU-MW-9-W	90	101	90	99
480-106793-2	TRIP BLANK	90	100	89	102
LCS 480-323355/5	Lab Control Sample	91	103	91	100
MB 480-323355/7	Method Blank	87	99	90	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	TPH	PHL	2FP	TBP	FBP
Lab Sample ID	Client Sample ID	(46-120)	(67-150)	(16-120)	(20-120)	(52-132)	(48-120)
480-106793-1	KU-MW-9-W	88	98	60	80	113	99
LCS 480-323449/2-A	Lab Control Sample	69	83	52	64	82	71
MB 480-323449/1-A	Method Blank	82	101	54	71	96	91

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
TPH = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB2	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(44-120)
480-106793-1	KU-MW-9-W	69	91
LCS 480-323266/2-A	Lab Control Sample	56	90
LCSD 480-323266/3-A	Lab Control Sample Dup	44	73
MB 480-323266/1-A	Method Blank	87	107

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		DCB1	TCX1								
Lab Sample ID	Client Sample ID	(19-120)	(39-121)								
480-106793-1	KU-MW-9-W	60	71								
LCS 480-323746/2-A	Lab Control Sample	35	81								
MB 480-323746/1-A	Method Blank	40	84								

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-323355/7
Matrix: Water
Analysis Batch: 323355

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/01/16 11:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/01/16 11:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/01/16 11:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/01/16 11:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/01/16 11:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/01/16 11:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/01/16 11:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/01/16 11:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/01/16 11:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/01/16 11:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/01/16 11:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/01/16 11:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/01/16 11:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/01/16 11:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/01/16 11:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/01/16 11:25	1
2-Hexanone	ND		5.0	1.2	ug/L			10/01/16 11:25	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/01/16 11:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/01/16 11:25	1
Acetone	ND		10	3.0	ug/L			10/01/16 11:25	1
Benzene	ND		1.0	0.41	ug/L			10/01/16 11:25	1
Bromoform	ND		1.0	0.26	ug/L			10/01/16 11:25	1
Bromomethane	ND		1.0	0.69	ug/L			10/01/16 11:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/01/16 11:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/01/16 11:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/01/16 11:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/01/16 11:25	1
Chloroethane	ND		1.0	0.32	ug/L			10/01/16 11:25	1
Chloroform	ND		1.0	0.34	ug/L			10/01/16 11:25	1
Chloromethane	ND		1.0	0.35	ug/L			10/01/16 11:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/01/16 11:25	1
Cyclohexane	ND		1.0	0.18	ug/L			10/01/16 11:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/01/16 11:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/01/16 11:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/01/16 11:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/01/16 11:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/01/16 11:25	1
Methyl acetate	ND		2.5	1.3	ug/L			10/01/16 11:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/01/16 11:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/01/16 11:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/01/16 11:25	1
m,p-Xylene	ND		2.0	0.66	ug/L			10/01/16 11:25	1
Naphthalene	ND		1.0	0.43	ug/L			10/01/16 11:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/01/16 11:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/01/16 11:25	1
o-Xylene	ND		1.0	0.76	ug/L			10/01/16 11:25	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/01/16 11:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/01/16 11:25	1

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

Lab Sample ID: MB 480-323355/7
Matrix: Water
Analysis Batch: 323355

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			10/01/16 11:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/01/16 11:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/01/16 11:25	1
Trichloroethene	ND		1.0	0.46	ug/L			10/01/16 11:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/01/16 11:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/01/16 11:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/01/16 11:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/01/16 11:25	1
Styrene	ND		1.0	0.73	ug/L			10/01/16 11:25	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/01/16 11:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*		*10/01/16 11:25*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/01/16 11:25*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*10/01/16 11:25*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*10/01/16 11:25*	*1*

Lab Sample ID: LCS 480-323355/5
Matrix: Water
Analysis Batch: 323355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.8		ug/L		103	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.7		ug/L		91	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.7		ug/L		95	61 - 148
1,1,2-Trichloroethane	25.0	23.2		ug/L		93	76 - 122
1,1-Dichloroethane	25.0	25.5		ug/L		102	77 - 120
1,1-Dichloroethene	25.0	22.9		ug/L		92	66 - 127
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		90	79 - 122
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		98	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	21.0		ug/L		84	56 - 134
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	24.0		ug/L		96	75 - 120
1,2-Dichloropropane	25.0	24.7		ug/L		99	76 - 120
1,3,5-Trimethylbenzene	25.0	24.3		ug/L		97	77 - 121
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	24.1		ug/L		97	80 - 120
2-Butanone (MEK)	125	127		ug/L		102	57 - 140
2-Hexanone	125	114		ug/L		91	65 - 127
4-Isopropyltoluene	25.0	24.3		ug/L		97	73 - 120
4-Methyl-2-pentanone (MIBK)	125	106		ug/L		85	71 - 125
Acetone	125	148		ug/L		118	56 - 142
Benzene	25.0	24.8		ug/L		99	71 - 124
Bromoform	25.0	24.4		ug/L		98	61 - 132
Bromomethane	25.0	27.2		ug/L		109	55 - 144
Carbon disulfide	25.0	22.7		ug/L		91	59 - 134
Carbon tetrachloride	25.0	25.1		ug/L		101	72 - 134

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

Lab Sample ID: LCS 480-323355/5
Matrix: Water
Analysis Batch: 323355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	25.0	23.3		ug/L		93	80 - 120
Dibromochloromethane	25.0	24.0		ug/L		96	75 - 125
Chloroethane	25.0	28.4		ug/L		114	69 - 136
Chloroform	25.0	25.2		ug/L		101	73 - 127
Chloromethane	25.0	28.6		ug/L		114	68 - 124
cis-1,2-Dichloroethene	25.0	26.0		ug/L		104	74 - 124
Cyclohexane	25.0	23.0		ug/L		92	59 - 135
Bromodichloromethane	25.0	25.7		ug/L		103	80 - 122
Dichlorodifluoromethane	25.0	29.8		ug/L		119	59 - 135
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
1,2-Dibromoethane	25.0	22.2		ug/L		89	77 - 120
Isopropylbenzene	25.0	23.5		ug/L		94	77 - 122
Methyl acetate	125	110		ug/L		88	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120
Methylcyclohexane	25.0	24.1		ug/L		96	68 - 134
Methylene Chloride	25.0	27.4		ug/L		109	75 - 124
m,p-Xylene	25.0	23.4		ug/L		94	76 - 122
Naphthalene	25.0	20.8		ug/L		83	66 - 125
n-Butylbenzene	25.0	23.1		ug/L		93	71 - 128
N-Propylbenzene	25.0	23.5		ug/L		94	75 - 127
o-Xylene	25.0	24.0		ug/L		96	76 - 122
sec-Butylbenzene	25.0	23.6		ug/L		94	74 - 127
Tetrachloroethene	25.0	23.7		ug/L		95	74 - 122
Toluene	25.0	22.9		ug/L		92	80 - 122
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	22.8		ug/L		91	80 - 120
Trichloroethene	25.0	25.1		ug/L		100	74 - 123
Trichlorofluoromethane	25.0	29.9		ug/L		120	62 - 150
Vinyl chloride	25.0	27.7		ug/L		111	65 - 133
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	74 - 124
Styrene	25.0	24.5		ug/L		98	80 - 120
tert-Butylbenzene	25.0	24.1		ug/L		96	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

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

Lab Sample ID: MB 480-323449/1-A
Matrix: Water
Analysis Batch: 323650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		10/03/16 07:32	10/04/16 09:32	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		10/03/16 07:32	10/04/16 09:32	1

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

Lab Sample ID: MB 480-323449/1-A
Matrix: Water
Analysis Batch: 323650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		10/03/16 07:32	10/04/16 09:32	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		10/03/16 07:32	10/04/16 09:32	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		10/03/16 07:32	10/04/16 09:32	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		10/03/16 07:32	10/04/16 09:32	1
2-Nitroaniline	ND		10	0.42	ug/L		10/03/16 07:32	10/04/16 09:32	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		10/03/16 07:32	10/04/16 09:32	1
3-Nitroaniline	ND		10	0.48	ug/L		10/03/16 07:32	10/04/16 09:32	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		10/03/16 07:32	10/04/16 09:32	1
4-Chloroaniline	ND		5.0	0.59	ug/L		10/03/16 07:32	10/04/16 09:32	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		10/03/16 07:32	10/04/16 09:32	1
4-Nitroaniline	ND		10	0.25	ug/L		10/03/16 07:32	10/04/16 09:32	1
Acenaphthene	ND		5.0	0.41	ug/L		10/03/16 07:32	10/04/16 09:32	1
Acenaphthylene	ND		5.0	0.38	ug/L		10/03/16 07:32	10/04/16 09:32	1
Acetophenone	ND		5.0	0.54	ug/L		10/03/16 07:32	10/04/16 09:32	1
Anthracene	ND		5.0	0.28	ug/L		10/03/16 07:32	10/04/16 09:32	1
Atrazine	ND		5.0	0.46	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzaldehyde	ND		5.0	0.27	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		10/03/16 07:32	10/04/16 09:32	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		10/03/16 07:32	10/04/16 09:32	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		10/03/16 07:32	10/04/16 09:32	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		10/03/16 07:32	10/04/16 09:32	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		10/03/16 07:32	10/04/16 09:32	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		10/03/16 07:32	10/04/16 09:32	1
Caprolactam	ND		5.0	2.2	ug/L		10/03/16 07:32	10/04/16 09:32	1
Carbazole	ND		5.0	0.30	ug/L		10/03/16 07:32	10/04/16 09:32	1
Chrysene	ND		5.0	0.33	ug/L		10/03/16 07:32	10/04/16 09:32	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		10/03/16 07:32	10/04/16 09:32	1
Dibenzofuran	ND		10	0.51	ug/L		10/03/16 07:32	10/04/16 09:32	1
Diethyl phthalate	ND		5.0	0.22	ug/L		10/03/16 07:32	10/04/16 09:32	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		10/03/16 07:32	10/04/16 09:32	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		10/03/16 07:32	10/04/16 09:32	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		10/03/16 07:32	10/04/16 09:32	1
Fluoranthene	ND		5.0	0.40	ug/L		10/03/16 07:32	10/04/16 09:32	1
Fluorene	ND		5.0	0.36	ug/L		10/03/16 07:32	10/04/16 09:32	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		10/03/16 07:32	10/04/16 09:32	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		10/03/16 07:32	10/04/16 09:32	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		10/03/16 07:32	10/04/16 09:32	1
Hexachloroethane	ND		5.0	0.59	ug/L		10/03/16 07:32	10/04/16 09:32	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		10/03/16 07:32	10/04/16 09:32	1
Isophorone	ND		5.0	0.43	ug/L		10/03/16 07:32	10/04/16 09:32	1
Naphthalene	ND		5.0	0.76	ug/L		10/03/16 07:32	10/04/16 09:32	1
Nitrobenzene	ND		5.0	0.29	ug/L		10/03/16 07:32	10/04/16 09:32	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		10/03/16 07:32	10/04/16 09:32	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		10/03/16 07:32	10/04/16 09:32	1
Phenanthrene	ND		5.0	0.44	ug/L		10/03/16 07:32	10/04/16 09:32	1

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

Lab Sample ID: MB 480-323449/1-A
Matrix: Water
Analysis Batch: 323650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		5.0	0.34	ug/L		10/03/16 07:32	10/04/16 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*10/03/16 07:32*	*10/04/16 09:32*	*1*
p-Terphenyl-d14 (Surr)	*101*		*67 - 150*	*10/03/16 07:32*	*10/04/16 09:32*	*1*
Phenol-d5 (Surr)	*54*		*16 - 120*	*10/03/16 07:32*	*10/04/16 09:32*	*1*
2-Fluorophenol (Surr)	*71*		*20 - 120*	*10/03/16 07:32*	*10/04/16 09:32*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*52 - 132*	*10/03/16 07:32*	*10/04/16 09:32*	*1*
2-Fluorobiphenyl	*91*		*48 - 120*	*10/03/16 07:32*	*10/04/16 09:32*	*1*

Lab Sample ID: LCS 480-323449/2-A
Matrix: Water
Analysis Batch: 323650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	16.0	11.4		ug/L		71	30 - 140
bis (2-chloroisopropyl) ether	16.0	10.6		ug/L		66	28 - 136
2,4-Dinitrotoluene	16.0	12.8		ug/L		80	65 - 154
2,6-Dinitrotoluene	16.0	12.3		ug/L		77	74 - 134
2-Chloronaphthalene	16.0	11.3		ug/L		70	41 - 124
2-Methylnaphthalene	16.0	11.7		ug/L		73	34 - 122
2-Nitroaniline	16.0	12.1		ug/L		76	67 - 136
3,3'-Dichlorobenzidine	32.0	29.4		ug/L		92	33 - 140
3-Nitroaniline	16.0	12.5		ug/L		78	28 - 130
4-Bromophenyl phenyl ether	16.0	12.5		ug/L		78	71 - 126
4-Chloroaniline	16.0	11.4		ug/L		72	10 - 130
4-Chlorophenyl phenyl ether	16.0	12.0		ug/L		75	71 - 122
4-Nitroaniline	16.0	13.3		ug/L		83	47 - 130
Acenaphthene	16.0	11.8		ug/L		73	60 - 120
Acenaphthylene	16.0	12.0		ug/L		75	63 - 120
Acetophenone	16.0	12.3		ug/L		77	45 - 120
Anthracene	16.0	12.6		ug/L		79	58 - 148
Atrazine	32.0	28.1		ug/L		88	56 - 179
Benzaldehyde	32.0	6.66	*	ug/L		21	30 - 140
Benzo[a]anthracene	16.0	12.9		ug/L		81	55 - 151
Benzo[a]pyrene	16.0	12.7		ug/L		80	60 - 145
Benzo[b]fluoranthene	16.0	13.2		ug/L		82	54 - 140
Benzo[g,h,i]perylene	16.0	12.8		ug/L		80	66 - 152
Benzo[k]fluoranthene	16.0	12.5		ug/L		78	51 - 153
Bis(2-chloroethoxy)methane	16.0	12.1		ug/L		76	50 - 128
Bis(2-chloroethyl)ether	16.0	11.8		ug/L		74	51 - 120
Bis(2-ethylhexyl) phthalate	16.0	13.3		ug/L		83	53 - 158
Butyl benzyl phthalate	16.0	12.6		ug/L		79	58 - 163
Caprolactam	32.0	11.7		ug/L		36	14 - 130
Carbazole	16.0	13.3		ug/L		83	59 - 148
Chrysene	16.0	13.2		ug/L		83	69 - 140
Dibenz(a,h)anthracene	16.0	12.7		ug/L		79	57 - 148
Dibenzofuran	16.0	12.1		ug/L		76	49 - 137

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

Lab Sample ID: LCS 480-323449/2-A
Matrix: Water
Analysis Batch: 323650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	16.0	12.9		ug/L		81	59 - 146
Dimethyl phthalate	16.0	12.8		ug/L		80	59 - 141
Di-n-butyl phthalate	16.0	13.1		ug/L		82	58 - 149
Di-n-octyl phthalate	16.0	13.1		ug/L		82	55 - 167
Fluoranthene	16.0	13.1		ug/L		82	55 - 147
Fluorene	16.0	12.3		ug/L		77	55 - 143
Hexachlorobenzene	16.0	12.7		ug/L		79	14 - 130
Hexachlorobutadiene	16.0	11.0		ug/L		69	14 - 130
Hexachlorocyclopentadiene	16.0	9.02		ug/L		56	13 - 130
Hexachloroethane	16.0	10.4		ug/L		65	14 - 130
Indeno[1,2,3-cd]pyrene	16.0	12.6		ug/L		79	69 - 146
Isophorone	16.0	12.4		ug/L		77	48 - 133
Naphthalene	16.0	11.7		ug/L		73	35 - 130
Nitrobenzene	16.0	11.9		ug/L		74	45 - 123
N-Nitrosodi-n-propylamine	16.0	12.3		ug/L		77	56 - 120
N-Nitrosodiphenylamine	16.0	12.4		ug/L		77	25 - 125
Phenanthrene	16.0	12.6		ug/L		79	57 - 147
Pyrene	16.0	12.4		ug/L		78	58 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*69*		*46 - 120*
p-Terphenyl-d14 (Surr)	*83*		*67 - 150*
Phenol-d5 (Surr)	*52*		*16 - 120*
2-Fluorophenol (Surr)	*64*		*20 - 120*
2,4,6-Tribromophenol (Surr)	*82*		*52 - 132*
2-Fluorobiphenyl	*71*		*48 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-323266/1-A
Matrix: Water
Analysis Batch: 323633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		09/30/16 14:02	10/04/16 10:03	1
4,4'-DDE	ND		0.050	0.012	ug/L		09/30/16 14:02	10/04/16 10:03	1
4,4'-DDT	ND		0.050	0.011	ug/L		09/30/16 14:02	10/04/16 10:03	1
Aldrin	ND		0.050	0.0081	ug/L		09/30/16 14:02	10/04/16 10:03	1
alpha-BHC	0.00931	J	0.050	0.0077	ug/L		09/30/16 14:02	10/04/16 10:03	1
alpha-Chlordane	ND		0.050	0.015	ug/L		09/30/16 14:02	10/04/16 10:03	1
beta-BHC	ND		0.050	0.025	ug/L		09/30/16 14:02	10/04/16 10:03	1
delta-BHC	ND		0.050	0.010	ug/L		09/30/16 14:02	10/04/16 10:03	1
Dieldrin	ND		0.050	0.0098	ug/L		09/30/16 14:02	10/04/16 10:03	1
Endosulfan I	ND		0.050	0.011	ug/L		09/30/16 14:02	10/04/16 10:03	1
Endosulfan II	ND		0.050	0.012	ug/L		09/30/16 14:02	10/04/16 10:03	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		09/30/16 14:02	10/04/16 10:03	1
Endrin	ND		0.050	0.014	ug/L		09/30/16 14:02	10/04/16 10:03	1
Endrin aldehyde	0.0280	J	0.050	0.016	ug/L		09/30/16 14:02	10/04/16 10:03	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-323266/1-A
Matrix: Water
Analysis Batch: 323633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	ND		0.050	0.012	ug/L		09/30/16 14:02	10/04/16 10:03	1
gamma-BHC (Lindane)	0.0118	J	0.050	0.0080	ug/L		09/30/16 14:02	10/04/16 10:03	1
gamma-Chlordane	ND		0.050	0.011	ug/L		09/30/16 14:02	10/04/16 10:03	1
Heptachlor	ND		0.050	0.0085	ug/L		09/30/16 14:02	10/04/16 10:03	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		09/30/16 14:02	10/04/16 10:03	1
Methoxychlor	ND		0.050	0.014	ug/L		09/30/16 14:02	10/04/16 10:03	1
Toxaphene	ND		0.50	0.12	ug/L		09/30/16 14:02	10/04/16 10:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*20 - 120*	*09/30/16 14:02*	*10/04/16 10:03*	*1*
Tetrachloro-m-xylene	*107*		*44 - 120*	*09/30/16 14:02*	*10/04/16 10:03*	*1*

Lab Sample ID: LCS 480-323266/2-A
Matrix: Water
Analysis Batch: 323633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323266

