

**General Electric Company**

**Former Wood Crib Assessment  
Report**

**Former TBE Machine Shop Property  
Nikiski, Alaska**

ADEC File No. 2323.38.029

October 2015



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Prepared for:  
General Electric Company

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## Acronyms and Abbreviations

ADEC	Alaska Department of Environmental Conservation
ARCADIS	ARCADIS U.S., Inc.
amsl	above mean sea level
bgs	below ground surface
COPC	contaminant of potential concern
DOT	department of transportation
DRO	diesel range organics
ft <sup>2</sup>	square feet
GE	the General Electric Company
GRO	gasoline range organics
GPR	ground penetrating radar
LNAPL	light non-aqueous phase liquid
mg/kg	milligrams per kilogram
PCB	polychlorinated biphenyl
PCE	trichloroethylene
PID	photo ionization detector
Plan	Former Wood Crib Assessment Work Plan
TBE	TBE Machine Company, Inc.
TCE	tetrachloroethylene
SCL	Soil Cleanup Level
TestAmerica	TestAmerica, Inc.
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

## 1. Introduction

On behalf of the General Electric Company (GE), ARCADIS U.S., Inc. (ARCADIS) has prepared this report to summarize the Former Wood Crib Assessment performed at the former TBE Machine Shop Property located in Nikiski, Alaska (“Site”). The assessment was completed to identify the nature and extent of contaminants of potential concern (COPCs) in soil associated with the wood cribs at the Site. The assessment activities were performed as outlined in the Former Wood Crib Assessment Work Plan (Plan) (ARCADIS 2015). The assessment activities were completed on June 3<sup>rd</sup> and 4<sup>th</sup>, 2015. The work was conducted under the direction of a “qualified person” [18 AAC 75. 990 (100) and 18 AAC 78.995 (118)]. The Site location and surrounding area are shown on **Figure 1**. Current Site features are shown on **Figure 2**.

## 2. Site Description

The Site includes Lots 11 and 12 of the Bernice Lake, Alaska Industrial Subdivision, within the Kenai Peninsula Borough (KPB), Alaska. The Site comprises approximately 74,000 square feet (ft<sup>2</sup>) and is located at 49200 Kenai Spur Highway (milepost 22.5), Nikiski, Alaska. The Site is currently unoccupied and the land is leased by GE. The Site was used by GE prior to 1984 as an apparatus service shop. After 1984, it was leased by GE to TBE Machine Company, Inc. (TBE), which serviced oil field equipment. Operations were conducted in a 12,500 ft<sup>2</sup> steel-framed building on a concrete slab foundation. The building and concrete slab were deconstructed and removed by ARCADIS, on behalf of GE, as part of Site improvements completed in October 2014. No operations are currently being conducted at the Site, with the exception of property maintenance and the operation and maintenance of an in-well remediation groundwater treatment system, the components of which are housed in a small shed.

## 3. Site Geology and Hydrogeology

The Site lies on the western margin of the Kenai Lowlands, which is a sub-province of the Cook Inlet-Susitna Lowlands physiographic region. Approximately 100 miles long, the coastal shelf is bounded to the west by Cook Inlet, to the north by Turnagain arm, and to the south by Katchemak Bay. The Site lies in an area of relatively low topographic relief, at an approximate elevation of 115 feet above mean

sea level (amsl). The nearest surface water bodies are Bernice Creek, approximately 800 feet south of the Site, and Bernice Lake, approximately 700 feet southeast of the Site.

During Quaternary time, the Kenai Lowlands were affected by no less than five separate major glaciation episodes. Glaciers, glacier-fed streams, and periglacial winds transported sediments across the region, eventually depositing clay, silt, sand, and gravel in area basins and lakes. At numerous times, the lower portion of Cook Inlet was ice-dammed, resulting in proglacial lakes that deposited thick accumulations of fine-grained lacustrine sediments over large portions of the lowlands. At the Site, near surface deposits consist of a mixture of glacial till, fluvial, lacustrine, and coastal plan sediments of Quaternary age. An extensive layer of clay and silt exists at approximately 100 feet below ground surface (bgs), which forms the uppermost hydrogeologic confining layer. Groundwater above the confining layer generally exists in an unconfined state, while regional groundwater below the confining layer is semi-confined to confined. Hydrologic flow in the lower, semi-confined to confined groundwater, flows to Cook Inlet, while flow paths in the upper unconfined groundwater layer vary and are influenced by surface topography. A water supply well was installed at the Site in 1966 just north of the northwest corner of the former building location (**Figure 2**). The well extends to a depth of 80 feet bgs and is screened in the underlying confined aquifer. The potentiometric surface of the underlying confined aquifer is higher than that of the upper unconfined aquifer, indicating a potential upward vertical flow gradient.

Subsurface lithology recorded during previous investigations at the Site consists of slightly consolidated sand and sand/gravel mixtures. Shallow groundwater is encountered at a depth of approximately 45 feet bgs and is unconfined, consistent with the regional hydrogeology. Water elevation data from the Site indicate a generally flat gradient with limited groundwater flow, interpreted as slight movement to the east/southeast.

#### **4. Historical Groundwater and Soil Assessment**

Groundwater quality at the Site has been monitored since 1999. Constituents of concern in groundwater at the Site include chlorinated solvent compounds and fuel constituents, including diesel range organics (DRO) and gasoline range organics (GRO). Groundwater quality at the Site is being monitored through a network of 11 monitoring wells, and groundwater is currently being treated by an in-well remediation treatment technology, as documented by the *ART Post-System Startup Report*

submitted to Alaska Department of Environmental Conservation (ADEC) on August 15, 2014 by ARCADIS on behalf of GE. Groundwater elevations and water quality are currently monitored on a quarterly basis to monitor groundwater conditions. The locations of the on-Site monitoring wells are shown on **Figure 2**.

During the injection permitting process for the above-mentioned ART system, it was brought to the attention of GE that the existing wood cribs would need to be properly closed. This Report documents the evaluation of potential soil impacts that was performed related to the wood cribs and leach fields associated with the cesspool and former septic and floor drain systems that are located to the east of the former building. Three floor drains historically ran east to west underneath the location of the former building. Liquids from the drains went through an oil/water separator and then discharged to the cesspool. The oil/water separator was removed at some earlier date. The cesspool was excavated and removed in 1998, and the termination point was found to be a wood crib that was approximately 4' x 4' x 4' and buried at a depth of 8-12 feet bgs. The cesspool crib was found to be located 8 feet northeast of a septic crib, which is buried at approximately the same depth. During excavation, it was discovered that an overflow pipe from the septic crib also discharged into the cesspool crib. The septic crib remains in-place. The locations of the drainage features and crib locations are shown on **Figure 3**.

## 5. Constituents of Potential Concern

Based on review of historical data and reports, in comparison to Soil Cleanup Levels (SCLs), COPCs at the Site related to the former crib areas include the following:

- fuel hydrocarbons (DRO, GRO);
- chlorinated compounds (tetrachloroethylene [TCE], trichloroethylene [PCE]);
- volatile organic compound (VOC) constituents (ethylbenzene, xylenes); and
- polychlorinated biphenyls (PCBs).