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.400	0.474		ug/L		119	64 - 129
4,4'-DDE	0.400	0.419		ug/L		105	50 - 120
4,4'-DDT	0.400	0.478		ug/L		120	59 - 120
Aldrin	0.400	0.267		ug/L		67	40 - 125
alpha-BHC	0.400	0.373		ug/L		93	52 - 125
alpha-Chlordane	0.400	0.370		ug/L		92	52 - 120
beta-BHC	0.400	0.382		ug/L		96	51 - 120
delta-BHC	0.400	0.388		ug/L		97	51 - 120
Dieldrin	0.400	0.473		ug/L		118	66 - 128
Endosulfan I	0.400	0.419		ug/L		105	57 - 120
Endosulfan II	0.400	0.459		ug/L		115	66 - 131
Endosulfan sulfate	0.400	0.457		ug/L		114	66 - 136
Endrin	0.400	0.482		ug/L		120	65 - 135
Endrin aldehyde	0.400	0.384		ug/L		96	61 - 134
Endrin ketone	0.400	0.501		ug/L		125	71 - 133
gamma-BHC (Lindane)	0.400	0.408		ug/L		102	56 - 120
gamma-Chlordane	0.400	0.393		ug/L		98	54 - 120
Heptachlor	0.400	0.448		ug/L		112	58 - 120
Heptachlor epoxide	0.400	0.388		ug/L		97	65 - 125
Methoxychlor	0.400	0.592		ug/L		148	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*56*		*20 - 120*
Tetrachloro-m-xylene	*90*		*44 - 120*

Lab Sample ID: LCSD 480-323266/3-A
Matrix: Water
Analysis Batch: 323633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 323266

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.400	0.432		ug/L		108	64 - 129	9	23

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 480-323266/3-A
Matrix: Water
Analysis Batch: 323633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 323266

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDE			0.400	0.347		ug/L		87	50 - 120	19	22
4,4'-DDT			0.400	0.427		ug/L		107	59 - 120	11	24
Aldrin			0.400	0.204	*	ug/L		51	40 - 125	27	25
alpha-BHC			0.400	0.302		ug/L		75	52 - 125	21	24
alpha-Chlordane			0.400	0.292	*	ug/L		73	52 - 120	24	23
beta-BHC			0.400	0.316		ug/L		79	51 - 120	19	24
delta-BHC			0.400	0.328		ug/L		82	51 - 120	17	24
Dieldrin			0.400	0.385		ug/L		96	66 - 128	20	24
Endosulfan I			0.400	0.337		ug/L		84	57 - 120	22	30
Endosulfan II			0.400	0.402		ug/L		101	66 - 131	13	40
Endosulfan sulfate			0.400	0.413		ug/L		103	66 - 136	10	24
Endrin			0.400	0.392		ug/L		98	65 - 135	21	24
Endrin aldehyde			0.400	0.389		ug/L		97	61 - 134	1	28
Endrin ketone			0.400	0.454		ug/L		113	71 - 133	10	26
gamma-BHC (Lindane)			0.400	0.331		ug/L		83	56 - 120	21	24
gamma-Chlordane			0.400	0.321		ug/L		80	54 - 120	20	24
Heptachlor			0.400	0.364		ug/L		91	58 - 120	21	25
Heptachlor epoxide			0.400	0.310		ug/L		77	65 - 125	22	23
Methoxychlor			0.400	0.552		ug/L		138	50 - 150	7	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*44*		*20 - 120*
Tetrachloro-m-xylene	*73*		*44 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-323746/1-A
Matrix: Water
Analysis Batch: 323769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1221	ND		0.50	0.18	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1232	ND		0.50	0.18	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1242	ND		0.50	0.18	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1248	ND		0.50	0.18	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1254	ND		0.50	0.25	ug/L		10/04/16 13:00	10/04/16 20:43	1
PCB-1260	ND		0.50	0.25	ug/L		10/04/16 13:00	10/04/16 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*10/04/16 13:00*	*10/04/16 20:43*	*1*
Tetrachloro-m-xylene	*84*		*39 - 121*	*10/04/16 13:00*	*10/04/16 20:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-323746/2-A
Matrix: Water
Analysis Batch: 323769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	3.56		ug/L		89	62 - 130
PCB-1260	4.00	2.89		ug/L		72	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*35*		*19 - 120*
Tetrachloro-m-xylene	*81*		*39 - 121*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-323369/1-A
Matrix: Water
Analysis Batch: 323670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323369

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		10/01/16 13:45	10/03/16 22:11	1
Arsenic	ND		0.015	0.0056	mg/L		10/01/16 13:45	10/03/16 22:11	1
Barium	ND		0.0020	0.00070	mg/L		10/01/16 13:45	10/03/16 22:11	1
Cadmium	ND		0.0020	0.00050	mg/L		10/01/16 13:45	10/03/16 22:11	1
Chromium	ND		0.0040	0.0010	mg/L		10/01/16 13:45	10/03/16 22:11	1
Lead	ND		0.010	0.0030	mg/L		10/01/16 13:45	10/03/16 22:11	1
Selenium	ND		0.025	0.0087	mg/L		10/01/16 13:45	10/03/16 22:11	1

Lab Sample ID: LCS 480-323369/2-A
Matrix: Water
Analysis Batch: 323670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323369

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0509		mg/L		102	80 - 120
Arsenic	0.200	0.204		mg/L		102	80 - 120
Barium	0.200	0.208		mg/L		104	80 - 120
Cadmium	0.200	0.201		mg/L		100	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Lead	0.200	0.205		mg/L		102	80 - 120
Selenium	0.200	0.202		mg/L		101	80 - 120

Lab Sample ID: LCSD 480-323369/19-A
Matrix: Water
Analysis Batch: 323670

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 323369

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.0500	0.0507		mg/L		101	80 - 120	0	20
Arsenic	0.200	0.203		mg/L		102	80 - 120	0	20
Barium	0.200	0.206		mg/L		103	80 - 120	1	20
Cadmium	0.200	0.199		mg/L		99	80 - 120	1	20
Chromium	0.200	0.203		mg/L		101	80 - 120	1	20
Lead	0.200	0.203		mg/L		101	80 - 120	1	20
Selenium	0.200	0.194		mg/L		97	80 - 120	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-323448/1-A
Matrix: Water
Analysis Batch: 323553

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/03/16 08:20	10/03/16 13:14	1

Lab Sample ID: LCS 480-323448/2-A
Matrix: Water
Analysis Batch: 323553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00692		mg/L		104	80 - 120

Lab Sample ID: LCSD 480-323448/17-A
Matrix: Water
Analysis Batch: 323553

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 323448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00682		mg/L		102	80 - 120	1	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-323458/1-A
Matrix: Water
Analysis Batch: 323534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/03/16 09:20	10/03/16 11:56	1

Lab Sample ID: LCS 480-323458/2-A
Matrix: Water
Analysis Batch: 323534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.239		mg/L		96	90 - 110

Lab Sample ID: 480-106793-1 MS
Matrix: Water
Analysis Batch: 323534

Client Sample ID: KU-MW-9-W
Prep Type: Total/NA
Prep Batch: 323458

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.103		mg/L		103	90 - 110

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

GC/MS VOA

Analysis Batch: 323355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	8260C	
480-106793-2	TRIP BLANK	Total/NA	Water	8260C	
MB 480-323355/7	Method Blank	Total/NA	Water	8260C	
LCS 480-323355/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 323449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	3510C	
MB 480-323449/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-323449/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 323650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	8270D	323449
MB 480-323449/1-A	Method Blank	Total/NA	Water	8270D	323449
LCS 480-323449/2-A	Lab Control Sample	Total/NA	Water	8270D	323449

GC Semi VOA

Prep Batch: 323266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	3510C	
MB 480-323266/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-323266/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-323266/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 323633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	8081B	323266
MB 480-323266/1-A	Method Blank	Total/NA	Water	8081B	323266
LCS 480-323266/2-A	Lab Control Sample	Total/NA	Water	8081B	323266
LCSD 480-323266/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	323266

Prep Batch: 323746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	3510C	
MB 480-323746/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-323746/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 323769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	8082A	323746
MB 480-323746/1-A	Method Blank	Total/NA	Water	8082A	323746
LCS 480-323746/2-A	Lab Control Sample	Total/NA	Water	8082A	323746

Metals

Prep Batch: 323369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	3005A	
MB 480-323369/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-323369/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-323369/19-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Prep Batch: 323448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	7470A	
MB 480-323448/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-323448/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-323448/17-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 323553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	7470A	323448
MB 480-323448/1-A	Method Blank	Total/NA	Water	7470A	323448
LCS 480-323448/2-A	Lab Control Sample	Total/NA	Water	7470A	323448
LCSD 480-323448/17-A	Lab Control Sample Dup	Total/NA	Water	7470A	323448

Analysis Batch: 323670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	6010C	323369
MB 480-323369/1-A	Method Blank	Total/NA	Water	6010C	323369
LCS 480-323369/2-A	Lab Control Sample	Total/NA	Water	6010C	323369
LCSD 480-323369/19-A	Lab Control Sample Dup	Total/NA	Water	6010C	323369

General Chemistry

Prep Batch: 323458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	9012B	
MB 480-323458/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-323458/2-A	Lab Control Sample	Total/NA	Water	9012B	
480-106793-1 MS	KU-MW-9-W	Total/NA	Water	9012B	

Analysis Batch: 323534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106793-1	KU-MW-9-W	Total/NA	Water	9012B	323458
MB 480-323458/1-A	Method Blank	Total/NA	Water	9012B	323458
LCS 480-323458/2-A	Lab Control Sample	Total/NA	Water	9012B	323458
480-106793-1 MS	KU-MW-9-W	Total/NA	Water	9012B	323458

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Client Sample ID: KU-MW-9-W

Lab Sample ID: 480-106793-1

Date Collected: 09/29/16 10:15

Matrix: Water

Date Received: 09/30/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	323355	10/01/16 12:26	RRS	TAL BUF
Total/NA	Prep	3510C			323449	10/03/16 07:32	CPH	TAL BUF
Total/NA	Analysis	8270D		1	323650	10/04/16 14:34	LMW	TAL BUF
Total/NA	Prep	3510C			323266	09/30/16 16:30	ARS	TAL BUF
Total/NA	Analysis	8081B		1	323633	10/04/16 11:22	MAN	TAL BUF
Total/NA	Prep	3510C			323746	10/04/16 13:00	RJS	TAL BUF
Total/NA	Analysis	8082A		1	323769	10/04/16 22:19	JMO	TAL BUF
Total/NA	Prep	3005A			323369	10/01/16 13:45	BMB	TAL BUF
Total/NA	Analysis	6010C		1	323670	10/03/16 23:19	AMH	TAL BUF
Total/NA	Prep	7470A			323448	10/03/16 08:20	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	323553	10/03/16 13:41	RMZ	TAL BUF
Total/NA	Prep	9012B			323458	10/03/16 09:20	LAW	TAL BUF
Total/NA	Analysis	9012B		1	323534	10/03/16 12:25	MDL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-106793-2

Date Collected: 09/29/16 09:00

Matrix: Water

Date Received: 09/30/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	323355	10/01/16 12:50	RRS	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Water

TestAmerica Job ID: 480-106793-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-106793-1	KU-MW-9-W	Water	09/29/16 10:15	09/30/16 09:45
480-106793-2	TRIP BLANK	Water	09/29/16 09:00	09/30/16 09:45

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmeric
THE LEADER IN ENVIRONMENTAL TES

480-106793 COC

Client Information	Sampler: L. Best	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-87384-21322.1
Client Contact: Ms. Stephanie Reynolds-Smith	Phone:	E-Mail: ryan.vandette@testamericainc.com		Page: Page 1 of 1
Company: Stantec Consulting Services Inc				Job #:

Address: 61 Commercial Street	Due Date Requested:	Analysis Requested
City: Rochester	TAT Requested (days): 10-day	
State, Zip: NY, 14614	PO #: Purchase Order not required	
Phone: 585-413-5272	WO #: 10137	
Email: stephanie.reynoldssmith@stantec.com	Project #: 48014678	
Project Name: Karges & Uhlen Phase II	SSOW#:	
Site:		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - TCL PCBs - OLM04.2	8081B - TCL Pesticides - OLM04.2	8270D - TCL SVOA - OLM04.2	8260C - (MOD) TCL list OLM04.2 + CP-51	9012B - Cyanide, Total	6010C, 7470A (& RCRA metals)	6010C, 7470A	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	A	B	D	N		
KU-MW-9-W	9/29/16	10:15	G	Water			X	X	X	X	X	X		11	
TRIPBLANK	9/29/16	09:00	G	Water						X				1	
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NYSDEC EQUIS EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kara Best	9/29/16 1530	Stantec	FEDEX	9/29/16 1530	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				9/30/16 0931	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2.5 #1

Page 30 of 31

10/7/2016

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-106793-1

Login Number: 106793
List Number: 1
Creator: Wallace, Cameron

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STANTEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-106629-1
Client Project/Site: Karges & Uhlen Phase II - Soils

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, New York 14614

Attn: Ms. Stephanie Reynolds-Smith

Denise L Giglia

Authorized for release by:
10/11/2016 11:43:17 AM
Denise Giglia, Project Management Assistant II
denise.giglia@testamericainc.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
ryan.vandette@testamericainc.com

LINKS

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Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
B	Compound was found in the blank and sample.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-106629-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-106629-1

Comments
No additional comments.

Receipt
The samples were received on 9/28/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
Method(s) 8260C: Reported analyte concentrations in the following samples are below 200 ug/kg and may be biased low due to the samples not being collected according to 5035-L/5035A-L low-level specifications: KU-B-4-S1 (480-106629-4), KU-B-4-S2 (480-106629-5), KU-B-7-S1 (480-106629-6), KU-B-7-S2 (480-106629-7), KU-B-8-S1 (480-106629-8), KU-B-8-S2 (480-106629-9), KU-B-9-S1 (480-106629-10), KU-B-9-S2 (480-106629-11), (480-106629-A-11-B MS) and (480-106629-A-11-C MS).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-322933 recovered above the upper control limit for Dibromochloromethane, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: KU-B-4-S1 (480-106629-4), KU-B-4-S2 (480-106629-5), KU-B-7-S1 (480-106629-6), KU-B-7-S2 (480-106629-7), KU-B-8-S1 (480-106629-8), KU-B-8-S2 (480-106629-9), KU-B-9-S1 (480-106629-10) and KU-B-9-S2 (480-106629-11).

Method(s) 8260C: The laboratory control sample (LCS) for preparation batch 480-322934 and analytical batch 480-322933 recovered outside control limits for the following analyte: Vinyl chloride. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are affected: KU-B-4-S1 (480-106629-4), KU-B-4-S2 (480-106629-5), KU-B-7-S1 (480-106629-6), KU-B-7-S2 (480-106629-7), KU-B-8-S1 (480-106629-8), KU-B-8-S2 (480-106629-9), KU-B-9-S1 (480-106629-10) and KU-B-9-S2 (480-106629-11).

Method(s) 8260C: The method blank for preparation batch 480-322934 and analytical batch 480-322933 contained Acetone above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated sample was not re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL.

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

GC/MS Semi VOA
Method(s) 8270D: The following samples were diluted due to, color and, viscosity: KU-SS-1 (480-106629-1), KU-SS-2 (480-106629-2), KU-SS-3 (480-106629-3) and KU-B-7-S1 (480-106629-6). Elevated reporting limits (RL) are provided.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: KU-SS-1 (480-106629-1). These results have been reported and qualified.

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

GC Semi VOA
Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: KU-SS-1 (480-106629-1), KU-SS-2 (480-106629-2), KU-SS-3 (480-106629-3) and KU-B-7-S1 (480-106629-6). As such, surrogate recoveries are below the calibration range, are estimated and not representative. 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

Job ID: 480-106629-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 9012B: The laboratory control sample (LCS) for preparation batch 480-322917 and analytical batch 480-323071 recovered outside control limits for the following analytes: Cyanide, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. KU-B-7-S1 (480-106629-6), KU-B-8-S1 (480-106629-8) and KU-B-9-S1 (480-106629-10)

Method(s) 9012B: The laboratory control sample (LCS) for preparation batch 480-322917 and analytical batch 480-323071 recovered outside control limits for the following analytes: Cyanide, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. KU-SS-2 (480-106629-2) and KU-SS-3 (480-106629-3)

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

Organic Prep
Method(s) 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: KU-SS-1 (480-106629-1). The reporting limits (RLs) are elevated proportionately.

Method(s) 3550C: The following sample: KU-B-4-S2 (480-106629-5) was decanted prior to preparation.

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

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-SS-1 — Lab Sample ID: 480-106629-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	2500	J	3500	350	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	3300	J	3500	520	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	4900		3500	560	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3800		3500	370	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1800	J	3500	450	ug/Kg	10	☼	8270D	Total/NA
Chrysene	3500		3500	780	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	6900		3500	370	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2900	J	3500	430	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	2500	J	3500	520	ug/Kg	10	☼	8270D	Total/NA
Pyrene	5200		3500	410	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	27	J	87	20	ug/Kg	50	☼	8081B	Total/NA
beta-BHC	18	J	87	16	ug/Kg	50	☼	8081B	Total/NA
gamma-BHC (Lindane)	19	J	87	16	ug/Kg	50	☼	8081B	Total/NA
Arsenic	3.5		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	49.0		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.35		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	93.5		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	70.7		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.016	J	0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	9.4		0.94	0.45	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: KU-SS-2 — Lab Sample ID: 480-106629-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	510	J	1900	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	510	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	600	J	1900	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	360	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	330	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Chrysene	610	J	1900	420	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	1000	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	320	J	1900	230	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	870	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Pyrene	840	J	1900	220	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDD	22		19	3.7	ug/Kg	10	☼	8081B	Total/NA
4,4'-DDE	7.9	J	19	4.0	ug/Kg	10	☼	8081B	Total/NA
4,4'-DDT	10	J	19	4.4	ug/Kg	10	☼	8081B	Total/NA
Arsenic	3.4		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	31.2	F1	0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.28		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	7.5		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	52.5		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.067		0.023	0.0092	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-SS-3 — Lab Sample ID: 480-106629-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	460	J	960	96	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	530	J	960	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	630	J	960	150	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: KU-SS-3 (Continued) — Lab Sample ID: 480-106629-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	480	J	960	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	400	J	960	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	560	J	960	220	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	930	J	960	100	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	390	J	960	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	360	J	960	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	750	J	960	110	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDT	6.4	J	19	4.5	ug/Kg	10	☼	8081B	Total/NA
Arsenic	3.6		2.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	39.2		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.30		0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Chromium	10.3		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	56.0		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.070		0.023	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-B-4-S1 — Lab Sample ID: 480-106629-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4.3	J	5.8	1.1	ug/Kg	1	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	1.6	J	5.8	0.37	ug/Kg	1	☼	8260C	Total/NA
4-Isopropyltoluene	0.52	J	5.8	0.46	ug/Kg	1	☼	8260C	Total/NA
Acetone	46	B	29	4.9	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	1.5	J	5.8	0.88	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	2.8	J	5.8	0.77	ug/Kg	1	☼	8260C	Total/NA
N-Propylbenzene	0.57	J	5.8	0.46	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: KU-B-4-S2 — Lab Sample ID: 480-106629-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.4	J B	29	4.9	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	2.2	J	5.8	0.75	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: KU-B-7-S1 — Lab Sample ID: 480-106629-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.81	J	5.2	0.70	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.61	J	5.2	0.39	ug/Kg	1	☼	8260C	Total/NA
Anthracene	570	J	1800	450	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	1700	J	1800	180	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	1800		1800	270	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	2400		1800	290	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1500	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1300	J	1800	230	ug/Kg	10	☼	8270D	Total/NA
Carbazole	260	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Chrysene	1800		1800	400	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	3600		1800	190	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300	J	1800	220	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	2500		1800	270	ug/Kg	10	☼	8270D	Total/NA
Pyrene	2700		1800	210	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	9.3	J	36	8.3	ug/Kg	20	☼	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-7-S1 (Continued) — Lab Sample ID: 480-106629-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-BHC	7.4	J B	36	6.4	ug/Kg	20	☼	8081B	Total/NA
beta-BHC	17	J	36	6.4	ug/Kg	20	☼	8081B	Total/NA
Dieldrin	9.5	J	36	8.5	ug/Kg	20	☼	8081B	Total/NA
Methoxychlor	15	J	36	7.3	ug/Kg	20	☼	8081B	Total/NA
PCB-1254	0.22		0.17	0.082	mg/Kg	1		8082A	Total/NA
Arsenic	5.0		2.0	0.40	mg/Kg	1	☼	6010C	Total/NA
Barium	152		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.43		0.20	0.030	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.8		0.51	0.20	mg/Kg	1	☼	6010C	Total/NA
Lead	158		1.0	0.24	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.71		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: KU-B-7-S2 — Lab Sample ID: 480-106629-7

No Detections.

Client Sample ID: KU-B-8-S1 — Lab Sample ID: 480-106629-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	0.52	J	1.7	0.40	ug/Kg	1	☼	8081B	Total/NA
alpha-BHC	0.41	J B	1.7	0.30	ug/Kg	1	☼	8081B	Total/NA
Arsenic	3.3		2.0	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	33.5		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J	0.20	0.030	mg/Kg	1	☼	6010C	Total/NA
Chromium	6.5		0.51	0.20	mg/Kg	1	☼	6010C	Total/NA
Lead	6.7		1.0	0.24	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: KU-B-8-S2 — Lab Sample ID: 480-106629-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.3	J B	27	4.6	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: KU-B-9-S1 — Lab Sample ID: 480-106629-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	24		5.2	1.1	ug/Kg	1	☼	8260C	Total/NA
alpha-BHC	0.42	J B	1.7	0.31	ug/Kg	1	☼	8081B	Total/NA
Arsenic	8.8		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	60.2		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.18	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	7.9		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	7.4		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: KU-B-9-S2 — Lab Sample ID: 480-106629-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.1	J B	26	4.4	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	27	F1	5.2	1.2	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-SS-1
Date Collected: 09/26/16 12:25
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-1
Matrix: Solid
Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		3500	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
bis (2-chloroisopropyl) ether	ND		3500	700	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4,5-Trichlorophenol	ND		3500	950	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4,6-Trichlorophenol	ND		3500	700	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4-Dichlorophenol	ND		3500	370	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4-Dimethylphenol	ND		3500	850	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4-Dinitrophenol	ND		34000	16000	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,4-Dinitrotoluene	ND		3500	720	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2,6-Dinitrotoluene	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Chloronaphthalene	ND		3500	580	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Chlorophenol	ND		3500	640	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Methylnaphthalene	ND		3500	700	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Methylphenol	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Nitroaniline	ND		6800	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
2-Nitrophenol	ND		3500	990	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
3,3'-Dichlorobenzidine	ND		6800	4100	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
3-Nitroaniline	ND		6800	970	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4,6-Dinitro-2-methylphenol	ND		6800	3500	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Bromophenyl phenyl ether	ND		3500	490	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Chloro-3-methylphenol	ND		3500	870	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Chloroaniline	ND		3500	870	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Chlorophenyl phenyl ether	ND		3500	430	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Methylphenol	ND		6800	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Nitroaniline	ND		6800	1800	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
4-Nitrophenol	ND		6800	2500	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Acenaphthene	ND		3500	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Acenaphthylene	ND		3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Acetophenone	ND		3500	470	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Anthracene	ND		3500	870	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Atrazine	ND		3500	1200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzaldehyde	ND		3500	2800	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzo[a]anthracene	**2500**	**J**	3500	350	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzo[a]pyrene	**3300**	**J**	3500	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzo[b]fluoranthene	**4900**		3500	560	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzo[g,h,i]perylene	**3800**		3500	370	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzo[k]fluoranthene	**1800**	**J**	3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Bis(2-chloroethoxy)methane	ND		3500	740	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Bis(2-chloroethyl)ether	ND		3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Bis(2-ethylhexyl) phthalate	ND		3500	1200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Butyl benzyl phthalate	ND		3500	580	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Caprolactam	ND		3500	1100	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Carbazole	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Chrysene	**3500**		3500	780	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Di-n-butyl phthalate	ND		3500	600	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Di-n-octyl phthalate	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Dibenz(a,h)anthracene	ND		3500	620	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Dibenzofuran	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Diethyl phthalate	ND		3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Dimethyl phthalate	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10

Client Sample ID: KU-SS-1
Date Collected: 09/26/16 12:25
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-1
Matrix: Solid
Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**6900**		3500	370	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Fluorene	ND		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Hexachlorobenzene	ND		3500	470	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Hexachlorobutadiene	ND		3500	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Hexachlorocyclopentadiene	ND		3500	470	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Hexachloroethane	ND		3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Indeno[1,2,3-cd]pyrene	**2900**	**J**	3500	430	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Isophorone	ND		3500	740	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
N-Nitrosodi-n-propylamine	ND		3500	600	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
N-Nitrosodiphenylamine	ND		3500	2800	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Naphthalene	ND		3500	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Nitrobenzene	ND		3500	390	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Pentachlorophenol	ND		6800	3500	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Phenanthrene	**2500**	**J**	3500	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Phenol	ND		3500	540	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Pyrene	**5200**		3500	410	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10
Benzyl alcohol	ND		6800	470	ug/Kg	☼	10/01/16 08:22	10/06/16 01:11	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*39 - 146*	*10/01/16 08:22*	*10/06/16 01:11*	*10*
2-Fluorobiphenyl	*61*		*37 - 120*	*10/01/16 08:22*	*10/06/16 01:11*	*10*
2-Fluorophenol	*69*		*18 - 120*	*10/01/16 08:22*	*10/06/16 01:11*	*10*
Nitrobenzene-d5	*64*		*34 - 132*	*10/01/16 08:22*	*10/06/16 01:11*	*10*
p-Terphenyl-d14	*65*		*65 - 153*	*10/01/16 08:22*	*10/06/16 01:11*	*10*
Phenol-d5	*56*		*11 - 120*	*10/01/16 08:22*	*10/06/16 01:11*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		87	17	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
4,4'-DDE	ND		87	18	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
4,4'-DDT	**27**	**J**	87	20	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Aldrin	ND		87	21	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
alpha-BHC	ND		87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
alpha-Chlordane	ND		87	43	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
beta-BHC	**18**	**J**	87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
delta-BHC	ND		87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Dieldrin	ND		87	21	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endosulfan I	ND		87	17	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endosulfan II	ND		87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endosulfan sulfate	ND		87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endrin	ND		87	17	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endrin aldehyde	ND		87	22	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Endrin ketone	ND		87	21	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
gamma-BHC (Lindane)	**19**	**J**	87	16	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
gamma-Chlordane	ND		87	28	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Heptachlor	ND		87	19	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Heptachlor epoxide	ND		87	22	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Methoxychlor	ND		87	18	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50
Toxaphene	ND		870	510	ug/Kg	☼	09/29/16 06:06	10/03/16 14:24	50

Client Sample ID: KU-SS-1

Lab Sample ID: 480-106629-1

Date Collected: 09/26/16 12:25
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 94.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120	09/29/16 06:06	10/03/16 14:24	50
Tetrachloro-m-xylene	0	X	30 - 124	09/29/16 06:06	10/03/16 14:24	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.035	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1221	ND		0.18	0.035	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1232	ND		0.18	0.035	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1242	ND		0.18	0.035	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1248	ND		0.18	0.035	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1254	ND		0.18	0.085	mg/Kg		09/28/16 14:49	09/29/16 00:46	1
PCB-1260	ND		0.18	0.085	mg/Kg		09/28/16 14:49	09/29/16 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		60 - 154	09/28/16 14:49	09/29/16 00:46	1
DCB Decachlorobiphenyl	100		65 - 174	09/28/16 14:49	09/29/16 00:46	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.5**		2.2	0.45	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Barium	**49.0**		0.56	0.12	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Cadmium	**0.35**		0.22	0.033	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Chromium	**93.5**		0.56	0.22	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Lead	**70.7**		1.1	0.27	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Selenium	ND		4.5	0.45	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1
Silver	ND		0.67	0.22	mg/Kg	☼	09/29/16 14:30	10/01/16 23:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.021	0.0086	mg/Kg	☼	09/29/16 09:30	09/29/16 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**9.4**		0.94	0.45	mg/Kg	☼	10/03/16 18:40	10/04/16 10:12	1

Client Sample ID: KU-SS-2

Lab Sample ID: 480-106629-2

Date Collected: 09/27/16 10:00
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1900	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
bis (2-chloroisopropyl) ether	ND		1900	380	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4,5-Trichlorophenol	ND		1900	510	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4,6-Trichlorophenol	ND		1900	380	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4-Dimethylphenol	ND		1900	450	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4-Dinitrophenol	ND		18000	8700	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,4-Dinitrotoluene	ND		1900	390	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10

Client Sample ID: KU-SS-2
Date Collected: 09/27/16 10:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-2
Matrix: Solid
Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		1900	340	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2-Methylnaphthalene	ND		1900	380	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2-Nitroaniline	ND		3700	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
2-Nitrophenol	ND		1900	530	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
3,3'-Dichlorobenzidine	ND		3700	2200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
3-Nitroaniline	ND		3700	520	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4,6-Dinitro-2-methylphenol	ND		3700	1900	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Chloro-3-methylphenol	ND		1900	460	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Chloroaniline	ND		1900	460	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Methylphenol	ND		3700	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Nitroaniline	ND		3700	980	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
4-Nitrophenol	ND		3700	1300	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Acenaphthene	ND		1900	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Acetophenone	ND		1900	250	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Anthracene	ND		1900	460	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Atrazine	ND		1900	650	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzo[a]anthracene	**510**	**J**	1900	190	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzo[a]pyrene	**510**	**J**	1900	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzo[b]fluoranthene	**600**	**J**	1900	300	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzo[g,h,i]perylene	**360**	**J**	1900	200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzo[k]fluoranthene	**330**	**J**	1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Bis(2-chloroethoxy)methane	ND		1900	400	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Bis(2-ethylhexyl) phthalate	ND		1900	640	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Caprolactam	ND		1900	560	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Carbazole	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Chrysene	**610**	**J**	1900	420	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Dibenzofuran	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Fluoranthene	**1000**	**J**	1900	200	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Fluorene	ND		1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Hexachlorobenzene	ND		1900	250	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Hexachlorocyclopentadiene	ND		1900	250	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Indeno[1,2,3-cd]pyrene	**320**	**J**	1900	230	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Isophorone	ND		1900	400	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10

Client Sample ID: KU-SS-2
Date Collected: 09/27/16 10:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-2
Matrix: Solid
Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1900	240	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Pentachlorophenol	ND		3700	1900	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Phenanthrene	**870**	**J**	1900	280	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Phenol	ND		1900	290	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Pyrene	**840**	**J**	1900	220	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10
Benzyl alcohol	ND		3700	250	ug/Kg	☼	10/01/16 08:22	10/06/16 01:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*60*		*39 - 146*	*10/01/16 08:22*	*10/06/16 01:37*	*10*
2-Fluorobiphenyl	*75*		*37 - 120*	*10/01/16 08:22*	*10/06/16 01:37*	*10*
2-Fluorophenol	*64*		*18 - 120*	*10/01/16 08:22*	*10/06/16 01:37*	*10*
Nitrobenzene-d5	*72*		*34 - 132*	*10/01/16 08:22*	*10/06/16 01:37*	*10*
p-Terphenyl-d14	*68*		*65 - 153*	*10/01/16 08:22*	*10/06/16 01:37*	*10*
Phenol-d5	*64*		*11 - 120*	*10/01/16 08:22*	*10/06/16 01:37*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**22**		19	3.7	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
4,4'-DDE	**7.9**	**J**	19	4.0	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
4,4'-DDT	**10**	**J**	19	4.4	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Aldrin	ND		19	4.6	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
alpha-BHC	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
alpha-Chlordane	ND		19	9.4	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
beta-BHC	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
delta-BHC	ND		19	3.5	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Dieldrin	ND		19	4.5	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endosulfan I	ND		19	3.6	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endosulfan II	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endosulfan sulfate	ND		19	3.5	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endrin	ND		19	3.7	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endrin aldehyde	ND		19	4.8	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Endrin ketone	ND		19	4.6	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
gamma-BHC (Lindane)	ND		19	3.5	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
gamma-Chlordane	ND		19	6.0	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Heptachlor	ND		19	4.1	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Heptachlor epoxide	ND		19	4.9	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Methoxychlor	ND		19	3.8	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10
Toxaphene	ND		190	110	ug/Kg	☼	09/29/16 06:06	10/03/16 14:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*45 - 120*	*09/29/16 06:06*	*10/03/16 14:44*	*10*
Tetrachloro-m-xylene	*93*		*30 - 124*	*09/29/16 06:06*	*10/03/16 14:44*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg		09/28/16 14:49	09/29/16 01:02	1
PCB-1221	ND		0.24	0.047	mg/Kg		09/28/16 14:49	09/29/16 01:02	1
PCB-1232	ND		0.24	0.047	mg/Kg		09/28/16 14:49	09/29/16 01:02	1
PCB-1242	ND		0.24	0.047	mg/Kg		09/28/16 14:49	09/29/16 01:02	1

Client Sample ID: KU-SS-2

Date Collected: 09/27/16 10:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-2
Matrix: Solid
Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.24	0.047	mg/Kg		09/28/16 14:49	09/29/16 01:02	1
PCB-1254	ND		0.24	0.11	mg/Kg		09/28/16 14:49	09/29/16 01:02	1
PCB-1260	ND		0.24	0.11	mg/Kg		09/28/16 14:49	09/29/16 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*60 - 154*	*09/28/16 14:49*	*09/29/16 01:02*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*09/28/16 14:49*	*09/29/16 01:02*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.4**		2.2	0.44	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Barium	**31.2**	**F1**	0.55	0.12	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Cadmium	**0.28**		0.22	0.033	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Chromium	**7.5**		0.55	0.22	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Lead	**52.5**		1.1	0.26	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Selenium	ND		4.4	0.44	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1
Silver	ND		0.66	0.22	mg/Kg	☼	09/29/16 14:30	10/01/16 23:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.067**		0.023	0.0092	mg/Kg	☼	09/29/16 09:30	09/29/16 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	*	1.1	0.51	mg/Kg	☼	09/28/16 17:45	09/29/16 12:50	1

Client Sample ID: KU-SS-3

Date Collected: 09/27/16 07:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-3
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
bis (2-chloroisopropyl) ether	ND		960	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4,5-Trichlorophenol	ND		960	260	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4,6-Trichlorophenol	ND		960	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4-Dichlorophenol	ND		960	100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4-Dimethylphenol	ND		960	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4-Dinitrophenol	ND		9400	4500	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,4-Dinitrotoluene	ND		960	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2,6-Dinitrotoluene	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Chloronaphthalene	ND		960	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Chlorophenol	ND		960	180	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Methylnaphthalene	ND		960	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Methylphenol	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Nitroaniline	ND		1900	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
2-Nitrophenol	ND		960	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
3,3'-Dichlorobenzidine	ND		1900	1100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
3-Nitroaniline	ND		1900	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4,6-Dinitro-2-methylphenol	ND		1900	960	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Bromophenyl phenyl ether	ND		960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5

Client Sample ID: KU-SS-3
Date Collected: 09/27/16 07:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-3
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		960	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Chloroaniline	ND		960	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Chlorophenyl phenyl ether	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Methylphenol	ND		1900	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Nitroaniline	ND		1900	510	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
4-Nitrophenol	ND		1900	680	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Acenaphthene	ND		960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Acenaphthylene	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Acetophenone	ND		960	130	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Anthracene	ND		960	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Atrazine	ND		960	330	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzaldehyde	ND		960	770	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzo[a]anthracene	**460**	**J**	960	96	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzo[a]pyrene	**530**	**J**	960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzo[b]fluoranthene	**630**	**J**	960	150	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzo[g,h,i]perylene	**480**	**J**	960	100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzo[k]fluoranthene	**400**	**J**	960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Bis(2-chloroethoxy)methane	ND		960	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Bis(2-chloroethyl)ether	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Bis(2-ethylhexyl) phthalate	ND		960	330	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Butyl benzyl phthalate	ND		960	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Caprolactam	ND		960	290	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Carbazole	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Chrysene	**560**	**J**	960	220	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Di-n-butyl phthalate	ND		960	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Di-n-octyl phthalate	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Dibenz(a,h)anthracene	ND		960	170	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Dibenzofuran	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Diethyl phthalate	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Dimethyl phthalate	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Fluoranthene	**930**	**J**	960	100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Fluorene	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Hexachlorobenzene	ND		960	130	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Hexachlorobutadiene	ND		960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Hexachlorocyclopentadiene	ND		960	130	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Hexachloroethane	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Indeno[1,2,3-cd]pyrene	**390**	**J**	960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Isophorone	ND		960	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
N-Nitrosodi-n-propylamine	ND		960	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
N-Nitrosodiphenylamine	ND		960	780	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Naphthalene	ND		960	120	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Nitrobenzene	ND		960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Pentachlorophenol	ND		1900	960	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Phenanthrene	**360**	**J**	960	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Phenol	ND		960	150	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Pyrene	**750**	**J**	960	110	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5
Benzyl alcohol	ND		1900	130	ug/Kg	☼	10/01/16 08:22	10/06/16 02:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*55*		*39 - 146*	*10/01/16 08:22*	*10/06/16 02:04*	*5*

Client Sample ID: KU-SS-3
Date Collected: 09/27/16 07:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-3
Matrix: Solid
Percent Solids: 85.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*68*		*37 - 120*	*10/01/16 08:22*	*10/06/16 02:04*	*5*
2-Fluorophenol	*68*		*18 - 120*	*10/01/16 08:22*	*10/06/16 02:04*	*5*
Nitrobenzene-d5	*72*		*34 - 132*	*10/01/16 08:22*	*10/06/16 02:04*	*5*
p-Terphenyl-d14	*68*		*65 - 153*	*10/01/16 08:22*	*10/06/16 02:04*	*5*
Phenol-d5	*69*		*11 - 120*	*10/01/16 08:22*	*10/06/16 02:04*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		19	3.7	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
4,4'-DDE	ND		19	4.0	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
4,4'-DDT	**6.4**	**J**	19	4.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Aldrin	ND		19	4.7	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
alpha-BHC	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
alpha-Chlordane	ND		19	9.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
beta-BHC	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
delta-BHC	ND		19	3.6	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Dieldrin	ND		19	4.6	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endosulfan I	ND		19	3.7	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endosulfan II	ND		19	3.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endosulfan sulfate	ND		19	3.6	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endrin	ND		19	3.8	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endrin aldehyde	ND		19	4.9	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Endrin ketone	ND		19	4.7	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
gamma-BHC (Lindane)	ND		19	3.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
gamma-Chlordane	ND		19	6.1	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Heptachlor	ND		19	4.1	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Heptachlor epoxide	ND		19	4.9	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Methoxychlor	ND		19	3.9	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10
Toxaphene	ND		190	110	ug/Kg	☼	09/29/16 06:06	10/03/16 15:03	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*60*		*45 - 120*	*09/29/16 06:06*	*10/03/16 15:03*	*10*
Tetrachloro-m-xylene	*72*		*30 - 124*	*09/29/16 06:06*	*10/03/16 15:03*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.17	0.033	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1221	ND		0.17	0.033	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1232	ND		0.17	0.033	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1242	ND		0.17	0.033	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1248	ND		0.17	0.033	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1254	ND		0.17	0.080	mg/Kg		09/28/16 14:49	09/29/16 01:18	1
PCB-1260	ND		0.17	0.080	mg/Kg		09/28/16 14:49	09/29/16 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*101*		*60 - 154*	*09/28/16 14:49*	*09/29/16 01:18*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*09/28/16 14:49*	*09/29/16 01:18*	*1*