COPCs for this Site and the associated SCLs (based on migration to groundwater criteria, and direct contact criteria [for consideration of surficial samples]) are presented in the table below (Alaska Administrative Code 75.341(c), 2008):



COPC	Migration to GW Soil Cleanup Level (mg/kg)	Direct Contact Soil Cleanup Level (mg/kg)
GRO	300	1,400
DRO	250	10,250
PCE	0.024	15
TCE	0.020	21
Ethylbenzene	6.9	10,100
Total Xylenes	63	20,300
PCBs	NA	1

## 6. Wood Crib Assessment Activities

The 2015 assessment was completed to evaluate potential soil impacts related to the cesspool crib (removed in 1998), the adjacent septic tank, crib, and associated drain lines. Specifically, soil samples were collected for field screening and laboratory analysis to delineate the horizontal and vertical extent of COPC-containing soil related to these historical features. The following activities were completed as part of the assessment:

- advanced ten soil boring via hand auger and Geoprobe;
- soil screening and sample collection;
- soil boring backfill; and
- containerization of soil cores.

These activities are described Sections 6.1 through 6.3 and section 8.

### 6.1 Soil Boring Locations and Advancement

Prior to soil sampling, a public utility locate was performed as well as an evaluation by a private locating firm using electromagnetic and ground penetrating radar (GPR) equipment. The survey was performed both to identify and avoid any potential utility conflicts during drilling, and to try to identify the location of the features of interest (wood cribs and septic tank). GPR results were inconclusive and the features could not be positively identified, so the ten boring locations were cited based on existing site knowledge and survey control. The soil boring locations are shown on **Figure 3**.

Soil borings WC-1-S through WC-10-S were first advanced to 5 feet bgs using hand auger/vacuum excavation as an added utility clearance measure. The borings were then advanced using a Geoprobe™ (direct push/hollow stem auger) drilling rig to a terminal depth of 15 feet bgs. During the advancement of each boring, three soil samples were collected for lab analysis. The soil samples were collected at depths of 0 to 2 feet bgs, at the interval with the highest PID reading or that coincided with a known site feature, and from 13 to 15 feet bgs. Four duplicate soil samples were collected from WC-1-S (4 to 6 feet bgs), WC-3-S (13 to 15 feet bgs), WC-5-S (13 to 15 feet bgs), and WC-9-S (0 to 2 feet bgs).

Based on review of initial results from the intervals above, additional samples were collected at locations WC-6-S and WC-7-S at depths of 18-20 feet bgs and 23-25 feet bgs.

### 6.2 Soil Sample Collection Methods

Each core/split spoon was inspected by ARCADIS field staff and screened using a photo ionization detector (PID). Analytical samples were collected based on field screening indications as described above. Analytical samples were placed directly into clean, laboratory-supplied containers and preserved specific to the analysis to be performed. Soil only came into contact with properly decontaminated or disposable materials and handling of the soils was kept at a minimum to prevent volatilization or possible cross-contamination. Samples were collected in accordance with ADEC Draft Field Sampling Guidance (ADEC 2010).

Sample containers were labeled to include the date, time, location and depth of the sample collection, and were immediately stored in an iced cooler, and kept at a

temperature of 2 to 6 degrees Celsius. The samples were retained at this temperature and accompanied by the chain-of-custody through delivery to the laboratory. Collected samples were referenced on field boring logs included as **Appendix A** and in field note documents included as **Appendix B**.

### 6.3 Field Screening

Soil samples were field screened continuously during boring advancement activities using a PID and visually classified using the Unified Soil Classification System (USCS) by trained ARCADIS field staff. Soils collected during the boring advancement were placed into a sealable plastic bag and allowed to volatilize for at least 10 minutes, but no more than 60 minutes. A PID was then inserted into a small opening of the plastic bag and used to read the concentration of VOCs in the bag. The VOC reading was recorded on the boring logs and field sheets used to document drilling activities. Field screening for volatiles also included a visual inspection of soils for the presence of light non-aqueous phase liquid (LNAPL), hydrocarbon odor or hydrocarbon sheen. Field screening values, lithology descriptions and soil classifications were recorded on boring logs included in **Appendix A**.

### 6.4 Soil Analytical Methods

Soil sample analysis was conducted by TestAmerica Laboratories, Inc. (TestAmerica) in Seattle, WA. The laboratory analytical methods used to complete the analyses are listed in the table below.

COPC	Lab Method
GRO	Alaska Method AK 101
DRO	Alaska Method AK 102
TCE, PCE, Ethylbenzene, Total Xylenes	United States Environmental Protection Agency (USEPA) Method 82060B
PCBs	USEPA Method 8082A

## 6.5 Soil Analytical Results

Soil analytical results were reported on a dry-weight basis. Soil analytical results are presented in **Table 1**. Soil analytical results that exceed ADEC Soil Cleanup Levels (SCLs) are presented on **Figure 4**.

Samples were collected from 10 soil boring locations as part of the former wood crib assessment. Soil borings were advanced to a depth of 15 feet bgs at each location. At two locations, borings were advanced to a depth of 25 feet bgs to achieve vertical delineation of COPCs above SCLs. A total of 34 samples were collected and analyzed by TestAmerica. Results were compared to ADEC Migration to Groundwater (and for surface samples, Direct Contact) SCLs, as listed in Section 5.

COPCs were not detected above SCLs at 7 of the 10 soil boring locations (WC-1-S, WC-2-S, WC-4-S, WC-5-S, WC-8-S, WC-9-S, and WC-10-S). PCBs were not detected at concentrations above the SCL of 1 mg/kg in any of the samples analyzed. One or more COPCs including GRO, DRO, m and p-Xylenes, total Xylenes, Ethylbenzene, PCE, and TCE were detected at concentrations greater than their applicable SCLs at three of the ten soil boring locations, as described below.

Soil samples at boring WC-3-S exceeded SCLs for PCE and TCE at depths of 0-2 feet bgs and 9-11 feet bgs, respectively. Since PCE was found in a surface sample, the result (0.027 mg/kg) was also compared to the Direct Contact SCL of 15 mg/kg. The Direct Contact SCL was not exceeded at this or any other sample locations. A sample collected from the same location at a depth of 13-15 feet bgs did not exceed SCLs for any COPC. Therefore, vertical delineation is considered complete at this location.

Soil samples at boring WC-6-S exceeded SCLs for GRO, DRO, m and p-Xylenes, total Xylenes, Ethylbenzene, PCE, and TCE at depths 9-11 feet bgs and 13-15 feet bgs. This soil boring was located in the approximate area of the former cesspool crib. The depth of COPCs above SCLs corresponds to the approximate depth where the crib had been reportedly buried (8-12 feet bgs). Two additional samples were collected at 18-20 feet bgs and 23-25 feet bgs to ensure full vertical delineation of COPCs. Soil concentrations of COPCs in both of the deeper samples were below SCLs.

Soil samples at boring WC-7-S exceeded SCLs for DRO and GRO in the sample collected at 11-13 feet bgs and DRO in the sample collected at 13-15 feet bgs. This soil boring was located in the approximate area of the septic crib. The septic crib is reportedly buried at a depth similar to the cesspool crib. Two additional samples were

collected at 18-20 feet bgs and 23-25 feet bgs to ensure full vertical delineation of COPCs. Soil concentrations of COPCs in both of the deeper samples were below SCLs.