Client Sample ID: KU-SS-3

Lab Sample ID: 480-106629-3
Date Collected: 09/27/16 07:50
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 85.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.6**		2.3	0.46	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Barium	**39.2**		0.57	0.13	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Cadmium	**0.30**		0.23	0.034	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Chromium	**10.3**		0.57	0.23	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Lead	**56.0**		1.1	0.27	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Selenium	ND		4.6	0.46	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1
Silver	ND		0.68	0.23	mg/Kg	☼	09/29/16 14:30	10/01/16 23:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.070**		0.023	0.0094	mg/Kg	☼	09/29/16 09:30	09/29/16 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	*	1.1	0.53	mg/Kg	☼	09/28/16 17:45	09/29/16 12:51	1

Client Sample ID: KU-B-4-S1

Lab Sample ID: 480-106629-4
Date Collected: 09/26/16 15:25
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 86.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.94	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,1,2-Trichloroethane	ND		5.8	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,1-Dichloroethane	ND		5.8	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2,4-Trimethylbenzene	**4.3**	**J**	5.8	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2-Dichlorobenzene	ND		5.8	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,3,5-Trimethylbenzene	**1.6**	**J**	5.8	0.37	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,4-Dichlorobenzene	ND		5.8	0.81	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
4-Isopropyltoluene	**0.52**	**J**	5.8	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Acetone	**46**	**B**	29	4.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Benzene	ND		5.8	0.28	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Bromoform	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Bromomethane	ND		5.8	0.52	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Carbon tetrachloride	ND		5.8	0.56	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Chlorobenzene	ND		5.8	0.76	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Dibromochloromethane	ND		5.8	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1

Client Sample ID: KU-B-4-S1

Date Collected: 09/26/16 15:25
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-4

Matrix: Solid
Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		5.8	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
cis-1,2-Dichloroethene	ND		5.8	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Cyclohexane	ND		5.8	0.81	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Bromodichloromethane	ND		5.8	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
1,2-Dibromoethane	ND		5.8	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Isopropylbenzene	ND		5.8	0.87	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Methylcyclohexane	**1.5**	**J**	5.8	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Methylene Chloride	ND		5.8	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
m,p-Xylene	ND		12	0.97	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Naphthalene	**2.8**	**J**	5.8	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
n-Butylbenzene	ND		5.8	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
N-Propylbenzene	**0.57**	**J**	5.8	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
o-Xylene	ND		5.8	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
sec-Butylbenzene	ND		5.8	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Tetrachloroethene	ND		5.8	0.78	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Toluene	ND		5.8	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
trans-1,2-Dichloroethene	ND		5.8	0.60	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
trans-1,3-Dichloropropene	ND		5.8	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Trichloroethene	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Vinyl chloride	ND	*	5.8	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Xylenes, Total	ND		12	0.97	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
cis-1,3-Dichloropropene	ND		5.8	0.83	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
Styrene	ND		5.8	0.29	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1
tert-Butylbenzene	ND		5.8	0.60	ug/Kg	☼	09/28/16 21:07	09/29/16 05:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 126*	*09/28/16 21:07*	*09/29/16 05:15*	*1*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*	*09/28/16 21:07*	*09/29/16 05:15*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*09/28/16 21:07*	*09/29/16 05:15*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*09/28/16 21:07*	*09/29/16 05:15*	*1*

Client Sample ID: KU-B-4-S2

Date Collected: 09/26/16 16:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-5

Matrix: Solid
Percent Solids: 84.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.95	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,1,2-Trichloroethane	ND		5.8	0.76	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,1-Dichloroethane	ND		5.8	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2,4-Trichlorobenzene	ND		5.8	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1

Client Sample ID: KU-B-4-S2
Date Collected: 09/26/16 16:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-5
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.8	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2-Dichlorobenzene	ND		5.8	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,3,5-Trimethylbenzene	ND		5.8	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,4-Dichlorobenzene	ND		5.8	0.82	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
4-Isopropyltoluene	ND		5.8	0.47	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Acetone	**5.4**	**J B**	29	4.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Benzene	ND		5.8	0.29	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Bromoform	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Bromomethane	ND		5.8	0.53	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Carbon tetrachloride	ND		5.8	0.57	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Chlorobenzene	ND		5.8	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Dibromochloromethane	ND		5.8	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Chloroform	ND		5.8	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
cis-1,2-Dichloroethene	**2.2**	**J**	5.8	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Cyclohexane	ND		5.8	0.82	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Bromodichloromethane	ND		5.8	0.78	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
1,2-Dibromoethane	ND		5.8	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Isopropylbenzene	ND		5.8	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Methylcyclohexane	ND		5.8	0.89	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Methylene Chloride	ND		5.8	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
m,p-Xylene	ND		12	0.98	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Naphthalene	ND		5.8	0.78	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
n-Butylbenzene	ND		5.8	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
N-Propylbenzene	ND		5.8	0.47	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
o-Xylene	ND		5.8	0.76	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
sec-Butylbenzene	ND		5.8	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Tetrachloroethene	ND		5.8	0.78	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Toluene	ND		5.8	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
trans-1,2-Dichloroethene	ND		5.8	0.60	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
trans-1,3-Dichloropropene	ND		5.8	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Trichloroethene	ND		5.8	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Vinyl chloride	ND	*	5.8	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
Xylenes, Total	ND		12	0.98	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
cis-1,3-Dichloropropene	ND		5.8	0.84	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1

Client Sample ID: KU-B-4-S2
Date Collected: 09/26/16 16:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-5
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.8	0.29	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1
tert-Butylbenzene	ND		5.8	0.61	ug/Kg	☼	09/28/16 21:07	09/29/16 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*09/28/16 21:07*	*09/29/16 05:41*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/28/16 21:07*	*09/29/16 05:41*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*09/28/16 21:07*	*09/29/16 05:41*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*09/28/16 21:07*	*09/29/16 05:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		200	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4-Dinitrophenol	ND		1900	920	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Chlorophenol	ND		200	36	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Methylphenol	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
3,3'-Dichlorobenzidine	ND		390	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Methylphenol	ND		390	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Acenaphthene	ND		200	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Acenaphthylene	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Acetophenone	ND		200	27	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Anthracene	ND		200	49	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Atrazine	ND		200	69	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzaldehyde	ND		200	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzo[a]pyrene	ND		200	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1

Client Sample ID: KU-B-4-S2

Date Collected: 09/26/16 16:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-5
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Caprolactam	ND		200	60	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Carbazole	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Chrysene	ND		200	44	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Dibenzofuran	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Fluoranthene	ND		200	21	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Fluorene	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Hexachloroethane	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Isophorone	ND		200	42	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Naphthalene	ND		200	26	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Nitrobenzene	ND		200	22	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Phenanthrene	ND		200	29	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Phenol	ND		200	30	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Pyrene	ND		200	23	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1
Benzyl alcohol	ND		390	27	ug/Kg	☼	10/01/16 08:22	10/06/16 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*39 - 146*	*10/01/16 08:22*	*10/06/16 02:31*	*1*
2-Fluorobiphenyl	*59*		*37 - 120*	*10/01/16 08:22*	*10/06/16 02:31*	*1*
2-Fluorophenol	*59*		*18 - 120*	*10/01/16 08:22*	*10/06/16 02:31*	*1*
Nitrobenzene-d5	*58*		*34 - 132*	*10/01/16 08:22*	*10/06/16 02:31*	*1*
p-Terphenyl-d14	*75*		*65 - 153*	*10/01/16 08:22*	*10/06/16 02:31*	*1*
Phenol-d5	*62*		*11 - 120*	*10/01/16 08:22*	*10/06/16 02:31*	*1*

Client Sample ID: KU-B-7-S1

Date Collected: 09/26/16 09:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-6
Matrix: Solid
Percent Solids: 92.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2,4-Trimethylbenzene	ND		5.2	1.0	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1

Client Sample ID: KU-B-7-S1
Date Collected: 09/26/16 09:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-6
Matrix: Solid
Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,3,5-Trimethylbenzene	ND		5.2	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
4-Isopropyltoluene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Acetone	ND		26	4.4	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Benzene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Carbon tetrachloride	ND		5.2	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Chloromethane	ND		5.2	0.31	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Methyl acetate	ND		26	3.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Methylcyclohexane	ND		5.2	0.79	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
m,p-Xylene	ND		10	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Naphthalene	**0.81**	**J**	5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
n-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
N-Propylbenzene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
o-Xylene	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
sec-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Toluene	**0.61**	**J**	5.2	0.39	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Trichloroethene	ND		5.2	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Trichlorofluoromethane	ND		5.2	0.49	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Vinyl chloride	ND	*	5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1
Styrene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1

Client Sample ID: KU-B-7-S1
Date Collected: 09/26/16 09:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-6
Matrix: Solid
Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*09/28/16 21:07*	*09/29/16 06:06*	*1*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*	*09/28/16 21:07*	*09/29/16 06:06*	*1*
Toluene-d8 (Surr)	*106*		*71 - 125*	*09/28/16 21:07*	*09/29/16 06:06*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/28/16 21:07*	*09/29/16 06:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1800	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
bis (2-chloroisopropyl) ether	ND		1800	360	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4,5-Trichlorophenol	ND		1800	490	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4,6-Trichlorophenol	ND		1800	360	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4-Dimethylphenol	ND		1800	440	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4-Dinitrophenol	ND		18000	8300	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,4-Dinitrotoluene	ND		1800	370	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Chloronaphthalene	ND		1800	300	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Chlorophenol	ND		1800	330	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Methylnaphthalene	ND		1800	360	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Nitroaniline	ND		3500	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
2-Nitrophenol	ND		1800	510	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
3,3'-Dichlorobenzidine	ND		3500	2100	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
3-Nitroaniline	ND		3500	500	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4,6-Dinitro-2-methylphenol	ND		3500	1800	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Bromophenyl phenyl ether	ND		1800	250	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Chloro-3-methylphenol	ND		1800	450	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Chloroaniline	ND		1800	450	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Chlorophenyl phenyl ether	ND		1800	220	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Methylphenol	ND		3500	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Nitroaniline	ND		3500	950	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
4-Nitrophenol	ND		3500	1300	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Acenaphthene	ND		1800	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Acenaphthylene	ND		1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Acetophenone	ND		1800	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Anthracene	**570**	**J**	1800	450	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Atrazine	ND		1800	630	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzo[a]anthracene	**1700**	**J**	1800	180	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzo[a]pyrene	**1800**		1800	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzo[b]fluoranthene	**2400**		1800	290	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzo[g,h,i]perylene	**1500**	**J**	1800	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzo[k]fluoranthene	**1300**	**J**	1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Bis(2-chloroethoxy)methane	ND		1800	380	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Bis(2-chloroethyl)ether	ND		1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Bis(2-ethylhexyl) phthalate	ND		1800	620	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Butyl benzyl phthalate	ND		1800	300	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10

Client Sample ID: KU-B-7-S1
Date Collected: 09/26/16 09:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-6
Matrix: Solid
Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		1800	540	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Carbazole	**260**	**J**	1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Chrysene	**1800**		1800	400	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Di-n-butyl phthalate	ND		1800	310	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Dibenzofuran	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Diethyl phthalate	ND		1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Fluoranthene	**3600**		1800	190	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Fluorene	ND		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Hexachlorobenzene	ND		1800	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Hexachlorobutadiene	ND		1800	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Hexachlorocyclopentadiene	ND		1800	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Hexachloroethane	ND		1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Indeno[1,2,3-cd]pyrene	**1300**	**J**	1800	220	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Isophorone	ND		1800	380	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
N-Nitrosodi-n-propylamine	ND		1800	310	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
N-Nitrosodiphenylamine	ND		1800	1500	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Naphthalene	ND		1800	230	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Pentachlorophenol	ND		3500	1800	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Phenanthrene	**2500**		1800	270	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Phenol	ND		1800	280	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Pyrene	**2700**		1800	210	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10
Benzyl alcohol	ND		3500	240	ug/Kg	☼	10/01/16 08:22	10/06/16 02:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*59*		*39 - 146*	*10/01/16 08:22*	*10/06/16 02:58*	*10*
2-Fluorobiphenyl	*64*		*37 - 120*	*10/01/16 08:22*	*10/06/16 02:58*	*10*
2-Fluorophenol	*66*		*18 - 120*	*10/01/16 08:22*	*10/06/16 02:58*	*10*
Nitrobenzene-d5	*62*		*34 - 132*	*10/01/16 08:22*	*10/06/16 02:58*	*10*
p-Terphenyl-d14	*75*		*65 - 153*	*10/01/16 08:22*	*10/06/16 02:58*	*10*
Phenol-d5	*65*		*11 - 120*	*10/01/16 08:22*	*10/06/16 02:58*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		36	6.9	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
4,4'-DDE	ND		36	7.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
4,4'-DDT	**9.3**	**J**	36	8.3	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Aldrin	ND		36	8.8	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
alpha-BHC	**7.4**	**J B**	36	6.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
alpha-Chlordane	ND		36	18	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
beta-BHC	**17**	**J**	36	6.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
delta-BHC	ND		36	6.6	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Dieldrin	**9.5**	**J**	36	8.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Endosulfan I	ND		36	6.8	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Endosulfan II	ND		36	6.4	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Endosulfan sulfate	ND		36	6.6	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Endrin	ND		36	7.0	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20

Client Sample ID: KU-B-7-S1

Date Collected: 09/26/16 09:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-6

Matrix: Solid
Percent Solids: 92.2

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		36	9.1	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Endrin ketone	ND		36	8.8	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
gamma-BHC (Lindane)	ND		36	6.5	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
gamma-Chlordane	ND		36	11	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Heptachlor	ND		36	7.7	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Heptachlor epoxide	ND		36	9.2	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Methoxychlor	**15**	**J**	36	7.3	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20
Toxaphene	ND		360	210	ug/Kg	☼	09/29/16 06:06	10/03/16 15:23	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*09/29/16 06:06*	*10/03/16 15:23*	*20*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*09/29/16 06:06*	*10/03/16 15:23*	*20*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.17	0.034	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1221	ND		0.17	0.034	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1232	ND		0.17	0.034	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1242	ND		0.17	0.034	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1248	ND		0.17	0.034	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1254	**0.22**		0.17	0.082	mg/Kg		09/28/16 14:49	09/29/16 01:34	1
PCB-1260	ND		0.17	0.082	mg/Kg		09/28/16 14:49	09/29/16 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*103*		*60 - 154*	*09/28/16 14:49*	*09/29/16 01:34*	*1*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*09/28/16 14:49*	*09/29/16 01:34*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.0**		2.0	0.40	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Barium	**152**		0.51	0.11	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Cadmium	**0.43**		0.20	0.030	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Chromium	**13.8**		0.51	0.20	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Lead	**158**		1.0	0.24	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Selenium	ND		4.0	0.40	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1
Silver	ND		0.61	0.20	mg/Kg	☼	09/29/16 14:30	10/01/16 23:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.71**		0.022	0.0088	mg/Kg	☼	09/29/16 09:30	09/29/16 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	*	0.99	0.48	mg/Kg	☼	09/28/16 17:45	09/29/16 12:53	1

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-7-S2
Date Collected: 09/26/16 09:35
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-7
Matrix: Solid
Percent Solids: 86.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.5	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,1,2,2-Tetrachloroethane	ND		5.5	0.90	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,1,2-Trichloroethane	ND		5.5	0.72	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,1-Dichloroethane	ND		5.5	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,1-Dichloroethene	ND		5.5	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2,4-Trichlorobenzene	ND		5.5	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2,4-Trimethylbenzene	ND		5.5	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2-Dibromo-3-Chloropropane	ND		5.5	2.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2-Dichlorobenzene	ND		5.5	0.43	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2-Dichloroethane	ND		5.5	0.28	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2-Dichloropropane	ND		5.5	2.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,3,5-Trimethylbenzene	ND		5.5	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,3-Dichlorobenzene	ND		5.5	0.28	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,4-Dichlorobenzene	ND		5.5	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
2-Butanone (MEK)	ND		28	2.0	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
4-Isopropyltoluene	ND		5.5	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Acetone	ND		28	4.7	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Benzene	ND		5.5	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Bromoform	ND		5.5	2.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Bromomethane	ND		5.5	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Carbon disulfide	ND		5.5	2.8	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Carbon tetrachloride	ND		5.5	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Chlorobenzene	ND		5.5	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Dibromochloromethane	ND		5.5	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Chloroethane	ND		5.5	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Chloroform	ND		5.5	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Chloromethane	ND		5.5	0.33	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
cis-1,2-Dichloroethene	ND		5.5	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Cyclohexane	ND		5.5	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Bromodichloromethane	ND		5.5	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Dichlorodifluoromethane	ND		5.5	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
1,2-Dibromoethane	ND		5.5	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Isopropylbenzene	ND		5.5	0.83	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Methyl acetate	ND		28	3.3	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Methylcyclohexane	ND		5.5	0.84	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Methylene Chloride	ND		5.5	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
m,p-Xylene	ND		11	0.93	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Naphthalene	ND		5.5	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
n-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
N-Propylbenzene	ND		5.5	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
o-Xylene	ND		5.5	0.72	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
sec-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Tetrachloroethene	ND		5.5	0.74	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Toluene	ND		5.5	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1

Client Sample ID: KU-B-7-S2

Date Collected: 09/26/16 09:35
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-7
Matrix: Solid
Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Trichloroethene	ND		5.5	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Trichlorofluoromethane	ND		5.5	0.52	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Vinyl chloride	ND	*	5.5	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Xylenes, Total	ND		11	0.93	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
cis-1,3-Dichloropropene	ND		5.5	0.80	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
Styrene	ND		5.5	0.28	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1
tert-Butylbenzene	ND		5.5	0.58	ug/Kg	☼	09/28/16 21:07	09/29/16 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 126*	*09/28/16 21:07*	*09/29/16 06:32*	*1*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*	*09/28/16 21:07*	*09/29/16 06:32*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*09/28/16 21:07*	*09/29/16 06:32*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/28/16 21:07*	*09/29/16 06:32*	*1*

Client Sample ID: KU-B-8-S1

Date Collected: 09/26/16 11:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-8
Matrix: Solid
Percent Solids: 97.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.1	0.37	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,1,2,2-Tetrachloroethane	ND		5.1	0.82	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.1	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,1,2-Trichloroethane	ND		5.1	0.66	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,1-Dichloroethane	ND		5.1	0.62	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,1-Dichloroethene	ND		5.1	0.62	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2,4-Trichlorobenzene	ND		5.1	0.31	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2,4-Trimethylbenzene	ND		5.1	0.97	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2-Dibromo-3-Chloropropane	ND		5.1	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2-Dichlorobenzene	ND		5.1	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2-Dichloroethane	ND		5.1	0.25	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2-Dichloropropane	ND		5.1	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,3,5-Trimethylbenzene	ND		5.1	0.33	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,3-Dichlorobenzene	ND		5.1	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,4-Dichlorobenzene	ND		5.1	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
2-Butanone (MEK)	ND		25	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
4-Isopropyltoluene	ND		5.1	0.41	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.7	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Acetone	ND		25	4.3	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Benzene	ND		5.1	0.25	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Bromoform	ND		5.1	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Bromomethane	ND		5.1	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Carbon disulfide	ND		5.1	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Carbon tetrachloride	ND		5.1	0.49	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Chlorobenzene	ND		5.1	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Dibromochloromethane	ND		5.1	0.65	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Chloroethane	ND		5.1	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-8-S1
Date Collected: 09/26/16 11:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-8
Matrix: Solid
Percent Solids: 97.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		5.1	0.31	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Chloromethane	ND		5.1	0.31	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
cis-1,2-Dichloroethene	ND		5.1	0.65	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Cyclohexane	ND		5.1	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Bromodichloromethane	ND		5.1	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Dichlorodifluoromethane	ND		5.1	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Ethylbenzene	ND		5.1	0.35	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
1,2-Dibromoethane	ND		5.1	0.65	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Isopropylbenzene	ND		5.1	0.76	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Methyl acetate	ND		25	3.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Methyl tert-butyl ether	ND		5.1	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Methylcyclohexane	ND		5.1	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Methylene Chloride	ND		5.1	2.3	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
m,p-Xylene	ND		10	0.85	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Naphthalene	ND		5.1	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
n-Butylbenzene	ND		5.1	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
N-Propylbenzene	ND		5.1	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
o-Xylene	ND		5.1	0.66	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
sec-Butylbenzene	ND		5.1	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Tetrachloroethene	ND		5.1	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Toluene	ND		5.1	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
trans-1,2-Dichloroethene	ND		5.1	0.52	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
trans-1,3-Dichloropropene	ND		5.1	2.2	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Trichloroethene	ND		5.1	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Trichlorofluoromethane	ND		5.1	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Vinyl chloride	ND	*	5.1	0.62	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Xylenes, Total	ND		10	0.85	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
cis-1,3-Dichloropropene	ND		5.1	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
Styrene	ND		5.1	0.25	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1
tert-Butylbenzene	ND		5.1	0.53	ug/Kg	☼	09/28/16 21:07	09/29/16 06:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*09/28/16 21:07*	*09/29/16 06:57*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/28/16 21:07*	*09/29/16 06:57*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*09/28/16 21:07*	*09/29/16 06:57*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/28/16 21:07*	*09/29/16 06:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4,5-Trichlorophenol	ND		170	47	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4-Dichlorophenol	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4-Dimethylphenol	ND		170	42	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4-Dinitrophenol	ND		1700	800	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,4-Dinitrotoluene	ND		170	36	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2-Chloronaphthalene	ND		170	28	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2-Chlorophenol	ND		170	31	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1

Client Sample ID: KU-B-8-S1
Date Collected: 09/26/16 11:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-8
Matrix: Solid
Percent Solids: 97.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		170	34	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2-Methylphenol	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2-Nitroaniline	ND		330	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
2-Nitrophenol	ND		170	49	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
3-Nitroaniline	ND		330	48	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Chloro-3-methylphenol	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Chloroaniline	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Methylphenol	ND		330	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Nitroaniline	ND		330	90	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
4-Nitrophenol	ND		330	120	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Acenaphthene	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Acenaphthylene	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Acetophenone	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Anthracene	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Atrazine	ND		170	60	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzaldehyde	ND		170	140	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzo[a]anthracene	ND		170	17	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzo[a]pyrene	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Bis(2-chloroethoxy)methane	ND		170	37	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Bis(2-ethylhexyl) phthalate	ND		170	59	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Butyl benzyl phthalate	ND		170	28	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Caprolactam	ND		170	52	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Carbazole	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Chrysene	ND		170	39	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Di-n-butyl phthalate	ND		170	29	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Di-n-octyl phthalate	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Dibenzofuran	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Diethyl phthalate	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Dimethyl phthalate	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Fluoranthene	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Fluorene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Hexachlorobenzene	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Hexachlorobutadiene	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Hexachloroethane	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Isophorone	ND		170	37	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Naphthalene	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1

Client Sample ID: KU-B-8-S1
Date Collected: 09/26/16 11:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-8
Matrix: Solid
Percent Solids: 97.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		170	19	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Pentachlorophenol	ND		330	170	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Phenanthrene	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Phenol	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Pyrene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1
Benzyl alcohol	ND		330	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*74*		*39 - 146*	*10/01/16 08:22*	*10/06/16 03:25*	*1*
2-Fluorobiphenyl	*70*		*37 - 120*	*10/01/16 08:22*	*10/06/16 03:25*	*1*
2-Fluorophenol	*62*		*18 - 120*	*10/01/16 08:22*	*10/06/16 03:25*	*1*
Nitrobenzene-d5	*66*		*34 - 132*	*10/01/16 08:22*	*10/06/16 03:25*	*1*
p-Terphenyl-d14	*85*		*65 - 153*	*10/01/16 08:22*	*10/06/16 03:25*	*1*
Phenol-d5	*64*		*11 - 120*	*10/01/16 08:22*	*10/06/16 03:25*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.33	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
4,4'-DDE	ND		1.7	0.36	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
4,4'-DDT	**0.52**	**J**	1.7	0.40	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Aldrin	ND		1.7	0.42	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
alpha-BHC	**0.41**	**J B**	1.7	0.30	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
alpha-Chlordane	ND		1.7	0.84	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
beta-BHC	ND		1.7	0.30	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
delta-BHC	ND		1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Dieldrin	ND		1.7	0.41	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endosulfan I	ND		1.7	0.32	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endosulfan II	ND		1.7	0.30	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endosulfan sulfate	ND		1.7	0.32	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endrin	ND		1.7	0.33	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Endrin ketone	ND		1.7	0.42	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
gamma-Chlordane	ND		1.7	0.54	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Heptachlor	ND		1.7	0.37	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Heptachlor epoxide	ND		1.7	0.44	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Methoxychlor	ND		1.7	0.35	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1
Toxaphene	ND		17	9.8	ug/Kg	☼	09/29/16 06:06	10/03/16 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*45 - 120*	*09/29/16 06:06*	*10/03/16 15:42*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*09/29/16 06:06*	*10/03/16 15:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.036	mg/Kg		09/28/16 14:49	09/29/16 02:22	1
PCB-1221	ND		0.18	0.036	mg/Kg		09/28/16 14:49	09/29/16 02:22	1
PCB-1232	ND		0.18	0.036	mg/Kg		09/28/16 14:49	09/29/16 02:22	1
PCB-1242	ND		0.18	0.036	mg/Kg		09/28/16 14:49	09/29/16 02:22	1
PCB-1248	ND		0.18	0.036	mg/Kg		09/28/16 14:49	09/29/16 02:22	1

Client Sample ID: KU-B-8-S1

Date Collected: 09/26/16 11:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-8
Matrix: Solid
Percent Solids: 97.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.18	0.086	mg/Kg		09/28/16 14:49	09/29/16 02:22	1
PCB-1260	ND		0.18	0.086	mg/Kg		09/28/16 14:49	09/29/16 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*60 - 154*	*09/28/16 14:49*	*09/29/16 02:22*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*09/28/16 14:49*	*09/29/16 02:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.3**		2.0	0.41	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Barium	**33.5**		0.51	0.11	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Cadmium	**0.11**	**J**	0.20	0.030	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Chromium	**6.5**		0.51	0.20	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Lead	**6.7**		1.0	0.24	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Selenium	ND		4.1	0.41	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1
Silver	ND		0.61	0.20	mg/Kg	☼	09/29/16 14:30	10/03/16 12:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0082	mg/Kg	☼	09/29/16 09:30	09/29/16 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	*	1.0	0.49	mg/Kg	☼	09/28/16 17:45	09/29/16 12:54	1

Client Sample ID: KU-B-8-S2

Date Collected: 09/26/16 11:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-9
Matrix: Solid
Percent Solids: 89.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.5	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,1,2-Trichloroethane	ND		5.5	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,1-Dichloroethane	ND		5.5	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,1-Dichloroethene	ND		5.5	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2,4-Trimethylbenzene	ND		5.5	1.0	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2-Dibromo-3-Chloropropane	ND		5.5	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2-Dichlorobenzene	ND		5.5	0.43	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2-Dichloroethane	ND		5.5	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2-Dichloropropane	ND		5.5	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,3,5-Trimethylbenzene	ND		5.5	0.35	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,3-Dichlorobenzene	ND		5.5	0.28	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,4-Dichlorobenzene	ND		5.5	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
2-Butanone (MEK)	ND		27	2.0	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
2-Hexanone	ND		27	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
4-Isopropyltoluene	ND		5.5	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
4-Methyl-2-pentanone (MIBK)	ND		27	1.8	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Acetone	**7.3**	**J B**	27	4.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1

Client Sample ID: KU-B-8-S2
Date Collected: 09/26/16 11:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-9
Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.5	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Bromoform	ND		5.5	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Bromomethane	ND		5.5	0.49	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Carbon disulfide	ND		5.5	2.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Carbon tetrachloride	ND		5.5	0.53	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Chlorobenzene	ND		5.5	0.72	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Dibromochloromethane	ND		5.5	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Chloroethane	ND		5.5	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Chloroform	ND		5.5	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Chloromethane	ND		5.5	0.33	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Cyclohexane	ND		5.5	0.77	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Bromodichloromethane	ND		5.5	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Dichlorodifluoromethane	ND		5.5	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
1,2-Dibromoethane	ND		5.5	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Isopropylbenzene	ND		5.5	0.82	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Methyl acetate	ND		27	3.3	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Methylcyclohexane	ND		5.5	0.83	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Methylene Chloride	ND		5.5	2.5	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
m,p-Xylene	ND		11	0.92	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Naphthalene	ND		5.5	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
n-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
N-Propylbenzene	ND		5.5	0.44	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
o-Xylene	ND		5.5	0.71	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
sec-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Tetrachloroethene	ND		5.5	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Toluene	ND		5.5	0.41	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
trans-1,2-Dichloroethene	ND		5.5	0.56	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Trichloroethene	ND		5.5	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Trichlorofluoromethane	ND		5.5	0.52	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Vinyl chloride	ND	*	5.5	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Xylenes, Total	ND		11	0.92	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
Styrene	ND		5.5	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1
tert-Butylbenzene	ND		5.5	0.57	ug/Kg	☼	09/28/16 21:07	09/29/16 07:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*09/28/16 21:07*	*09/29/16 07:23*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/28/16 21:07*	*09/29/16 07:23*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*09/28/16 21:07*	*09/29/16 07:23*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/28/16 21:07*	*09/29/16 07:23*	*1*

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-9-S1
Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid
Percent Solids: 95.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.84	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,1-Dichloroethane	ND		5.2	0.63	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2,4-Trimethylbenzene	ND		5.2	1.0	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,3,5-Trimethylbenzene	ND		5.2	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
4-Isopropyltoluene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Acetone	ND		26	4.4	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Benzene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Carbon tetrachloride	ND		5.2	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Chloromethane	ND		5.2	0.31	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Isopropylbenzene	ND		5.2	0.78	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Methyl acetate	ND		26	3.1	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Methylcyclohexane	ND		5.2	0.79	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
m,p-Xylene	ND		10	0.87	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Naphthalene	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
n-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
N-Propylbenzene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
o-Xylene	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
sec-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Toluene	ND		5.2	0.39	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1

Client Sample ID: KU-B-9-S1
Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid
Percent Solids: 95.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Trichloroethene	**24**		5.2	1.1	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Trichlorofluoromethane	ND		5.2	0.49	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Vinyl chloride	ND	*	5.2	0.63	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Xylenes, Total	ND		10	0.87	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
Styrene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1
tert-Butylbenzene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 07:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*09/28/16 21:07*	*09/29/16 07:49*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*09/28/16 21:07*	*09/29/16 07:49*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*09/28/16 21:07*	*09/29/16 07:49*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*09/28/16 21:07*	*09/29/16 07:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
bis (2-chloroisopropyl) ether	ND		170	35	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4,5-Trichlorophenol	ND		170	47	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4,6-Trichlorophenol	ND		170	35	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4-Dichlorophenol	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4-Dimethylphenol	ND		170	42	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4-Dinitrophenol	ND		1700	800	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,4-Dinitrotoluene	ND		170	36	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Chloronaphthalene	ND		170	29	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Chlorophenol	ND		170	32	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Methylnaphthalene	ND		170	35	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Methylphenol	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Nitroaniline	ND		340	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
2-Nitrophenol	ND		170	49	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
3,3'-Dichlorobenzidine	ND		340	200	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
3-Nitroaniline	ND		340	48	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4,6-Dinitro-2-methylphenol	ND		340	170	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Bromophenyl phenyl ether	ND		170	25	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Chloro-3-methylphenol	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Chloroaniline	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Chlorophenyl phenyl ether	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Methylphenol	ND		340	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Nitroaniline	ND		340	91	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
4-Nitrophenol	ND		340	120	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Acenaphthene	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Acenaphthylene	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Acetophenone	ND		170	24	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Anthracene	ND		170	43	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Atrazine	ND		170	60	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzaldehyde	ND		170	140	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzo[a]anthracene	ND		170	17	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1

Client Sample ID: KU-B-9-S1
Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid
Percent Solids: 95.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzo[b]fluoranthene	ND		170	28	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzo[k]fluoranthene	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Bis(2-chloroethoxy)methane	ND		170	37	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Bis(2-chloroethyl)ether	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Bis(2-ethylhexyl) phthalate	ND		170	59	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Butyl benzyl phthalate	ND		170	29	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Caprolactam	ND		170	52	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Carbazole	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Chrysene	ND		170	39	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Di-n-butyl phthalate	ND		170	30	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Di-n-octyl phthalate	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Dibenz(a,h)anthracene	ND		170	31	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Dibenzofuran	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Diethyl phthalate	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Dimethyl phthalate	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Fluoranthene	ND		170	18	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Fluorene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Hexachlorobenzene	ND		170	24	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Hexachlorobutadiene	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Hexachlorocyclopentadiene	ND		170	24	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Hexachloroethane	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Indeno[1,2,3-cd]pyrene	ND		170	22	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Isophorone	ND		170	37	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
N-Nitrosodi-n-propylamine	ND		170	30	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Naphthalene	ND		170	23	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Nitrobenzene	ND		170	19	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Pentachlorophenol	ND		340	170	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Phenanthrene	ND		170	26	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Phenol	ND		170	27	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Pyrene	ND		170	20	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1
Benzyl alcohol	ND		340	24	ug/Kg	☼	10/01/16 08:22	10/06/16 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*73*		*39 - 146*	*10/01/16 08:22*	*10/06/16 03:52*	*1*
2-Fluorobiphenyl	*69*		*37 - 120*	*10/01/16 08:22*	*10/06/16 03:52*	*1*
2-Fluorophenol	*62*		*18 - 120*	*10/01/16 08:22*	*10/06/16 03:52*	*1*
Nitrobenzene-d5	*65*		*34 - 132*	*10/01/16 08:22*	*10/06/16 03:52*	*1*
p-Terphenyl-d14	*84*		*65 - 153*	*10/01/16 08:22*	*10/06/16 03:52*	*1*
Phenol-d5	*66*		*11 - 120*	*10/01/16 08:22*	*10/06/16 03:52*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.33	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
4,4'-DDE	ND		1.7	0.36	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
4,4'-DDT	ND		1.7	0.40	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Aldrin	ND		1.7	0.42	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
alpha-BHC	**0.42**	**J B**	1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1

Client Sample ID: KU-B-9-S1
Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid
Percent Solids: 95.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	ND		1.7	0.85	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
beta-BHC	ND		1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
delta-BHC	ND		1.7	0.32	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Dieldrin	ND		1.7	0.41	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endosulfan I	ND		1.7	0.33	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endosulfan II	ND		1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endosulfan sulfate	ND		1.7	0.32	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endrin	ND		1.7	0.34	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endrin aldehyde	ND		1.7	0.44	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Endrin ketone	ND		1.7	0.42	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
gamma-Chlordane	ND		1.7	0.55	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Heptachlor	ND		1.7	0.37	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Heptachlor epoxide	ND		1.7	0.44	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Methoxychlor	ND		1.7	0.35	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1
Toxaphene	ND		17	10	ug/Kg	☼	09/29/16 06:06	10/03/16 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*45 - 120*	*09/29/16 06:06*	*10/03/16 16:02*	*1*
Tetrachloro-m-xylene	*55*		*30 - 124*	*09/29/16 06:06*	*10/03/16 16:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.20	0.040	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1221	ND		0.20	0.040	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1232	ND		0.20	0.040	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1242	ND		0.20	0.040	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1248	ND		0.20	0.040	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1254	ND		0.20	0.096	mg/Kg		09/28/16 14:49	09/29/16 02:38	1
PCB-1260	ND		0.20	0.096	mg/Kg		09/28/16 14:49	09/29/16 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*109*		*60 - 154*	*09/28/16 14:49*	*09/29/16 02:38*	*1*
DCB Decachlorobiphenyl	*129*		*65 - 174*	*09/28/16 14:49*	*09/29/16 02:38*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**8.8**		2.2	0.45	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Barium	**60.2**		0.56	0.12	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Cadmium	**0.18**	**J**	0.22	0.033	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Chromium	**7.9**		0.56	0.22	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Lead	**7.4**		1.1	0.27	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Selenium	ND		4.5	0.45	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1
Silver	ND		0.67	0.22	mg/Kg	☼	09/29/16 14:30	10/03/16 12:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021	0.0084	mg/Kg	☼	09/29/16 09:30	09/29/16 13:05	1

Client Sample ID: KU-B-9-S1

Lab Sample ID: 480-106629-10
Date Collected: 09/27/16 09:45
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 95.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	*	1.0	0.49	mg/Kg	☼	09/28/16 17:45	09/29/16 12:58	1

Client Sample ID: KU-B-9-S2

Lab Sample ID: 480-106629-11
Date Collected: 09/27/16 09:40
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 90.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,1,2,2-Tetrachloroethane	ND	F1	5.2	0.85	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2,4-Trimethylbenzene	ND		5.2	1.0	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,3,5-Trimethylbenzene	ND		5.2	0.34	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
2-Butanone (MEK)	ND	F1	26	1.9	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
4-Isopropyltoluene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Acetone	**5.1**	**J B**	26	4.4	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Benzene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Chloroethane	ND	F1	5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Chloromethane	ND		5.2	0.32	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
1,2-Dibromoethane	ND	F1	5.2	0.67	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Methylcyclohexane	ND		5.2	0.80	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
m,p-Xylene	ND		10	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1

Client Sample ID: KU-B-9-S2
Date Collected: 09/27/16 09:40
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-11
Matrix: Solid
Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
n-Butylbenzene	ND		5.2	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
N-Propylbenzene	ND		5.2	0.42	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
o-Xylene	ND		5.2	0.68	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
sec-Butylbenzene	ND		5.2	0.46	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Toluene	ND		5.2	0.40	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Trichloroethene	**27**	**F1**	5.2	1.2	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Trichlorofluoromethane	ND		5.2	0.50	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Vinyl chloride	ND	*	5.2	0.64	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
Styrene	ND		5.2	0.26	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1
tert-Butylbenzene	ND		5.2	0.54	ug/Kg	☼	09/28/16 21:07	09/29/16 08:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*09/28/16 21:07*	*09/29/16 08:15*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*09/28/16 21:07*	*09/29/16 08:15*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*09/28/16 21:07*	*09/29/16 08:15*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*09/28/16 21:07*	*09/29/16 08:15*	*1*

Surrogate Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(71-125)	(60-140)
480-106629-4	KU-B-4-S1	98	98	99	105
480-106629-5	KU-B-4-S2	99	99	101	105
480-106629-6	KU-B-7-S1	101	90	106	107
480-106629-7	KU-B-7-S2	98	98	101	107
480-106629-8	KU-B-8-S1	102	99	99	107
480-106629-9	KU-B-8-S2	101	99	101	107
480-106629-10	KU-B-9-S1	100	95	102	107
480-106629-11	KU-B-9-S2	102	99	101	108
480-106629-11 MS	KU-B-9-S2	84	98	104	103
480-106629-11 MSD	KU-B-9-S2	87	99	102	103
LCS 480-322934/1-A	Lab Control Sample	99	101	102	106
MB 480-322934/2-A	Method Blank	99	101	102	106