## 7. Laboratory Data Quality Assurance Summary

As required by the ADEC (2009b), ARCADIS completed a laboratory data review checklist for the Test America laboratories reports from the former wood crib assessment. The laboratory analytical reports are included in **Appendix C** and the ADEC data review checklists are included in **Appendix D**.

### 7.1 Accuracy

Accuracy is evaluated using percent recoveries for laboratory quality control samples such as laboratory control samples (LCS), laboratory control sample duplicates (LCSD), matrix spike (MS) samples, and matrix spike sample duplicates (MSD). The LCS percent recoveries were outside the laboratory upper control limit for multiple VOC analytes evaluated during the June 2015 assessment. The MS and/or MSD percent recoveries were outside the laboratory upper control limit for multiple VOC analytes evaluated during the June 2015 assessment. The ADEC quality assurance/quality control (QA/QC) checklists (Appendix D) contain details regarding this review. The data meet accuracy objectives as indicated by the laboratory quality control samples.

### 7.2 Precision

Field duplicate samples were collected at a frequency of approximately 10 percent of the overall number of samples collected as part of the former wood crib assessment. The relative percent difference (RPD) between the parent sample and associated field duplicate was calculated and used to evaluate field sampling precision. Multiple field duplicate/parent sample RPDs exceeded the project data quality objective (DQO) of 50% for soil samples. The ADEC QA/QC checklists (Appendix D) contain details regarding this review. The data meet precision objectives for LCS and LCSD and MS and MSD RPDs.

### 7.3 Representativeness

The data appear to be representative of on-Site conditions and are generally consistent with objectives to further delineate the Site impacts.

#### **7.4 Comparability**

The laboratory results are presented in the same units as previous reports to allow for comparison between reports.

#### **7.5 Completeness**

The results appear to be valid and usable, and meet the ADEC completeness goal.

A review of the laboratory data packages indicates that the collected samples are considered to be representative of Site conditions at the locations and times they were obtained. Based on the review, no samples were rejected as unusable due to QC failures.

#### **7.6 Sensitivity**

Laboratory method blanks were analyzed in association with samples collected for this project to check for contributions to the analytical results possibly attributable to laboratory-based contamination. Trip blanks were submitted with soil samples for VOC and GRO analysis to verify that cross-contamination did not occur during sample handling and transport. A trip blank was listed on the chain of custody (COC) for soil samples collected in July 2015, however, results were not presented in the laboratory report. There were detections in two of the method blanks associated with VOC analysis for some samples collected in June 2015. The ADEC QA/QC checklists (Appendix D) contain details regarding this review. There were no additional blank detections affecting the data quality for the reporting period.

### **8. Management of Investigation-Derived Wastes**

Soil cuttings generated during the field activities are contained in Department of Transportation (DOT)-approved, 55-gallon steel drums. The investigation-derived waste drums have been appropriately labeled and remain on-Site awaiting disposal in conjunction with future Site activities.

### **9. Summary and Conclusions**

Ten soil borings (WC-1-S through WC-10-S) were advanced during the former wood crib assessment activities. Soil samples were collected and submitted to TestAmerica for analysis of the following compounds: GRO, DRO, m- and p-Xylene, total Xylenes,

Ethylbenzene, PCE, TCE, and PCBs. COC concentrations above ADECs migration to groundwater SCLs were detected in samples collected from borings WC-3-S, WC-6-S, and WC-7-S as follows:

The soil sample from WC-3-S between 0 and 2 feet bgs identified concentrations of PCE greater than the ADEC migration to groundwater SCL; however, the PCE detection was well below the direct contact SCL of 15 mg/kg. Migration to groundwater is considered vertically delineated by deeper samples at that location collected at depths of 9-11 feet and 13-15 feet bgs.

Boring location WC-6-S was advanced in the immediate vicinity of the former cesspool wood crib, and boring location WC-7-S was advanced in the immediate vicinity of the septic wood crib. Soil samples collected from boring WC-6 between 9 and 15 feet bgs identified concentrations of GRO, DRO, m & p Xylenes, Ethylbenzene, PCE, TCE, and total Xylenes greater than the ADEC SCLs. Soil samples collected from WC-7 identified GRO and DRO (between 11 and 13 feet bgs) and GRO (between 13 and 15 ft. bgs) at concentrations greater than the ADEC SCLs. Deeper samples were collected from between 18 to 20 feet bgs and 23 to 25 feet bgs at both WC-6-S and WC-7-S. There were no exceedances of ADEC SCLs in the deeper intervals, providing full vertical delineation of all COCs at these locations. Horizontal delineation of all COCs is provided by sample data from locations WC-3-S through WC-5-S and WC-8-S through WC-10-S.

Based on the results of the former wood crib assessment, residual GRO, DRO, m and p-Xylenes, total Xylenes, Ethylbenzene, PCE, and TCE impacts were confirmed in the vicinity of the septic crib and cesspool. The extent of these COCs above ADEC SCLs has been horizontally and vertically delineated.

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**Tables**

**Table 1**  
**Summary of Detected Soil Sample Analytical Results**

**Former Wood Crib Assessment Report**  
**General Electric Company, Nikiski, Alaska**

Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-1-S 0 - 2 06/04/15	WC-1-S 4 - 6 06/04/15	WC-1-S 13 - 15 06/04/15	WC-2-S 0 - 2 06/04/15	WC-2-S 4 - 6 06/04/15	WC-2-S 13 - 15 06/04/15
<b>Detected PCBs</b>									
Aroclor-1016	--	1	mg/kg	0.01 U	0.01 U [0.0096 U]	0.01 U	0.01 U	0.011 U	0.011 U
Aroclor-1254	--	1	mg/kg	0.01 U	0.01 U [0.0096 U]	0.01 U	0.01 U	0.011 U	0.011 U
Aroclor-1260	--	1	mg/kg	0.01 U	0.01 U [0.0096 U]	0.01 U	0.01 U	0.011 U	0.011 U
<b>Detected Volatile Organics</b>									
m-Xylene & p-Xylene	63	20,300	mg/kg	0.019 JB*	0.01 JB* [0.0036 U]	0.0035 U*	0.0036 U*	0.0033 U*	0.0036 U*
Ethylbenzene	6.9	10,100	mg/kg	0.0066 JB*	0.004 JB* [0.0037 JB]	0.0024 U*	0.0024 U*	0.0022 U*	0.0024 U*
Tetrachloroethene (PCE)	0.024	15	mg/kg	0.017 JB	0.014 JB [0.0064 U]	0.0063 U	0.0063 U	0.0058 U	0.0064 U
Trichloroethene (TCE)	0.02	21	mg/kg	0.0079 J*	0.0077 J* [0.0037 U]	0.0037 U*	0.0037 U*	0.0034 U*	0.0037 U*
Xylenes (o)	63	20,300	mg/kg	0.025 J*	0.014 J* [0.0036 U]	0.0035 U*	0.0036 U*	0.0033 U*	0.0036 U*
Xylenes (total)	63	20,300	mg/kg	0.044 B*	0.024 JB* [0.0036 U]	0.0035 U*	0.0036 U*	0.0033 U*	0.0036 U*
<b>Detected Gasoline Range Organics</b>									
GRO (C6-C10)	300	1,400	mg/kg	4.4 U	4.9 U [4.6 U]	4.7 U	4.8 U	4.4 U	4.8 U
<b>Detected Diesel Range Organics</b>									
DRO (C10-C25)	250	10,250	mg/kg	20 Y	20 U [21 U]	20 U	19 U	20 U	21 U

Notes:

Exceeds Migration to GW SCL

B - Analyte was also detected in the associated method blank.