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(65-153)	(11-120)
480-106629-1	KU-SS-1	0 X	61	69	64	65	56
480-106629-2	KU-SS-2	60	75	64	72	68	64
480-106629-3	KU-SS-3	55	68	68	72	68	69
480-106629-5	KU-B-4-S2	66	59	59	58	75	62
480-106629-6	KU-B-7-S1	59	64	66	62	75	65
480-106629-8	KU-B-8-S1	74	70	62	66	85	64
480-106629-10	KU-B-9-S1	73	69	62	65	84	66
LCS 480-323357/2-A	Lab Control Sample	86	74	70	71	86	70
MB 480-323357/1-A	Method Blank	82	79	73	69	97	75

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(45-120)	(30-124)
480-106629-1	KU-SS-1	0 X	0 X

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(45-120)	(30-124)
480-106629-2	KU-SS-2	114	93
480-106629-3	KU-SS-3	60	72
480-106629-6	KU-B-7-S1	0 X	0 X
480-106629-8	KU-B-8-S1	45	57
480-106629-10	KU-B-9-S1	50	55
LCS 480-322946/2-A	Lab Control Sample	52	62
MB 480-322946/1-A	Method Blank	54	59

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(65-174)
480-106629-1	KU-SS-1	96	100
480-106629-1 MS	KU-SS-1	69	72
480-106629-1 MSD	KU-SS-1	112	122
480-106629-2	KU-SS-2	91	85
480-106629-3	KU-SS-3	101	103
480-106629-6	KU-B-7-S1	103	114
480-106629-8	KU-B-8-S1	93	110
480-106629-10	KU-B-9-S1	109	129
LCS 480-322875/2-A	Lab Control Sample	112	134
MB 480-322875/1-A	Method Blank	122	139

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-322934/2-A
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2,4-Trimethylbenzene	ND		5.0	0.95	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
2-Hexanone	ND		25	2.5	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Acetone	29.0		25	4.2	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Benzene	ND		5.0	0.24	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Bromoform	ND		5.0	2.5	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Bromomethane	ND		5.0	0.45	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Chloroethane	ND		5.0	1.1	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Chloroform	ND		5.0	0.31	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Chloromethane	ND		5.0	0.30	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Cyclohexane	ND		5.0	0.70	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Ethylbenzene	ND		5.0	0.34	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Methyl acetate	ND		25	3.0	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
m,p-Xylene	ND		9.9	0.83	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Naphthalene	ND		5.0	0.67	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
n-Butylbenzene	ND		5.0	0.43	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
o-Xylene	ND		5.0	0.65	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
sec-Butylbenzene	ND		5.0	0.43	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		09/28/16 21:07	09/28/16 23:49	1

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

Lab Sample ID: MB 480-322934/2-A
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.0	0.38	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
trans-1,2-Dichloroethene	ND		5.0	0.51	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Trichloroethene	ND		5.0	1.1	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Xylenes, Total	ND		9.9	0.83	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
Styrene	ND		5.0	0.25	ug/Kg		09/28/16 21:07	09/28/16 23:49	1
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		09/28/16 21:07	09/28/16 23:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*09/28/16 21:07*	*09/28/16 23:49*	*1*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*	*09/28/16 21:07*	*09/28/16 23:49*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*09/28/16 21:07*	*09/28/16 23:49*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*09/28/16 21:07*	*09/28/16 23:49*	*1*

Lab Sample ID: LCS 480-322934/1-A
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	49.9	54.6		ug/Kg		109	77 - 121
1,1,2,2-Tetrachloroethane	49.9	48.1		ug/Kg		96	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	49.9	53.5		ug/Kg		107	60 - 140
1,1,2-Trichloroethane	49.9	49.5		ug/Kg		99	78 - 122
1,1-Dichloroethane	49.9	48.8		ug/Kg		98	73 - 126
1,1-Dichloroethene	49.9	51.3		ug/Kg		103	59 - 125
1,2,4-Trichlorobenzene	49.9	53.9		ug/Kg		108	64 - 120
1,2,4-Trimethylbenzene	49.9	50.9		ug/Kg		102	74 - 120
1,2-Dibromo-3-Chloropropane	49.9	54.2		ug/Kg		109	63 - 124
1,2-Dichlorobenzene	49.9	50.9		ug/Kg		102	75 - 120
1,2-Dichloroethane	49.9	47.9		ug/Kg		96	77 - 122
1,2-Dichloropropane	49.9	49.2		ug/Kg		99	75 - 124
1,3,5-Trimethylbenzene	49.9	51.3		ug/Kg		103	74 - 120
1,3-Dichlorobenzene	49.9	49.6		ug/Kg		99	74 - 120
1,4-Dichlorobenzene	49.9	49.4		ug/Kg		99	73 - 120
2-Butanone (MEK)	250	256		ug/Kg		102	70 - 134
2-Hexanone	250	253		ug/Kg		101	59 - 130
4-Isopropyltoluene	49.9	52.9		ug/Kg		106	74 - 120
4-Methyl-2-pentanone (MIBK)	250	250		ug/Kg		100	65 - 133
Acetone	250	310		ug/Kg		124	61 - 137
Benzene	49.9	51.1		ug/Kg		102	79 - 127
Bromoform	49.9	53.5		ug/Kg		107	68 - 126
Bromomethane	49.9	64.4		ug/Kg		129	37 - 149
Carbon disulfide	49.9	49.1		ug/Kg		98	64 - 131
Carbon tetrachloride	49.9	59.9		ug/Kg		120	75 - 135

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

Lab Sample ID: LCS 480-322934/1-A
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	49.9	52.1		ug/Kg		104	76 - 124
Dibromochloromethane	49.9	61.1		ug/Kg		122	76 - 125
Chloroethane	49.9	66.5		ug/Kg		133	69 - 135
Chloroform	49.9	50.8		ug/Kg		102	80 - 118
Chloromethane	49.9	61.2		ug/Kg		123	63 - 127
cis-1,2-Dichloroethene	49.9	51.2		ug/Kg		103	81 - 117
Cyclohexane	49.9	48.8		ug/Kg		98	65 - 106
Bromodichloromethane	49.9	54.5		ug/Kg		109	80 - 122
Dichlorodifluoromethane	49.9	58.5		ug/Kg		117	57 - 142
Ethylbenzene	49.9	52.4		ug/Kg		105	80 - 120
1,2-Dibromoethane	49.9	50.2		ug/Kg		101	78 - 120
Isopropylbenzene	49.9	50.3		ug/Kg		101	72 - 120
Methyl acetate	250	239		ug/Kg		96	55 - 136
Methyl tert-butyl ether	49.9	52.3		ug/Kg		105	63 - 125
Methylcyclohexane	49.9	52.1		ug/Kg		104	60 - 140
Methylene Chloride	49.9	51.0		ug/Kg		102	61 - 127
m,p-Xylene	49.9	51.5		ug/Kg		103	70 - 130
Naphthalene	49.9	55.3		ug/Kg		111	38 - 137
n-Butylbenzene	49.9	51.9		ug/Kg		104	70 - 120
N-Propylbenzene	49.9	50.6		ug/Kg		101	70 - 130
o-Xylene	49.9	51.9		ug/Kg		104	70 - 130
sec-Butylbenzene	49.9	51.4		ug/Kg		103	74 - 120
Tetrachloroethene	49.9	51.1		ug/Kg		102	74 - 122
Toluene	49.9	49.9		ug/Kg		100	74 - 128
trans-1,2-Dichloroethene	49.9	51.5		ug/Kg		103	78 - 126
trans-1,3-Dichloropropene	49.9	51.6		ug/Kg		103	73 - 123
Trichloroethene	49.9	51.2		ug/Kg		103	77 - 129
Trichlorofluoromethane	49.9	63.1		ug/Kg		126	65 - 146
Vinyl chloride	49.9	68.6	*	ug/Kg		137	61 - 133
cis-1,3-Dichloropropene	49.9	51.5		ug/Kg		103	82 - 120
Styrene	49.9	50.6		ug/Kg		102	80 - 120
tert-Butylbenzene	49.9	48.7		ug/Kg		98	73 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*
Toluene-d8 (Surr)	*102*		*71 - 125*
Dibromofluoromethane (Surr)	*106*		*60 - 140*

Lab Sample ID: 480-106629-11 MS
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: KU-B-9-S2
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		55.1	57.8		ug/Kg	☼	105	77 - 121
1,1,2,2-Tetrachloroethane	ND	F1	55.1	38.5	F1	ug/Kg	☼	70	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		55.1	59.5		ug/Kg	☼	108	60 - 140

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

Lab Sample ID: 480-106629-11 MS | **Client Sample ID: KU-B-9-S2**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 322933 | **Prep Batch: 322934**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	ND		55.1	44.5		ug/Kg	☼	81	78 - 122
1,1-Dichloroethane	ND		55.1	52.9		ug/Kg	☼	96	73 - 126
1,1-Dichloroethene	ND		55.1	55.4		ug/Kg	☼	101	59 - 125
1,2,4-Trichlorobenzene	ND		55.1	42.7		ug/Kg	☼	78	64 - 120
1,2,4-Trimethylbenzene	ND		55.1	51.1		ug/Kg	☼	93	74 - 120
1,2-Dibromo-3-Chloropropane	ND		55.1	35.1		ug/Kg	☼	64	63 - 124
1,2-Dichlorobenzene	ND		55.1	48.6		ug/Kg	☼	88	75 - 120
1,2-Dichloroethane	ND		55.1	44.8		ug/Kg	☼	81	77 - 122
1,2-Dichloropropane	ND		55.1	50.2		ug/Kg	☼	91	75 - 124
1,3,5-Trimethylbenzene	ND		55.1	51.7		ug/Kg	☼	94	74 - 120
1,3-Dichlorobenzene	ND		55.1	47.2		ug/Kg	☼	86	74 - 120
1,4-Dichlorobenzene	ND		55.1	46.1		ug/Kg	☼	84	73 - 120
2-Butanone (MEK)	ND	F1	275	169	F1	ug/Kg	☼	61	70 - 134
2-Hexanone	ND		275	173		ug/Kg	☼	63	59 - 130
4-Isopropyltoluene	ND		55.1	51.8		ug/Kg	☼	94	74 - 120
4-Methyl-2-pentanone (MIBK)	ND		275	181		ug/Kg	☼	66	65 - 133
Acetone	5.1	J B	275	195		ug/Kg	☼	69	61 - 137
Benzene	ND		55.1	53.3		ug/Kg	☼	97	79 - 127
Bromoform	ND		55.1	43.5		ug/Kg	☼	79	68 - 126
Bromomethane	ND		55.1	74.6		ug/Kg	☼	135	37 - 149
Carbon disulfide	ND		55.1	52.9		ug/Kg	☼	96	64 - 131
Carbon tetrachloride	ND		55.1	62.5		ug/Kg	☼	113	75 - 135
Chlorobenzene	ND		55.1	52.2		ug/Kg	☼	95	76 - 124
Dibromochloromethane	ND		55.1	54.8		ug/Kg	☼	99	76 - 125
Chloroethane	ND	F1	55.1	76.6	F1	ug/Kg	☼	139	69 - 135
Chloroform	ND		55.1	53.4		ug/Kg	☼	97	80 - 118
Chloromethane	ND		55.1	66.8		ug/Kg	☼	121	63 - 127
cis-1,2-Dichloroethene	ND		55.1	53.8		ug/Kg	☼	98	81 - 117
Cyclohexane	ND		55.1	49.9		ug/Kg	☼	91	65 - 106
Bromodichloromethane	ND		55.1	54.6		ug/Kg	☼	99	80 - 122
Dichlorodifluoromethane	ND		55.1	62.9		ug/Kg	☼	114	57 - 142
Ethylbenzene	ND		55.1	53.7		ug/Kg	☼	97	80 - 120
1,2-Dibromoethane	ND	F1	55.1	42.1	F1	ug/Kg	☼	76	78 - 120
Isopropylbenzene	ND		55.1	51.3		ug/Kg	☼	93	72 - 120
Methyl acetate	ND		275	173		ug/Kg	☼	63	55 - 136
Methyl tert-butyl ether	ND		55.1	46.0		ug/Kg	☼	83	63 - 125
Methylcyclohexane	ND		55.1	52.2		ug/Kg	☼	95	60 - 140
Methylene Chloride	ND		55.1	56.9		ug/Kg	☼	103	61 - 127
m,p-Xylene	ND		55.1	52.2		ug/Kg	☼	95	70 - 130
Naphthalene	ND		55.1	40.4		ug/Kg	☼	73	38 - 137
n-Butylbenzene	ND		55.1	47.6		ug/Kg	☼	86	70 - 120
N-Propylbenzene	ND		55.1	50.3		ug/Kg	☼	91	70 - 130
o-Xylene	ND		55.1	53.4		ug/Kg	☼	97	70 - 130
sec-Butylbenzene	ND		55.1	51.6		ug/Kg	☼	94	74 - 120
Tetrachloroethene	ND		55.1	51.1		ug/Kg	☼	93	74 - 122
Toluene	ND		55.1	52.1		ug/Kg	☼	95	74 - 128
trans-1,2-Dichloroethene	ND		55.1	54.5		ug/Kg	☼	99	78 - 126
trans-1,3-Dichloropropene	ND		55.1	44.7		ug/Kg	☼	81	73 - 123

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

Lab Sample ID: 480-106629-11 MS
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: KU-B-9-S2
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	27	F1	55.1	104	F1	ug/Kg	☼	138	77 - 129
Trichlorofluoromethane	ND		55.1	68.6		ug/Kg	☼	125	65 - 146
Vinyl chloride	ND	*	55.1	70.8		ug/Kg	☼	129	61 - 133
cis-1,3-Dichloropropene	ND		55.1	47.3		ug/Kg	☼	86	82 - 120
Styrene	ND		55.1	50.2		ug/Kg	☼	91	80 - 120
tert-Butylbenzene	ND		55.1	50.7		ug/Kg	☼	92	73 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*64 - 126*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*
Toluene-d8 (Surr)	*104*		*71 - 125*
Dibromofluoromethane (Surr)	*103*		*60 - 140*

Lab Sample ID: 480-106629-11 MSD
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: KU-B-9-S2
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		50.5	48.7		ug/Kg	☼	97	77 - 121	17	30
1,1,2,2-Tetrachloroethane	ND	F1	50.5	34.7	F1	ug/Kg	☼	69	80 - 120	11	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.5	48.7		ug/Kg	☼	96	60 - 140	20	30
1,1,2-Trichloroethane	ND		50.5	40.4		ug/Kg	☼	80	78 - 122	10	30
1,1-Dichloroethane	ND		50.5	45.4		ug/Kg	☼	90	73 - 126	15	30
1,1-Dichloroethene	ND		50.5	46.2		ug/Kg	☼	92	59 - 125	18	30
1,2,4-Trichlorobenzene	ND		50.5	38.5		ug/Kg	☼	76	64 - 120	10	30
1,2,4-Trimethylbenzene	ND		50.5	44.4		ug/Kg	☼	88	74 - 120	14	30
1,2-Dibromo-3-Chloropropane	ND		50.5	36.0		ug/Kg	☼	71	63 - 124	3	30
1,2-Dichlorobenzene	ND		50.5	42.1		ug/Kg	☼	83	75 - 120	14	30
1,2-Dichloroethane	ND		50.5	40.7		ug/Kg	☼	81	77 - 122	10	30
1,2-Dichloropropane	ND		50.5	44.7		ug/Kg	☼	89	75 - 124	12	30
1,3,5-Trimethylbenzene	ND		50.5	44.3		ug/Kg	☼	88	74 - 120	15	30
1,3-Dichlorobenzene	ND		50.5	40.9		ug/Kg	☼	81	74 - 120	14	30
1,4-Dichlorobenzene	ND		50.5	40.3		ug/Kg	☼	80	73 - 120	14	30
2-Butanone (MEK)	ND	F1	252	168	F1	ug/Kg	☼	67	70 - 134	0	30
2-Hexanone	ND		252	170		ug/Kg	☼	67	59 - 130	2	30
4-Isopropyltoluene	ND		50.5	43.7		ug/Kg	☼	87	74 - 120	17	30
4-Methyl-2-pentanone (MIBK)	ND		252	175		ug/Kg	☼	69	65 - 133	3	30
Acetone	5.1	J B	252	195		ug/Kg	☼	75	61 - 137	0	30
Benzene	ND		50.5	46.3		ug/Kg	☼	92	79 - 127	14	30
Bromoform	ND		50.5	40.5		ug/Kg	☼	80	68 - 126	7	30
Bromomethane	ND		50.5	60.2		ug/Kg	☼	119	37 - 149	21	30
Carbon disulfide	ND		50.5	44.4		ug/Kg	☼	88	64 - 131	18	30
Carbon tetrachloride	ND		50.5	52.4		ug/Kg	☼	104	75 - 135	18	30
Chlorobenzene	ND		50.5	45.3		ug/Kg	☼	90	76 - 124	14	30
Dibromochloromethane	ND		50.5	50.7		ug/Kg	☼	100	76 - 125	8	30
Chloroethane	ND	F1	50.5	61.8		ug/Kg	☼	122	69 - 135	21	30
Chloroform	ND		50.5	46.7		ug/Kg	☼	93	80 - 118	13	30

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

Lab Sample ID: 480-106629-11 MSD
Matrix: Solid
Analysis Batch: 322933

Client Sample ID: KU-B-9-S2
Prep Type: Total/NA
Prep Batch: 322934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	ND		50.5	55.1		ug/Kg	☼	109	63 - 127	19	30
cis-1,2-Dichloroethene	ND		50.5	46.7		ug/Kg	☼	93	81 - 117	14	30
Cyclohexane	ND		50.5	41.9		ug/Kg	☼	83	65 - 106	17	30
Bromodichloromethane	ND		50.5	48.7		ug/Kg	☼	96	80 - 122	11	30
Dichlorodifluoromethane	ND		50.5	50.0		ug/Kg	☼	99	57 - 142	23	30
Ethylbenzene	ND		50.5	46.0		ug/Kg	☼	91	80 - 120	15	30
1,2-Dibromoethane	ND	F1	50.5	38.6	F1	ug/Kg	☼	76	78 - 120	9	30
Isopropylbenzene	ND		50.5	43.7		ug/Kg	☼	87	72 - 120	16	30
Methyl acetate	ND		252	163		ug/Kg	☼	65	55 - 136	6	30
Methyl tert-butyl ether	ND		50.5	43.3		ug/Kg	☼	86	63 - 125	6	30
Methylcyclohexane	ND		50.5	44.3		ug/Kg	☼	88	60 - 140	16	30
Methylene Chloride	ND		50.5	49.6		ug/Kg	☼	98	61 - 127	14	30
m,p-Xylene	ND		50.5	44.4		ug/Kg	☼	88	70 - 130	16	30
Naphthalene	ND		50.5	38.2		ug/Kg	☼	76	38 - 137	6	30
n-Butylbenzene	ND		50.5	40.6		ug/Kg	☼	80	70 - 120	16	30
N-Propylbenzene	ND		50.5	42.5		ug/Kg	☼	84	70 - 130	17	30
o-Xylene	ND		50.5	45.8		ug/Kg	☼	91	70 - 130	15	30
sec-Butylbenzene	ND		50.5	43.6		ug/Kg	☼	86	74 - 120	17	30
Tetrachloroethene	ND		50.5	42.7		ug/Kg	☼	85	74 - 122	18	30
Toluene	ND		50.5	44.9		ug/Kg	☼	89	74 - 128	15	30
trans-1,2-Dichloroethene	ND		50.5	46.3		ug/Kg	☼	92	78 - 126	16	30
trans-1,3-Dichloropropene	ND		50.5	40.7		ug/Kg	☼	81	73 - 123	9	30
Trichloroethene	27	F1	50.5	91.2		ug/Kg	☼	126	77 - 129	13	30
Trichlorofluoromethane	ND		50.5	56.0		ug/Kg	☼	111	65 - 146	20	30
Vinyl chloride	ND	*	50.5	57.1		ug/Kg	☼	113	61 - 133	21	30
cis-1,3-Dichloropropene	ND		50.5	42.7		ug/Kg	☼	85	82 - 120	10	30
Styrene	ND		50.5	43.7		ug/Kg	☼	87	80 - 120	14	30
tert-Butylbenzene	ND		50.5	43.0		ug/Kg	☼	85	73 - 120	16	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 126*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*
Toluene-d8 (Surr)	*102*		*71 - 125*
Dibromofluoromethane (Surr)	*103*		*60 - 140*