J - Indicates an estimated value.

[ ] - data is the result of a blind field duplicate sample analysis

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

U\* - The compound was analyzed for but not detected. The associated value is the compound quantitation limit. RPD of the LCS and LCSD exceeds the control limits.

Y - The chromatographic response resembles a typical fuel pattern.

**Table 1**  
**Summary of Detected Soil Sample Analytical Results**

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Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-3-S 0 - 2 06/03/15	WC-3-S 9 - 11 06/03/15	WC-3-S 13 - 15 06/03/15	WC-4-S 0 - 2 06/03/15	WC-4-S 9 - 11 06/03/15	WC-4-S 13 - 15 06/03/15
<b>Detected PCBs</b>									
Aroclor-1016	--	1	mg/kg	0.012 U	0.013 U	0.01 U [0.0097 U]	0.012 U	0.013 U	0.01 U
Aroclor-1254	--	1	mg/kg	0.012 U	0.013 U	0.01 U [0.0097 U]	0.012 U	0.013 U	0.01 U
Aroclor-1260	--	1	mg/kg	0.012 U	0.013 U	0.01 U [0.0097 U]	0.012 U	0.013 U	0.01 U
<b>Detected Volatile Organics</b>									
m-Xylene & p-Xylene	63	20,300	mg/kg	0.0065 JB*	0.036 J	0.0058 J [0.0046 JB]	0.0055 J	0.0061 J	0.016 J
Ethylbenzene	6.9	10,100	mg/kg	0.0036 JB*	0.0039 J	0.003 J [0.003 JB]	0.0031 U	0.0035 U	0.0064 J
Tetrachloroethene (PCE)	0.024	15	mg/kg	<b>0.027 JB</b>	0.023 J	0.0082 J [0.012 J]	0.0083 U	0.0094 U	0.0071 J
Trichloroethene (TCE)	0.02	21	mg/kg	0.018 J*	<b>0.04 J</b>	0.007 J [0.0091 J]	0.0048 U	0.0085 J	0.014 J
Xylenes (o)	63	20,300	mg/kg	0.0048 U*	0.038 J	0.0048 J [0.0052 JB]	0.0047 U	0.0053 U	0.0073 J
Xylenes (total)	63	20,300	mg/kg	0.0065 JB*	0.074	0.011 J [0.0098 JB]	0.0055 J	0.0061 J	0.023 J
<b>Detected Gasoline Range Organics</b>									
GRO (C6-C10)	300	1,400	mg/kg	6.3 U	6.9 U	4.3 U [4.4 U]	6.2 U	7.1 U	4.4 U
<b>Detected Diesel Range Organics</b>									
DRO (C10-C25)	250	10,250	mg/kg	31 Y	62 Y	21 U [20 U]	26 Y	53 Y	20 U

Notes:

Exceeds Migration to GW SCL

B - Analyte was also detected in the associated method blank.

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[ ] - data is the result of a blind field duplicate sample analysis

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

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**Former Wood Crib Assessment Report**  
**General Electric Company, Nikiski, Alaska**

Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-5-S 0 - 2 06/03/15	WC-5-S 9 - 11 06/03/15	WC-5-S 13 - 15 06/03/15	WC-6-S 0 - 2 06/03/15	WC-6-S 9 - 11 06/03/15	WC-6-S 13 - 15 06/03/15	WC-6-S 18 - 20 07/30/15	WC-6-S 23 - 25 07/30/15
<b>Detected PCBs</b>											
Aroclor-1016	--	1	mg/kg	0.013 U	0.013 U	0.011 U [0.01 U]	0.012 U	0.013 U	0.022	NA	NA
Aroclor-1254	--	1	mg/kg	0.013 U	0.013 U	0.011 U [0.01 U]	0.012 U	0.11	0.16	NA	NA
Aroclor-1260	--	1	mg/kg	0.013 U	0.013 U	0.011 U [0.01 U]	0.021	0.013 U	0.011 U	NA	NA
<b>Detected Volatile Organics</b>											
m-Xylene & p-Xylene	63	20,300	mg/kg	0.0048 U	0.0059 J	0.14 [0.14 B]	0.0088 J	<b>110</b>	<b>79</b>	0.17	0.85
Ethylbenzene	6.9	10,100	mg/kg	0.0032 U	0.0031 U	0.038 J [0.044 JB]	0.0038 J	<b>41</b>	<b>27</b>	0.046	0.28
Tetrachloroethene (PCE)	0.024	15	mg/kg	0.0085 U	0.0082 U	0.0063 U [0.0068 U]	0.0076 U	<b>0.036</b>	<b>0.29</b>	0.0027 U	0.0058 J
Trichloroethene (TCE)	0.02	21	mg/kg	0.005 U	0.0048 U	0.0064 J [0.0067 J]	0.0044 U	<b>0.21</b>	<b>0.18</b>	0.0035 U	0.0032 U
Xylenes (o)	63	20,300	mg/kg	0.0048 U	0.0046 U	0.0071 J [0.0094 JB]	0.0043 U	22	20	0.059	0.44
Xylenes (total)	63	20,300	mg/kg	0.0048 U	0.0059 J	0.15 [0.15 B]	0.0088 J	<b>130</b>	<b>99</b>	0.23	1.3
<b>Detected Gasoline Range Organics</b>											
GRO (C6-C10)	300	1,400	mg/kg	6.4 U	6.2 U	4.8 U [4.9 U]	5.7 U	<b>1,400</b>	<b>1,200</b>	25	24
<b>Detected Diesel Range Organics</b>											
DRO (C10-C25)	250	10,250	mg/kg	41 Y	100 Y	52 Y [22 U]	56 Y	<b>4,500 Y</b>	<b>4,800 Y</b>	100 Y	54 Y

Notes:

Exceeds Migration to GW SCL

B - Analyte was also detected in the associated method blank.

J - Indicates an estimated value.

[ ] - data is the result of a blind field duplicate sample analysis

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

U\* - The compound was analyzed for but not detected. The associated value is the compound quantitation limit. RPD of the LCS and LCSD exceeds the control limits.

Y - The chromatographic response resembles a typical fuel pattern.

**Table 1  
Summary of Detected Soil Sample Analytical Results**

**Former Wood Crib Assessment Report  
General Electric Company, Nikiski, Alaska**

Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-7-S 0 - 2 06/04/15	WC-7-S 11 - 13 06/04/15	WC-7-S 13 - 15 06/04/15	WC-7-S 18 - 20 07/30/15	WC-7-S 23 - 25 07/30/15
<b>Detected PCBs</b>								
Aroclor-1016	--	1	mg/kg	0.012 U	0.017	0.01 U	NA	NA
Aroclor-1254	--	1	mg/kg	0.012 U	0.12	0.041 P	NA	NA
Aroclor-1260	--	1	mg/kg	0.012 U	0.013 U	0.01 U	NA	NA
<b>Detected Volatile Organics</b>								
m-Xylene & p-Xylene	63	20,300	mg/kg	0.0046 J	10	2.9	0.024 J [0.025 J]	0.023 J
Ethylbenzene	6.9	10,100	mg/kg	0.0029 U	0.59	0.15	0.0058 J [0.0065 J]	0.0068 J
Tetrachloroethene (PCE)	0.024	15	mg/kg	0.0077 U	0.009 U	0.0068 U	0.0026 U [0.0028 U]	0.0043 J
Trichloroethene (TCE)	0.02	21	mg/kg	0.0045 U	0.0094 J	0.004 U	0.0033 U [0.0036 U]	0.0035 U
Xylenes (o)	63	20,300	mg/kg	0.0044 U	3.2	0.68	0.0095 J [0.011 J]	0.0091 J
Xylenes (total)	63	20,300	mg/kg	0.0046 J	13	3.6	0.034 [0.036]	0.032
<b>Detected Gasoline Range Organics</b>								
GRO (C6-C10)	300	1,400	mg/kg	5.8 U	<b>800</b>	170	5.4	4.9
<b>Detected Diesel Range Organics</b>								
DRO (C10-C25)	250	10,250	mg/kg	26 Y	<b>8,100 Y</b>	<b>820 Y</b>	36 Y	30 Y

Notes:

Exceeds Migration to GW SCL

B - Analyte was also detected in the associated method blank.

J - Indicates an estimated value.

[ ] - data is the result of a blind field duplicate sample analysis

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

U\* - The compound was analyzed for but not detected. The associated value is the compound quantitation limit. RPD of the LCS and LCSD exceeds the control limits.

Y - The chromatographic response resembles a typical fuel pattern.

**Table 1  
Summary of Detected Soil Sample Analytical Results**

**Former Wood Crib Assessment Report  
General Electric Company, Nikiski, Alaska**

Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-8-S 0 - 2 06/04/15	WC-8-S 9 - 11 06/04/15	WC-8-S 13 - 15 06/04/15	WC-9-S 0 - 2 06/04/15	WC-9-S 9 - 11 06/04/15	WC-9-S 13 - 15 06/04/15
<b>Detected PCBs</b>									
Aroclor-1016	--	1	mg/kg	0.011 U	0.011 U	0.011 U	0.011 U [0.013 U]	0.013 U	0.012 U
Aroclor-1254	--	1	mg/kg	0.011 U	0.011 U	0.011 U	0.011 U [0.013 U]	0.013 U	0.012 U
Aroclor-1260	--	1	mg/kg	0.011 U	0.011 U	0.011 U	0.011 U [0.013 U]	0.013 U	0.012 U
<b>Detected Volatile Organics</b>									
m-Xylene & p-Xylene	63	20,300	mg/kg	0.0044 U	0.0043 J	0.028 J	0.03 J [0.0071 JB]	0.027 J	0.0071 JF1B
Ethylbenzene	6.9	10,100	mg/kg	0.031 J	0.017 J	0.0079 J	0.011 J [0.053 JB]	0.022 J	0.029 JF1B
Tetrachloroethene (PCE)	0.024	15	mg/kg	0.0077 U	0.0069 U	0.0061 U	0.0073 U [0.0097 U]	0.0093 U	0.0088 UF1
Trichloroethene (TCE)	0.02	21	mg/kg	0.0045 U	0.004 U	0.0036 U	0.0042 U [0.0057 U]	0.0055 U	0.0051 UF1
Xylenes (o)	63	20,300	mg/kg	0.02 J	0.013 J	0.0063 J	0.0091 J [0.0055 U]	0.0082 J	0.005 UF1
Xylenes (total)	63	20,300	mg/kg	0.0044 U	0.0043 J	0.034 J	0.039 J [0.0071 JB]	0.035 J	0.0071 JBF1
<b>Detected Gasoline Range Organics</b>									
GRO (C6-C10)	300	1,400	mg/kg	5.8 U	5.2 U	4.6 U	5.5 U [7.1 U]	7 U	6.4 U
<b>Detected Diesel Range Organics</b>									
DRO (C10-C25)	250	10,250	mg/kg	23 U	21 U	21 U	40 Y [62 Y]	80 Y	51 Y

Notes:

Exceeds Migration to GW SCL

B - Analyte was also detected in the associated method blank.

J - Indicates an estimated value.

[ ] - data is the result of a blind field duplicate sample analysis

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

U\* - The compound was analyzed for but not detected. The associated value is the compound quantitation limit. RPD of the LCS and LCSD exceeds the control limits.

Y - The chromatographic response resembles a typical fuel pattern.

**Table 1**  
**Summary of Detected Soil Sample Analytical Results**

**Former Wood Crib Assessment Report**  
**General Electric Company, Nikiski, Alaska**

Location ID: Sample Depth(Feet): Date Collected:	Migration to Groundwater	Direct Contact	Units	WC-10-S 0 - 2 06/03/15	WC-10-S 9 - 11 06/03/15	WC-10-S 13 - 15 06/03/15
<b>Detected PCBs</b>						
Aroclor-1016	--	1	mg/kg	0.012 U	0.012 U	0.012 U
Aroclor-1254	--	1	mg/kg	0.012 U	0.012 U	0.012 U
Aroclor-1260	--	1	mg/kg	0.012 U	0.012 U	0.012 U
<b>Detected Volatile Organics</b>						
m-Xylene & p-Xylene	63	20,300	mg/kg	0.0099 JB	0.012 JB	0.053 JB
Ethylbenzene	6.9	10,100	mg/kg	0.0095 JB	0.011 JB	0.021 JB
Tetrachloroethene (PCE)	0.024	15	mg/kg	0.0091 U	0.0095 U	0.0094 U
Trichloroethene (TCE)	0.02	21	mg/kg	0.0056 J	0.0056 U	0.0055 U
Xylenes (o)	63	20,300	mg/kg	0.0069 JB	0.007 JB	0.03 JB
Xylenes (total)	63	20,300	mg/kg	0.017 JB	0.019 JB	0.083 B
<b>Detected Gasoline Range Organics</b>						
GRO (C6-C10)	300	1,400	mg/kg	6.6 U	6.8 U	6.8 U
<b>Detected Diesel Range Organics</b>						
DRO (C10-C25)	250	10,250	mg/kg	44 Y	230 Y	28 Y

Notes:

- Exceeds Migration to GW SCL
- B - Analyte was also detected in the associated method blank.
- J - Indicates an estimated value.
- [ ] - data is the result of a blind field duplicate sample analysis
- U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- U\* - The compound was analyzed for but not detected. The associated value is the compound quantitation limit. RPD of the LCS and LCSD exceeds the control limits.
- Y - The chromatographic response resembles a typical fuel pattern.