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

Lab Sample ID: MB 480-323357/1-A
Matrix: Solid
Analysis Batch: 323936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323357

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		10/01/16 08:22	10/05/16 21:08	1

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

Lab Sample ID: MB 480-323357/1-A
Matrix: Solid
Analysis Batch: 323936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323357

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		1600	770	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Chloronaphthalene	ND		170	28	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Chlorophenol	ND		170	31	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Methylnaphthalene	ND		170	34	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Methylphenol	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Nitroaniline	ND		330	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
2-Nitrophenol	ND		170	47	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
3-Nitroaniline	ND		330	46	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Chloroaniline	ND		170	41	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Methylphenol	ND		330	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Nitroaniline	ND		330	88	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
4-Nitrophenol	ND		330	120	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Acenaphthene	ND		170	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Acenaphthylene	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Acetophenone	ND		170	23	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Anthracene	ND		170	41	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Atrazine	ND		170	58	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzaldehyde	ND		170	130	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzo[a]anthracene	ND		170	17	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzo[a]pyrene	ND		170	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Caprolactam	ND		170	50	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Carbazole	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Chrysene	ND		170	37	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Dibenzofuran	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Diethyl phthalate	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Dimethyl phthalate	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Fluoranthene	ND		170	18	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Fluorene	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Hexachlorobenzene	ND		170	23	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Hexachlorobutadiene	ND		170	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		10/01/16 08:22	10/05/16 21:08	1

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

Lab Sample ID: MB 480-323357/1-A
Matrix: Solid
Analysis Batch: 323936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323357

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Isophorone	ND		170	35	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Naphthalene	ND		170	22	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Nitrobenzene	ND		170	19	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Pentachlorophenol	ND		330	170	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Phenanthrene	ND		170	25	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Phenol	ND		170	26	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Pyrene	ND		170	20	ug/Kg		10/01/16 08:22	10/05/16 21:08	1
Benzyl alcohol	ND		330	23	ug/Kg		10/01/16 08:22	10/05/16 21:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*39 - 146*	*10/01/16 08:22*	*10/05/16 21:08*	*1*
2-Fluorobiphenyl	*79*		*37 - 120*	*10/01/16 08:22*	*10/05/16 21:08*	*1*
2-Fluorophenol	*73*		*18 - 120*	*10/01/16 08:22*	*10/05/16 21:08*	*1*
Nitrobenzene-d5	*69*		*34 - 132*	*10/01/16 08:22*	*10/05/16 21:08*	*1*
p-Terphenyl-d14	*97*		*65 - 153*	*10/01/16 08:22*	*10/05/16 21:08*	*1*
Phenol-d5	*75*		*11 - 120*	*10/01/16 08:22*	*10/05/16 21:08*	*1*

Lab Sample ID: LCS 480-323357/2-A
Matrix: Solid
Analysis Batch: 324397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1620	1210		ug/Kg		75	71 - 120
bis (2-chloroisopropyl) ether	1620	1140		ug/Kg		71	44 - 120
2,4,5-Trichlorophenol	1620	1240		ug/Kg		77	59 - 126
2,4,6-Trichlorophenol	1620	1250		ug/Kg		77	59 - 123
2,4-Dichlorophenol	1620	1230		ug/Kg		76	52 - 120
2,4-Dimethylphenol	1620	1220		ug/Kg		75	36 - 120
2,4-Dinitrophenol	3230	2490		ug/Kg		77	35 - 146
2,4-Dinitrotoluene	1620	1340		ug/Kg		83	55 - 125
2,6-Dinitrotoluene	1620	1300		ug/Kg		81	66 - 128
2-Chloronaphthalene	1620	1200		ug/Kg		74	57 - 120
2-Chlorophenol	1620	1160		ug/Kg		72	38 - 120
2-Methylnaphthalene	1620	1140		ug/Kg		71	47 - 120
2-Methylphenol	1620	1210		ug/Kg		75	48 - 120
2-Nitroaniline	1620	1250		ug/Kg		77	61 - 130
2-Nitrophenol	1620	1140		ug/Kg		71	50 - 120
3,3'-Dichlorobenzidine	3230	2400		ug/Kg		74	48 - 126
3-Nitroaniline	1620	1080		ug/Kg		67	61 - 127
4,6-Dinitro-2-methylphenol	3230	2760		ug/Kg		85	49 - 155
4-Bromophenyl phenyl ether	1620	1490		ug/Kg		92	58 - 131
4-Chloro-3-methylphenol	1620	1290		ug/Kg		80	49 - 125
4-Chloroaniline	1620	1050		ug/Kg		65	49 - 120
4-Chlorophenyl phenyl ether	1620	1390		ug/Kg		86	63 - 124

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

Lab Sample ID: LCS 480-323357/2-A
Matrix: Solid
Analysis Batch: 324397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methylphenol	1620	1200		ug/Kg		75	50 - 119
4-Nitroaniline	1620	1170		ug/Kg		73	63 - 128
4-Nitrophenol	3230	2570		ug/Kg		80	43 - 137
Acenaphthene	1620	1270		ug/Kg		78	53 - 120
Acenaphthylene	1620	1100		ug/Kg		68	58 - 121
Acetophenone	1620	1200		ug/Kg		74	66 - 120
Anthracene	1620	1330		ug/Kg		82	62 - 129
Atrazine	3230	2910		ug/Kg		90	60 - 164
Benzaldehyde	3230	1350		ug/Kg		42	21 - 120
Benzo[a]anthracene	1620	1310		ug/Kg		81	65 - 133
Benzo[a]pyrene	1620	1430		ug/Kg		89	64 - 127
Benzo[b]fluoranthene	1620	1420		ug/Kg		88	64 - 135
Benzo[g,h,i]perylene	1620	1150		ug/Kg		71	50 - 152
Benzo[k]fluoranthene	1620	1550		ug/Kg		96	58 - 138
Bis(2-chloroethoxy)methane	1620	1190		ug/Kg		74	61 - 133
Bis(2-chloroethyl)ether	1620	1180		ug/Kg		73	45 - 120
Bis(2-ethylhexyl) phthalate	1620	1180		ug/Kg		73	61 - 133
Butyl benzyl phthalate	1620	1280		ug/Kg		79	61 - 129
Caprolactam	3230	2570		ug/Kg		79	54 - 133
Carbazole	1620	1280		ug/Kg		79	59 - 129
Chrysene	1620	1330		ug/Kg		82	64 - 131
Di-n-butyl phthalate	1620	1290		ug/Kg		80	58 - 130
Di-n-octyl phthalate	1620	1130		ug/Kg		70	62 - 133
Dibenz(a,h)anthracene	1620	1220		ug/Kg		75	54 - 148
Dibenzofuran	1620	1250		ug/Kg		77	56 - 120
Diethyl phthalate	1620	1270		ug/Kg		79	66 - 126
Dimethyl phthalate	1620	1330		ug/Kg		82	65 - 124
Fluoranthene	1620	1430		ug/Kg		89	62 - 131
Fluorene	1620	1270		ug/Kg		79	63 - 126
Hexachlorobenzene	1620	1390		ug/Kg		86	60 - 132
Hexachlorobutadiene	1620	1250		ug/Kg		77	45 - 120
Hexachlorocyclopentadiene	1620	1230		ug/Kg		76	31 - 120
Hexachloroethane	1620	1110		ug/Kg		69	41 - 120
Indeno[1,2,3-cd]pyrene	1620	1220		ug/Kg		76	56 - 149
Isophorone	1620	1230		ug/Kg		76	56 - 120
N-Nitrosodi-n-propylamine	1620	1240		ug/Kg		77	46 - 120
N-Nitrosodiphenylamine	1620	1310		ug/Kg		81	20 - 119
Naphthalene	1620	1110		ug/Kg		69	46 - 120
Nitrobenzene	1620	1180		ug/Kg		73	49 - 120
Pentachlorophenol	3230	3070		ug/Kg		95	33 - 136
Phenanthrene	1620	1320		ug/Kg		82	60 - 130
Phenol	1620	1150		ug/Kg		71	36 - 120
Pyrene	1620	1440		ug/Kg		89	51 - 133
Benzyl alcohol	1620	1240		ug/Kg		77	15 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*86*		*39 - 146*
2-Fluorobiphenyl	*74*		*37 - 120*

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

Lab Sample ID: LCS 480-323357/2-A
Matrix: Solid
Analysis Batch: 324397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323357

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	70		18 - 120
Nitrobenzene-d5	71		34 - 132
p-Terphenyl-d14	86		65 - 153
Phenol-d5	70		11 - 120

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-322946/1-A
Matrix: Solid
Analysis Batch: 323482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Aldrin	ND		1.7	0.41	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
alpha-BHC	0.401	J	1.7	0.30	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
alpha-Chlordane	ND		1.7	0.83	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
beta-BHC	ND		1.7	0.30	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
delta-BHC	ND		1.7	0.31	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Dieldrin	ND		1.7	0.40	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endosulfan I	ND		1.7	0.32	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endosulfan II	ND		1.7	0.30	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endrin	ND		1.7	0.33	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Endrin ketone	ND		1.7	0.41	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
gamma-Chlordane	ND		1.7	0.53	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Heptachlor	ND		1.7	0.36	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Methoxychlor	ND		1.7	0.34	ug/Kg		09/29/16 06:06	10/03/16 11:48	1
Toxaphene	ND		17	9.7	ug/Kg		09/29/16 06:06	10/03/16 11:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	54		45 - 120	09/29/16 06:06	10/03/16 11:48	1
Tetrachloro-m-xylene	59		30 - 124	09/29/16 06:06	10/03/16 11:48	1

Lab Sample ID: LCS 480-322946/2-A
Matrix: Solid
Analysis Batch: 323482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	12.8		ug/Kg		77	56 - 120
4,4'-DDE	16.6	10.1		ug/Kg		61	44 - 120
4,4'-DDT	16.6	13.6		ug/Kg		82	38 - 120
Aldrin	16.6	9.62		ug/Kg		58	38 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-322946/2-A
Matrix: Solid
Analysis Batch: 323482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	16.6	8.92		ug/Kg		54	39 - 120
alpha-Chlordane	16.6	11.5		ug/Kg		69	47 - 120
beta-BHC	16.6	9.21		ug/Kg		56	40 - 120
delta-BHC	16.6	10.2		ug/Kg		62	45 - 120
Dieldrin	16.6	13.7		ug/Kg		83	58 - 120
Endosulfan I	16.6	11.1		ug/Kg		67	49 - 120
Endosulfan II	16.6	11.4		ug/Kg		69	55 - 120
Endosulfan sulfate	16.6	12.8		ug/Kg		77	49 - 124
Endrin	16.6	14.7		ug/Kg		89	58 - 120
Endrin aldehyde	16.6	12.1		ug/Kg		73	37 - 121
Endrin ketone	16.6	13.6		ug/Kg		82	46 - 123
gamma-BHC (Lindane)	16.6	9.71		ug/Kg		59	50 - 120
gamma-Chlordane	16.6	10.9		ug/Kg		65	48 - 120
Heptachlor	16.6	11.8		ug/Kg		71	50 - 120
Heptachlor epoxide	16.6	10.4		ug/Kg		63	50 - 120
Methoxychlor	16.6	14.5		ug/Kg		87	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*52*		*45 - 120*
Tetrachloro-m-xylene	*62*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-322875/1-A
Matrix: Solid
Analysis Batch: 322908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.20	0.038	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1221	ND		0.20	0.038	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1232	ND		0.20	0.038	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1242	ND		0.20	0.038	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1248	ND		0.20	0.038	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1254	ND		0.20	0.091	mg/Kg		09/28/16 14:49	09/28/16 23:42	1
PCB-1260	ND		0.20	0.091	mg/Kg		09/28/16 14:49	09/28/16 23:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*122*		*60 - 154*	*09/28/16 14:49*	*09/28/16 23:42*	*1*
DCB Decachlorobiphenyl	*139*		*65 - 174*	*09/28/16 14:49*	*09/28/16 23:42*	*1*

Lab Sample ID: LCS 480-322875/2-A
Matrix: Solid
Analysis Batch: 322908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2.10	2.56		mg/Kg		122	51 - 185
PCB-1260	2.10	2.53		mg/Kg		121	61 - 184

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-322875/2-A
Matrix: Solid
Analysis Batch: 322908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322875

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*112*		*60 - 154*
DCB Decachlorobiphenyl	*134*		*65 - 174*

Lab Sample ID: 480-106629-1 MS
Matrix: Solid
Analysis Batch: 322908

Client Sample ID: KU-SS-1
Prep Type: Total/NA
Prep Batch: 322875

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		2.08	2.41		mg/Kg		116	50 - 177
PCB-1260	ND		2.08	2.52		mg/Kg		121	33 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*69*		*60 - 154*
DCB Decachlorobiphenyl	*72*		*65 - 174*

Lab Sample ID: 480-106629-1 MSD
Matrix: Solid
Analysis Batch: 322908

Client Sample ID: KU-SS-1
Prep Type: Total/NA
Prep Batch: 322875

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.50	2.73		mg/Kg		109	50 - 177	13	50
PCB-1260	ND		2.50	2.91		mg/Kg		116	33 - 200	14	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*112*		*60 - 154*
DCB Decachlorobiphenyl	*122*		*65 - 174*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-323052/1-A
Matrix: Solid
Analysis Batch: 323471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.39	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Barium	ND		0.49	0.11	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Cadmium	ND		0.20	0.029	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Chromium	ND		0.49	0.20	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Lead	ND		0.98	0.24	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Selenium	0.528	J	3.9	0.39	mg/Kg		09/29/16 14:30	10/01/16 22:45	1
Silver	ND		0.59	0.20	mg/Kg		09/29/16 14:30	10/01/16 22:45	1

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

Lab Sample ID: LCSSRM 480-323052/2-A
Matrix: Solid
Analysis Batch: 323471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323052

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	221	213.0		mg/Kg		96.4	71.0 - 133.5
Barium	428	413.4		mg/Kg		96.6	74.3 - 125.5
Cadmium	126	118.3		mg/Kg		93.9	73.3 - 126.2
Chromium	74.7	74.97		mg/Kg		100.4	68.5 - 131.3
Lead	76.9	84.84		mg/Kg		110.3	68.8 - 131.3
Selenium	111	105.1		mg/Kg		94.7	65.7 - 134.2
Silver	59.6	56.12		mg/Kg		94.2	66.8 - 133.1

Lab Sample ID: 480-106629-2 MS
Matrix: Solid
Analysis Batch: 323471

Client Sample ID: KU-SS-2
Prep Type: Total/NA
Prep Batch: 323052

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.4		44.4	44.41		mg/Kg	☼	93	75 - 125
Barium	31.2	F1	44.4	83.44		mg/Kg	☼	118	75 - 125
Cadmium	0.28		44.4	40.26		mg/Kg	☼	90	75 - 125
Chromium	7.5		44.4	48.03		mg/Kg	☼	91	75 - 125
Lead	52.5		44.4	90.13		mg/Kg	☼	85	75 - 125
Selenium	ND		44.4	38.75		mg/Kg	☼	87	75 - 125
Silver	ND		11.1	10.06		mg/Kg	☼	91	75 - 125

Lab Sample ID: 480-106629-2 MSD
Matrix: Solid
Analysis Batch: 323471

Client Sample ID: KU-SS-2
Prep Type: Total/NA
Prep Batch: 323052

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.4		43.0	44.30		mg/Kg	☼	95	75 - 125	0	20
Barium	31.2	F1	43.0	90.64	F1	mg/Kg	☼	138	75 - 125	8	20
Cadmium	0.28		43.0	39.15		mg/Kg	☼	90	75 - 125	3	20
Chromium	7.5		43.0	50.77		mg/Kg	☼	101	75 - 125	6	20
Lead	52.5		43.0	105.1		mg/Kg	☼	122	75 - 125	15	20
Selenium	ND		43.0	38.77		mg/Kg	☼	90	75 - 125	0	20
Silver	ND		10.8	9.88		mg/Kg	☼	92	75 - 125	2	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-322987/1-A
Matrix: Solid
Analysis Batch: 323079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0081	mg/Kg		09/29/16 09:30	09/29/16 12:47	1

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

Lab Sample ID: LCDSRM 480-322987/22-A ^5
Matrix: Solid
Analysis Batch: 323079

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 322987

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	7.10	6.29		mg/Kg		88.6	51.3 - 149.3	2	20

Lab Sample ID: LCSSRM 480-322987/2-A ^5
Matrix: Solid
Analysis Batch: 323079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322987

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	7.10	6.44		mg/Kg		90.7	51.3 - 149.3

Lab Sample ID: 480-106629-1 MS
Matrix: Solid
Analysis Batch: 323079

Client Sample ID: KU-SS-1
Prep Type: Total/NA
Prep Batch: 322987

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.016	J	0.351	0.361		mg/Kg	☼	98	80 - 120

Lab Sample ID: 480-106629-1 MSD
Matrix: Solid
Analysis Batch: 323079

Client Sample ID: KU-SS-1
Prep Type: Total/NA
Prep Batch: 322987

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.016	J	0.351	0.333		mg/Kg	☼	90	80 - 120	8	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-322917/1-A
Matrix: Solid
Analysis Batch: 323071

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.98	0.47	mg/Kg		09/28/16 17:45	09/29/16 12:41	1

Lab Sample ID: LCSSRM 480-322917/2-A ^2
Matrix: Solid
Analysis Batch: 323071

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322917

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	39.6	97.77	*	mg/Kg		246.9	33.3 - 195.2

Lab Sample ID: 480-106629-10 MS
Matrix: Solid
Analysis Batch: 323071

Client Sample ID: KU-B-9-S1
Prep Type: Total/NA
Prep Batch: 322917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND	*	9.21	9.58		mg/Kg	☼	104	85 - 115

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: MB 480-323603/1-A
Matrix: Solid
Analysis Batch: 323702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.44	mg/Kg		10/03/16 18:40	10/04/16 09:45	1

Lab Sample ID: LCSSRM 480-323603/2-A ^2
Matrix: Solid
Analysis Batch: 323702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323603

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	39.6	44.60		mg/Kg		112.6	33.3 - 195.2

GC/MS VOA

Analysis Batch: 322933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-4	KU-B-4-S1	Total/NA	Solid	8260C	322934
480-106629-5	KU-B-4-S2	Total/NA	Solid	8260C	322934
480-106629-6	KU-B-7-S1	Total/NA	Solid	8260C	322934
480-106629-7	KU-B-7-S2	Total/NA	Solid	8260C	322934
480-106629-8	KU-B-8-S1	Total/NA	Solid	8260C	322934
480-106629-9	KU-B-8-S2	Total/NA	Solid	8260C	322934
480-106629-10	KU-B-9-S1	Total/NA	Solid	8260C	322934
480-106629-11	KU-B-9-S2	Total/NA	Solid	8260C	322934
MB 480-322934/2-A	Method Blank	Total/NA	Solid	8260C	322934
LCS 480-322934/1-A	Lab Control Sample	Total/NA	Solid	8260C	322934
480-106629-11 MS	KU-B-9-S2	Total/NA	Solid	8260C	322934
480-106629-11 MSD	KU-B-9-S2	Total/NA	Solid	8260C	322934