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**Figures**

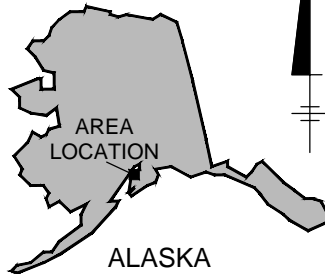
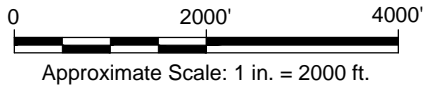


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**PROJECT  
LOCATION**

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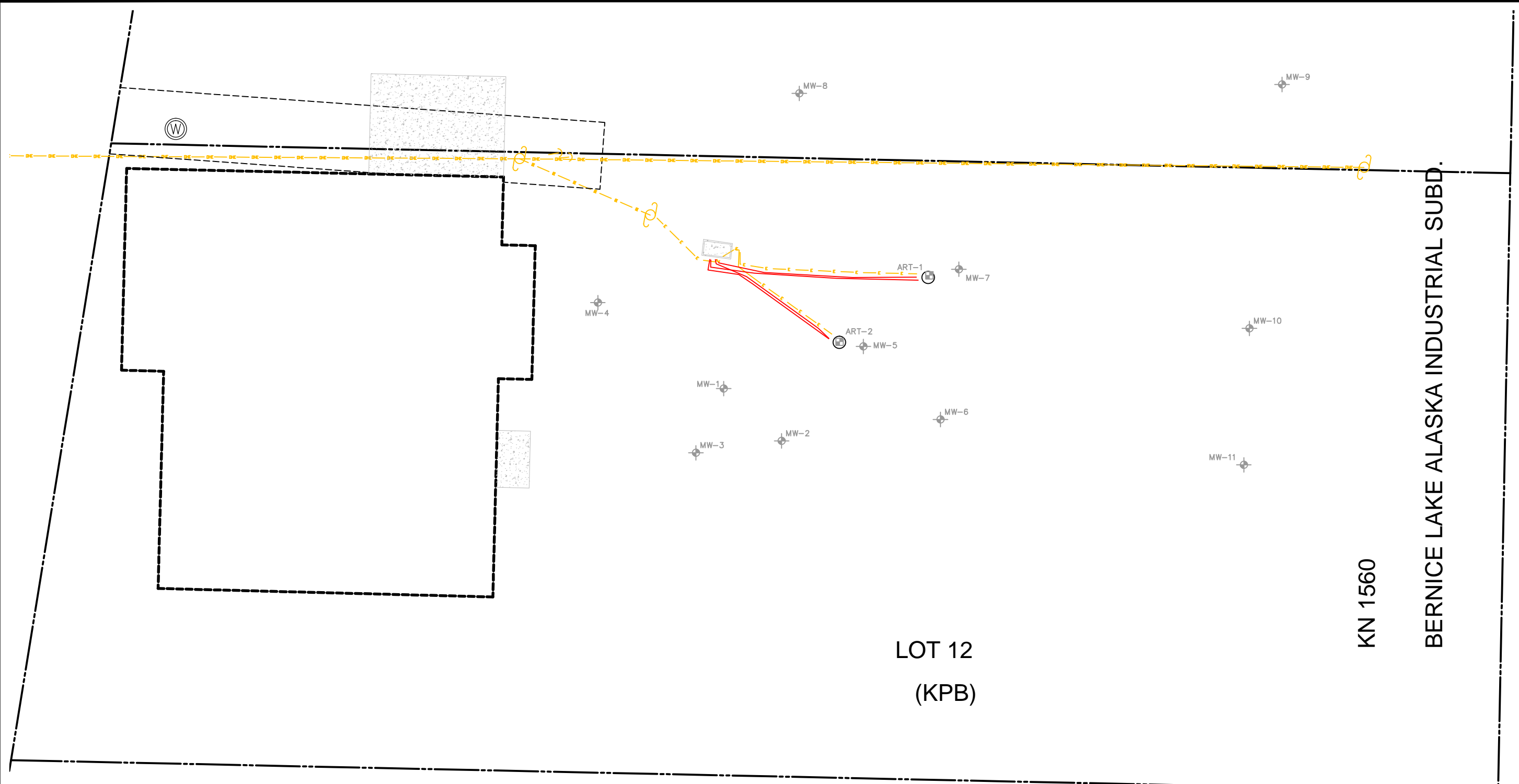
GENERAL ELECTRIC COMPANY  
FORMER MACHINE SHOP  
NIKISKI, ALASKA  
**FORMER WOOD CRIB ASSESSMENT REPORT**

**SITE LOCATION MAP**



FIGURE  
**1**

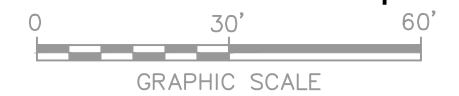
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- LEGEND:**
- GROUNDWATER MONITORING WELL
  - WATER SUPPLY WELL
  - ART TREATMENT WELL
  - POWER POLE
  - PARCEL BOUNDARY
  - LOCATION OF BUILDING REMOVED IN OCTOBER 2014
  - OVERHEAD ELECTRIC
  - TRENCH PATH

- NOTES:**
1. BASE MAP FEATURES SURVEY BY MCLANE CONSULTING, INC., 6/25/2014.
  2. ALL LOCATIONS ARE APPROXIMATE.

(WADE OILFIELD)  
LOT 13



GENERAL ELECTRIC COMPANY  
FORMER MACHINE SHOP  
NIKISKI, ALASKA  
**FORMER WOOD CRIB ASSESSMENT REPORT**

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**SITE PLAN**

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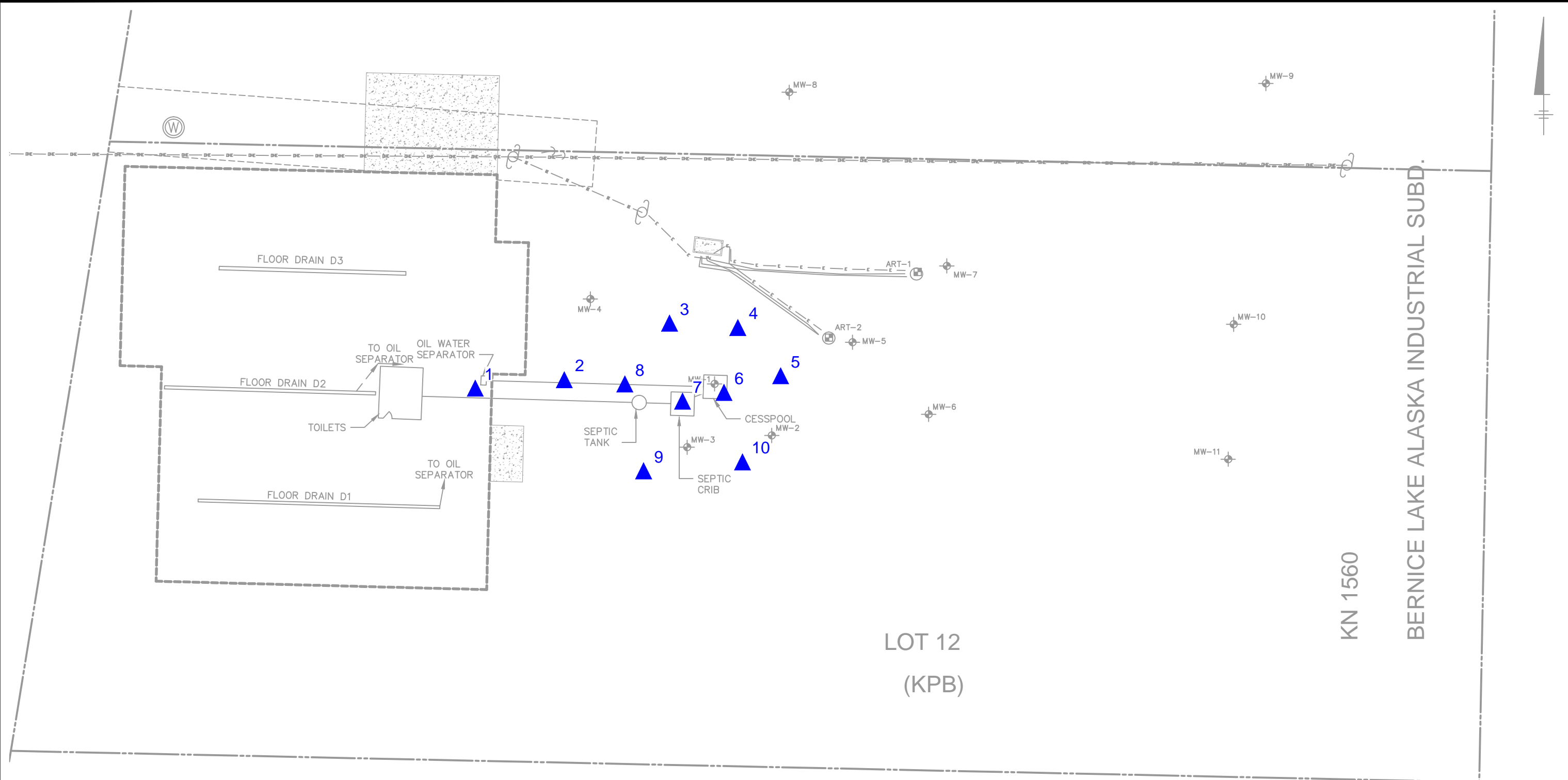


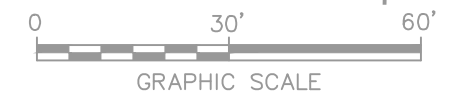
FIGURE  
**2**

CITY: SYRACUSE, NY DIV/GRP: EBC-IMDV DB/ID: L POSENAUER PM: M PELTON LVR: (Opt) ON=OFF=REF V:\ENVCAD\SYRACUSE\ACT\0003125511502\00002\DWG\FWCA\31255B02-03-04.dwg LAYOUT: 3 SAV/ED: 8/25/2015 4:30 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: PLOTSTYLETABLE: PLOT: 8/27/2015 10:48 AM BY: POSENAUER, LISA



- LEGEND:**
- ▲ SOIL BORING LOCATIONS
  - GROUNDWATER MONITORING WELL
  - WATER SUPPLY WELL
  - ART TREATMENT WELL
  - POWER POLE
  - PARCEL BOUNDARY
  - LOCATION OF BUILDING REMOVED IN OCTOBER 2014
  - OVERHEAD ELECTRIC
  - TRENCH PATH

- NOTES:**
1. BASE MAP FEATURES SURVEY BY MCLANE CONSULTING, INC., 6/25/2014. FLOOR DRAINS BY BECHTEL NATIONAL, JANUARY 1987. FORMER CESSPOOL, SEPTIC TANK AND CRIB, OIL/WATER SEPARATOR, 5-GALLON UST, AND TOILETS BY DAMES & MOORE, 2000.
  2. ALL LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY  
FORMER MACHINE SHOP  
NIKISKI, ALASKA  
**FORMER WOOD CRIB ASSESSMENT REPORT**

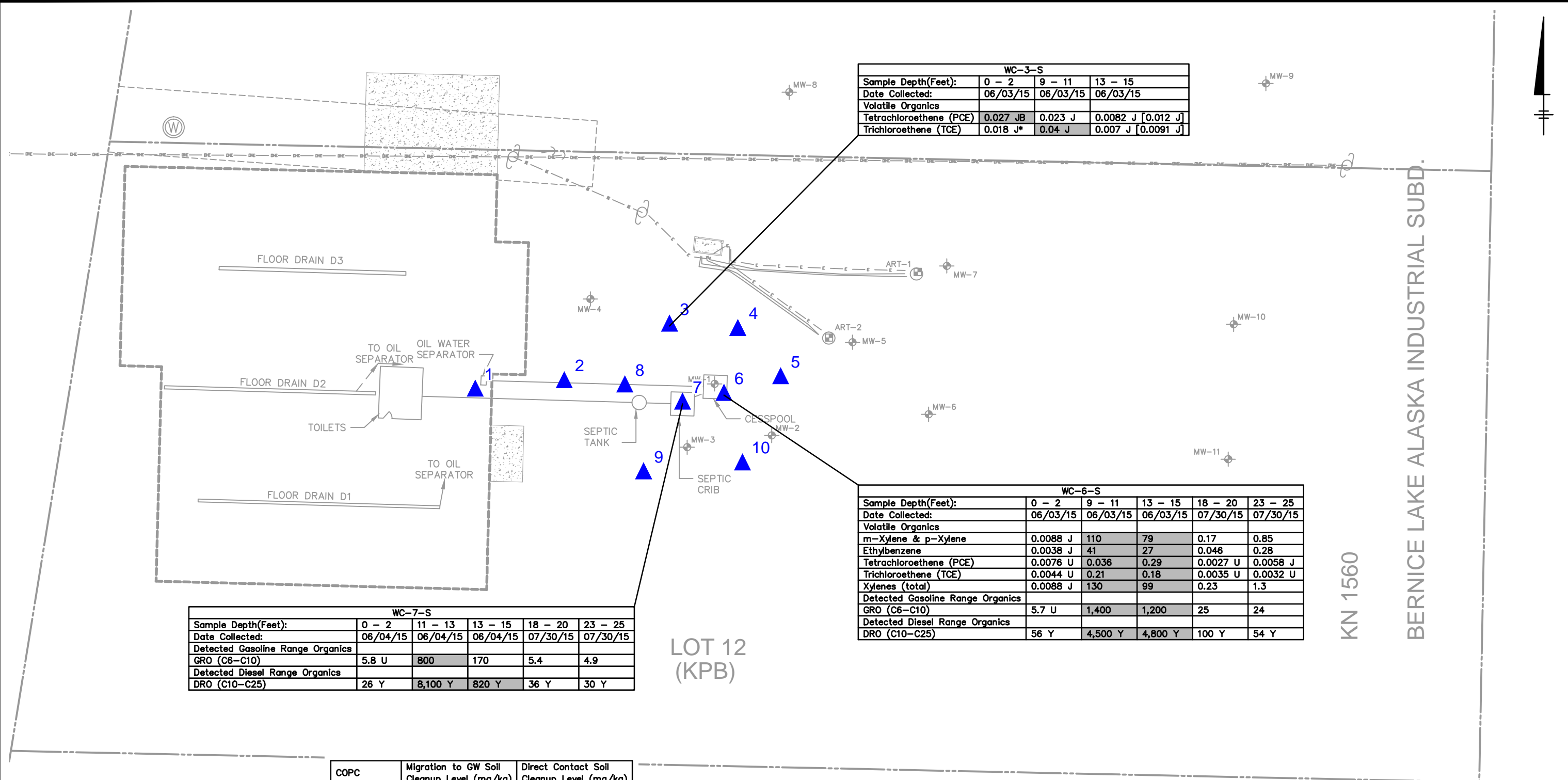
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**SOIL SAMPLE LOCATIONS**