Prep Batch: 322934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-4	KU-B-4-S1	Total/NA	Solid	5035A	
480-106629-5	KU-B-4-S2	Total/NA	Solid	5035A	
480-106629-6	KU-B-7-S1	Total/NA	Solid	5035A	
480-106629-7	KU-B-7-S2	Total/NA	Solid	5035A	
480-106629-8	KU-B-8-S1	Total/NA	Solid	5035A	
480-106629-9	KU-B-8-S2	Total/NA	Solid	5035A	
480-106629-10	KU-B-9-S1	Total/NA	Solid	5035A	
480-106629-11	KU-B-9-S2	Total/NA	Solid	5035A	
MB 480-322934/2-A	Method Blank	Total/NA	Solid	5035A	
LCS 480-322934/1-A	Lab Control Sample	Total/NA	Solid	5035A	
480-106629-11 MS	KU-B-9-S2	Total/NA	Solid	5035A	
480-106629-11 MSD	KU-B-9-S2	Total/NA	Solid	5035A	

GC/MS Semi VOA

Prep Batch: 323357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	3550C	
480-106629-2	KU-SS-2	Total/NA	Solid	3550C	
480-106629-3	KU-SS-3	Total/NA	Solid	3550C	
480-106629-5	KU-B-4-S2	Total/NA	Solid	3550C	
480-106629-6	KU-B-7-S1	Total/NA	Solid	3550C	
480-106629-8	KU-B-8-S1	Total/NA	Solid	3550C	
480-106629-10	KU-B-9-S1	Total/NA	Solid	3550C	
MB 480-323357/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-323357/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 323936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	8270D	323357
480-106629-2	KU-SS-2	Total/NA	Solid	8270D	323357
480-106629-3	KU-SS-3	Total/NA	Solid	8270D	323357
480-106629-5	KU-B-4-S2	Total/NA	Solid	8270D	323357
480-106629-6	KU-B-7-S1	Total/NA	Solid	8270D	323357
480-106629-8	KU-B-8-S1	Total/NA	Solid	8270D	323357

GC/MS Semi VOA (Continued)

Analysis Batch: 323936 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-10	KU-B-9-S1	Total/NA	Solid	8270D	323357
MB 480-323357/1-A	Method Blank	Total/NA	Solid	8270D	323357

Analysis Batch: 324397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-323357/2-A	Lab Control Sample	Total/NA	Solid	8270D	323357

GC Semi VOA

Prep Batch: 322875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	3550C	
480-106629-2	KU-SS-2	Total/NA	Solid	3550C	
480-106629-3	KU-SS-3	Total/NA	Solid	3550C	
480-106629-6	KU-B-7-S1	Total/NA	Solid	3550C	
480-106629-8	KU-B-8-S1	Total/NA	Solid	3550C	
480-106629-10	KU-B-9-S1	Total/NA	Solid	3550C	
MB 480-322875/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-322875/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-106629-1 MS	KU-SS-1	Total/NA	Solid	3550C	
480-106629-1 MSD	KU-SS-1	Total/NA	Solid	3550C	

Analysis Batch: 322908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	8082A	322875
480-106629-2	KU-SS-2	Total/NA	Solid	8082A	322875
480-106629-3	KU-SS-3	Total/NA	Solid	8082A	322875
480-106629-6	KU-B-7-S1	Total/NA	Solid	8082A	322875
480-106629-8	KU-B-8-S1	Total/NA	Solid	8082A	322875
480-106629-10	KU-B-9-S1	Total/NA	Solid	8082A	322875
MB 480-322875/1-A	Method Blank	Total/NA	Solid	8082A	322875
LCS 480-322875/2-A	Lab Control Sample	Total/NA	Solid	8082A	322875
480-106629-1 MS	KU-SS-1	Total/NA	Solid	8082A	322875
480-106629-1 MSD	KU-SS-1	Total/NA	Solid	8082A	322875

Prep Batch: 322946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	3550C	
480-106629-2	KU-SS-2	Total/NA	Solid	3550C	
480-106629-3	KU-SS-3	Total/NA	Solid	3550C	
480-106629-6	KU-B-7-S1	Total/NA	Solid	3550C	
480-106629-8	KU-B-8-S1	Total/NA	Solid	3550C	
480-106629-10	KU-B-9-S1	Total/NA	Solid	3550C	
MB 480-322946/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-322946/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 323482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	8081B	322946
480-106629-2	KU-SS-2	Total/NA	Solid	8081B	322946

GC Semi VOA (Continued)

Analysis Batch: 323482 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-3	KU-SS-3	Total/NA	Solid	8081B	322946
480-106629-6	KU-B-7-S1	Total/NA	Solid	8081B	322946
480-106629-8	KU-B-8-S1	Total/NA	Solid	8081B	322946
480-106629-10	KU-B-9-S1	Total/NA	Solid	8081B	322946
MB 480-322946/1-A	Method Blank	Total/NA	Solid	8081B	322946
LCS 480-322946/2-A	Lab Control Sample	Total/NA	Solid	8081B	322946

Metals

Prep Batch: 322987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	7471B	
480-106629-2	KU-SS-2	Total/NA	Solid	7471B	
480-106629-3	KU-SS-3	Total/NA	Solid	7471B	
480-106629-6	KU-B-7-S1	Total/NA	Solid	7471B	
480-106629-8	KU-B-8-S1	Total/NA	Solid	7471B	
480-106629-10	KU-B-9-S1	Total/NA	Solid	7471B	
MB 480-322987/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-322987/22-A ^	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-322987/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	
480-106629-1 MS	KU-SS-1	Total/NA	Solid	7471B	
480-106629-1 MSD	KU-SS-1	Total/NA	Solid	7471B	

Prep Batch: 323052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	3050B	
480-106629-2	KU-SS-2	Total/NA	Solid	3050B	
480-106629-3	KU-SS-3	Total/NA	Solid	3050B	
480-106629-6	KU-B-7-S1	Total/NA	Solid	3050B	
480-106629-8	KU-B-8-S1	Total/NA	Solid	3050B	
480-106629-10	KU-B-9-S1	Total/NA	Solid	3050B	
MB 480-323052/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-323052/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-106629-2 MS	KU-SS-2	Total/NA	Solid	3050B	
480-106629-2 MSD	KU-SS-2	Total/NA	Solid	3050B	

Analysis Batch: 323079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	7471B	322987
480-106629-2	KU-SS-2	Total/NA	Solid	7471B	322987
480-106629-3	KU-SS-3	Total/NA	Solid	7471B	322987
480-106629-6	KU-B-7-S1	Total/NA	Solid	7471B	322987
480-106629-8	KU-B-8-S1	Total/NA	Solid	7471B	322987
480-106629-10	KU-B-9-S1	Total/NA	Solid	7471B	322987
MB 480-322987/1-A	Method Blank	Total/NA	Solid	7471B	322987
LCDSRM 480-322987/22-A ^	Lab Control Sample Dup	Total/NA	Solid	7471B	322987
LCSSRM 480-322987/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	322987
480-106629-1 MS	KU-SS-1	Total/NA	Solid	7471B	322987
480-106629-1 MSD	KU-SS-1	Total/NA	Solid	7471B	322987

Metals (Continued)

Analysis Batch: 323471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	6010C	323052
480-106629-2	KU-SS-2	Total/NA	Solid	6010C	323052
480-106629-3	KU-SS-3	Total/NA	Solid	6010C	323052
480-106629-6	KU-B-7-S1	Total/NA	Solid	6010C	323052
MB 480-323052/1-A	Method Blank	Total/NA	Solid	6010C	323052
LCSSRM 480-323052/2-A	Lab Control Sample	Total/NA	Solid	6010C	323052
480-106629-2 MS	KU-SS-2	Total/NA	Solid	6010C	323052
480-106629-2 MSD	KU-SS-2	Total/NA	Solid	6010C	323052

Analysis Batch: 323567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-8	KU-B-8-S1	Total/NA	Solid	6010C	323052
480-106629-10	KU-B-9-S1	Total/NA	Solid	6010C	323052

General Chemistry

Prep Batch: 322917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-2	KU-SS-2	Total/NA	Solid	9012B	
480-106629-3	KU-SS-3	Total/NA	Solid	9012B	
480-106629-6	KU-B-7-S1	Total/NA	Solid	9012B	
480-106629-8	KU-B-8-S1	Total/NA	Solid	9012B	
480-106629-10	KU-B-9-S1	Total/NA	Solid	9012B	
MB 480-322917/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-322917/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
480-106629-10 MS	KU-B-9-S1	Total/NA	Solid	9012B	

Analysis Batch: 322938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-4	KU-B-4-S1	Total/NA	Solid	Moisture	
480-106629-5	KU-B-4-S2	Total/NA	Solid	Moisture	
480-106629-6	KU-B-7-S1	Total/NA	Solid	Moisture	
480-106629-7	KU-B-7-S2	Total/NA	Solid	Moisture	
480-106629-8	KU-B-8-S1	Total/NA	Solid	Moisture	
480-106629-9	KU-B-8-S2	Total/NA	Solid	Moisture	
480-106629-10	KU-B-9-S1	Total/NA	Solid	Moisture	
480-106629-11	KU-B-9-S2	Total/NA	Solid	Moisture	

Analysis Batch: 322989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	Moisture	
480-106629-2	KU-SS-2	Total/NA	Solid	Moisture	
480-106629-3	KU-SS-3	Total/NA	Solid	Moisture	

Analysis Batch: 323071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-2	KU-SS-2	Total/NA	Solid	9012B	322917
480-106629-3	KU-SS-3	Total/NA	Solid	9012B	322917
480-106629-6	KU-B-7-S1	Total/NA	Solid	9012B	322917
480-106629-8	KU-B-8-S1	Total/NA	Solid	9012B	322917

General Chemistry (Continued)

Analysis Batch: 323071 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-10	KU-B-9-S1	Total/NA	Solid	9012B	322917
MB 480-322917/1-A	Method Blank	Total/NA	Solid	9012B	322917
LCSSRM 480-322917/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	322917
480-106629-10 MS	KU-B-9-S1	Total/NA	Solid	9012B	322917

Prep Batch: 323603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	9012B	
MB 480-323603/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-323603/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 323702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106629-1	KU-SS-1	Total/NA	Solid	9012B	323603
MB 480-323603/1-A	Method Blank	Total/NA	Solid	9012B	323603
LCSSRM 480-323603/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	323603

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-SS-1
Date Collected: 09/26/16 12:25
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 00:46	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322989	09/29/16 08:43	CSW	TAL BUF

Client Sample ID: KU-SS-1
Date Collected: 09/26/16 12:25
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-1
Matrix: Solid
Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		10	323936	10/06/16 01:11	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		50	323482	10/03/16 14:24	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323471	10/01/16 23:02	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 12:50	RMZ	TAL BUF
Total/NA	Prep	9012B			323603	10/03/16 18:40	DJS	TAL BUF
Total/NA	Analysis	9012B		1	323702	10/04/16 10:12	KRT	TAL BUF

Client Sample ID: KU-SS-2
Date Collected: 09/27/16 10:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 01:02	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322989	09/29/16 08:43	CSW	TAL BUF

Client Sample ID: KU-SS-2
Date Collected: 09/27/16 10:00
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-2
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		10	323936	10/06/16 01:37	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		10	323482	10/03/16 14:44	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323471	10/01/16 23:05	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 12:56	RMZ	TAL BUF
Total/NA	Prep	9012B			322917	09/28/16 17:45	DJS	TAL BUF

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-SS-2

Lab Sample ID: 480-106629-2
Date Collected: 09/27/16 10:00
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	323071	09/29/16 12:50	KRT	TAL BUF

Client Sample ID: KU-SS-3

Lab Sample ID: 480-106629-3
Date Collected: 09/27/16 07:50
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 01:18	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322989	09/29/16 08:43	CSW	TAL BUF

Client Sample ID: KU-SS-3

Lab Sample ID: 480-106629-3
Date Collected: 09/27/16 07:50
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		5	323936	10/06/16 02:04	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		10	323482	10/03/16 15:03	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323471	10/01/16 23:22	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 12:58	RMZ	TAL BUF
Total/NA	Prep	9012B			322917	09/28/16 17:45	DJS	TAL BUF
Total/NA	Analysis	9012B		1	323071	09/29/16 12:51	KRT	TAL BUF

Client Sample ID: KU-B-4-S1

Lab Sample ID: 480-106629-4
Date Collected: 09/26/16 15:25
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-4-S1

Lab Sample ID: 480-106629-4
Date Collected: 09/26/16 15:25
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 05:15	CDC	TAL BUF

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-4-S2

Lab Sample ID: 480-106629-5
Date Collected: 09/26/16 16:00
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-4-S2

Lab Sample ID: 480-106629-5
Date Collected: 09/26/16 16:00
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 05:41	CDC	TAL BUF
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		1	323936	10/06/16 02:31	DMR	TAL BUF

Client Sample ID: KU-B-7-S1

Lab Sample ID: 480-106629-6
Date Collected: 09/26/16 09:00
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 01:34	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-7-S1

Lab Sample ID: 480-106629-6
Date Collected: 09/26/16 09:00
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 06:06	CDC	TAL BUF
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		10	323936	10/06/16 02:58	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		20	323482	10/03/16 15:23	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323471	10/01/16 23:25	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 12:59	RMZ	TAL BUF
Total/NA	Prep	9012B			322917	09/28/16 17:45	DJS	TAL BUF
Total/NA	Analysis	9012B		1	323071	09/29/16 12:53	KRT	TAL BUF

Client Sample ID: KU-B-7-S2

Lab Sample ID: 480-106629-7
Date Collected: 09/26/16 09:35
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-7-S2

Lab Sample ID: 480-106629-7
Date Collected: 09/26/16 09:35
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 06:32	CDC	TAL BUF

Client Sample ID: KU-B-8-S1

Lab Sample ID: 480-106629-8
Date Collected: 09/26/16 11:45
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 02:22	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-8-S1

Lab Sample ID: 480-106629-8
Date Collected: 09/26/16 11:45
Matrix: Solid
Date Received: 09/28/16 10:00
Percent Solids: 97.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 06:57	CDC	TAL BUF
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		1	323936	10/06/16 03:25	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		1	323482	10/03/16 15:42	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323567	10/03/16 12:53	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 13:00	RMZ	TAL BUF
Total/NA	Prep	9012B			322917	09/28/16 17:45	DJS	TAL BUF
Total/NA	Analysis	9012B		1	323071	09/29/16 12:54	KRT	TAL BUF

Client Sample ID: KU-B-8-S2

Lab Sample ID: 480-106629-9
Date Collected: 09/26/16 11:50
Matrix: Solid
Date Received: 09/28/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-8-S2

Date Collected: 09/26/16 11:50
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-9
Matrix: Solid
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 07:23	CDC	TAL BUF

Client Sample ID: KU-B-9-S1

Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			322875	09/28/16 14:49	ARS	TAL BUF
Total/NA	Analysis	8082A		1	322908	09/29/16 02:38	JMO	TAL BUF
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Client Sample ID: KU-B-9-S1

Date Collected: 09/27/16 09:45
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-10
Matrix: Solid
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 07:49	CDC	TAL BUF
Total/NA	Prep	3550C			323357	10/01/16 08:22	MAS	TAL BUF
Total/NA	Analysis	8270D		1	323936	10/06/16 03:52	DMR	TAL BUF
Total/NA	Prep	3550C			322946	09/29/16 06:06	CPH	TAL BUF
Total/NA	Analysis	8081B		1	323482	10/03/16 16:02	MAN	TAL BUF
Total/NA	Prep	3050B			323052	09/29/16 14:30	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	323567	10/03/16 12:57	AMH	TAL BUF
Total/NA	Prep	7471B			322987	09/29/16 09:30	RMZ	TAL BUF
Total/NA	Analysis	7471B		1	323079	09/29/16 13:05	RMZ	TAL BUF
Total/NA	Prep	9012B			322917	09/28/16 17:45	DJS	TAL BUF
Total/NA	Analysis	9012B		1	323071	09/29/16 12:58	KRT	TAL BUF

Client Sample ID: KU-B-9-S2

Date Collected: 09/27/16 09:40
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	322938	09/28/16 22:50	NMD1	TAL BUF

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Client Sample ID: KU-B-9-S2
Date Collected: 09/27/16 09:40
Date Received: 09/28/16 10:00

Lab Sample ID: 480-106629-11
Matrix: Solid
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			322934	09/28/16 21:07	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	322933	09/29/16 08:15	CDC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

The following analytes are included in this report, but 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: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Karges & Uhlen Phase II - Soils

TestAmerica Job ID: 480-106629-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-106629-1	KU-SS-1	Solid	09/26/16 12:25	09/28/16 10:00
480-106629-2	KU-SS-2	Solid	09/27/16 10:00	09/28/16 10:00
480-106629-3	KU-SS-3	Solid	09/27/16 07:50	09/28/16 10:00
480-106629-4	KU-B-4-S1	Solid	09/26/16 15:25	09/28/16 10:00
480-106629-5	KU-B-4-S2	Solid	09/26/16 16:00	09/28/16 10:00
480-106629-6	KU-B-7-S1	Solid	09/26/16 09:00	09/28/16 10:00
480-106629-7	KU-B-7-S2	Solid	09/26/16 09:35	09/28/16 10:00
480-106629-8	KU-B-8-S1	Solid	09/26/16 11:45	09/28/16 10:00
480-106629-9	KU-B-8-S2	Solid	09/26/16 11:50	09/28/16 10:00
480-106629-10	KU-B-9-S1	Solid	09/27/16 09:45	09/28/16 10:00
480-106629-11	KU-B-9-S2	Solid	09/27/16 09:40	09/28/16 10:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: L. Best	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-86931-21226.2
Client Contact: Ms. Stephanie Reynolds-Smith	Phone: 585-413-5327	E-Mail: ryan.vandette@testamericainc.com		Page: 1 (10) Page 2 of 2 1
Company: Stantec Consulting Services Inc				Job #:
Address: 61 Commercial Street	Due Date Requested:			
City: Rochester	TAT Requested (days): 10-day			
State, Zip: NY, 14614				
Phone: 585-413-5272	PO #: Purchase Order not required			
Email: stephanie.reynoldssmith@stantec.com	WO #: 10137			
Project Name: Karges & Uhlen Phase II	Project #: 48014678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2S, R - Na2S, S - H2SO, T - TSP, U - Acet, V - MCA, W - pH, Z - other

Other:

480-106629 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012B - Cyanide, Total	6010C, 7471B Pb RCRA Metals	8081B, 8082A, 8270D	8260C - (MOD) TCL list OLM04.2 + Cp-51	8270D										Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N												
KU-SS-1	9/26/16	12:25	G	Solid			X	X	X												3	
KU-SS-2	9/27/16	10:00	G	Solid			X	X	X												3	
KU-SS-3	9/27/16	07:50	G	Solid			X	X	X												3	
KU-B-4-S1	9/26/16	15:25	G	Solid						X											1	
KU-B-4-S2	9/26/16	16:00	G							X	X										2	Please analyze the 4OZ jar for VOCs; if any leftover, run SVOCs (can combine w/ partial 2nd jar [8 OZ size] and through volume
KU-B-7-S1	9/26/16	09:00	G				X	X	X	X											4	
KU-B-7-S2	9/26/16	09:35	G				~~X~~ (2B)			X											1	
KU-B-8-S1	9/26/16	11:45	G				X	X	X	X											4	
KU-B-8-S2	9/26/16	11:50	G							X											1	
KU-B-9-S1	9/27/16	09:45	G				X	X	X	X											4	
KU-B-9-S2	9/27/16	09:40	G	↓						X											1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements: NYSDEC EQUIS EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Laura Best	9/27/16 16:30	Stantec	FEDEX		
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					9/28/16 1000	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7 B

10/11/2016

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-106629-1

Login Number: 106629
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	stantec
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	