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FIGURE  
3

CITY: SYRACUSE, NY DIV/GRP: EBC-IMDV DB/ID: L POSENAUER PM: M PELTON LVR: (OP) ON= OFF= REF= V: ENCAD: SYRACUSE: ACT: C: B00312551150200002: DWG: FWCAP: 31255: B02-03-04.dwg LAYOUT: 4 SA/VED: 8/27/2015 12:09 PM ACADVER: 19.1S (LMS TECH) PAGES: 10 PLOT: 8/27/2015 12:50 PM BY: POSENAUER, USA XREFS: IMAGES: 31255X00



WC-3-S			
Sample Depth(Feet):	0 - 2	9 - 11	13 - 15
Date Collected:	06/03/15	06/03/15	06/03/15
Volatile Organics			
Tetrachloroethene (PCE)	0.027 JB	0.023 J	0.0082 J [0.012 J]
Trichloroethene (TCE)	0.018 J*	0.04 J	0.007 J [0.0091 J]

WC-6-S					
Sample Depth(Feet):	0 - 2	9 - 11	13 - 15	18 - 20	23 - 25
Date Collected:	06/03/15	06/03/15	06/03/15	07/30/15	07/30/15
Volatile Organics					
m-Xylene & p-Xylene	0.0088 J	110	79	0.17	0.85
Ethylbenzene	0.0038 J	41	27	0.046	0.28
Tetrachloroethene (PCE)	0.0076 U	0.036	0.29	0.0027 U	0.0058 J
Trichloroethene (TCE)	0.0044 U	0.21	0.18	0.0035 U	0.0032 U
Xylenes (total)	0.0088 J	130	99	0.23	1.3
Detected Gasoline Range Organics					
GRO (C6-C10)	5.7 U	1,400	1,200	25	24
Detected Diesel Range Organics					
DRO (C10-C25)	56 Y	4,500 Y	4,800 Y	100 Y	54 Y

WC-7-S					
Sample Depth(Feet):	0 - 2	11 - 13	13 - 15	18 - 20	23 - 25
Date Collected:	06/04/15	06/04/15	06/04/15	07/30/15	07/30/15
Detected Gasoline Range Organics					
GRO (C6-C10)	5.8 U	800	170	5.4	4.9
Detected Diesel Range Organics					
DRO (C10-C25)	26 Y	8,100 Y	820 Y	36 Y	30 Y

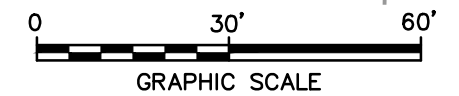
COPC	Migration to GW Soil Cleanup Level (mg/kg)	Direct Contact Soil Cleanup Level (mg/kg)
GRO	300	1,400
DRO	250	10,250
PCE	0.024	15
TCE	0.02	21
Ethylbenzene	6.9	10,100
Total Xylenes	63	20,300
PCBs	NA	1

- LEGEND:**
- SOIL BORING LOCATIONS
  - GROUNDWATER MONITORING WELL
  - WATER SUPPLY WELL
  - ART TREATMENT WELL
  - POWER POLE

- PARCEL BOUNDARY
- LOCATION OF BUILDING REMOVED IN OCTOBER 2014
- OVERHEAD ELECTRIC
- TRENCH PATH

**NOTES:**

- BASE MAP FEATURES SURVEY BY MCLANE CONSULTING, INC., 6/25/2014. FLOOR DRAINS BY BECHTEL NATIONAL, JANUARY 1987. FORMER CESSPOOL, SEPTIC TANK AND CRIB, OIL/WATER SEPARATOR, 5-GALLON UST, AND TOILETS BY DAMES & MOORE, 2000.
- ALL LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY  
 FORMER MACHINE SHOP  
 NIKISKI, ALASKA  
**FORMER WOOD CRIB ASSESSMENT REPORT**

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**SOIL ANALYTICAL RESULTS  
 EXCEEDING ADEC MIGRATION  
 TO GROUNDWATER SCL**

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**Appendix A**

Soil Boring Logs



Infrastructure, environment, facilities

PROJECT NO: 31255  
DESIGNED BY: M. MacDaniel  
DRILLER: Logan Hermans  
DRILLING METHOD: GeoProbe  
SAMPLING METHOD: GeoProbe  
CASING TYPE: -  
SLOT SIZE: -  
GRAVEL PACK: -

CLIENT: OE  
LOCATION: N. Kiski, AK  
DATE DRILLED: 6/4/15  
HOLE DIAMETER: ~3"  
HOLE DEPTH: 15  
WELL DIAMETER: NA  
WELL DEPTH: NA  
CASING STICKUP: NA

WC-1  
BORING/WELL NO:  
PAGE 1 OF 1

Location Map

Well Completion		ELEVATION			NORTHING		EASTING	LITHOLOGY / DESCRIPTION	
Backfill	Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval		Soil Type
				1.2	VAC	* (S1)			0-15' SAND/GRAVEL mixture, trace silt. Small cobbles present. medium to coarse grain sand. brown/orange, damp.  EOB  BO-4 collected @ 4-6' interval  * (S) Indicates a sample was collected
					HA	2			
				1.2		3			
						4			
				1.6		5 (S)			
						6			
				1.5		7			
						8			
				1.2		9			
						10			
				0.9		11			
						12			
				1.1		13			
						14 (S14)			
						15			

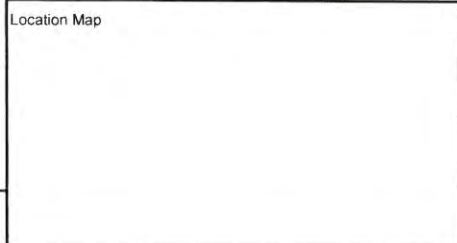


Infrastructure, environment, facilities

PROJECT NO: 31255  
DESIGNED BY: *Michael Daniel*  
DRILLER: *Lo Hermanns*  
DRILLING METHOD: *GP*  
SAMPLING METHOD: *OP*  
CASING TYPE: *-*  
SLOT SIZE: *-*  
GRAVEL PACK: *-*

CLIENT: *GE*  
LOCATION: *N. Kiski, AK*  
DATE DRILLED: *6/4/15*  
HOLE DIAMETER: *3"*  
HOLE DEPTH: *15'*  
WELL DIAMETER: *-*  
WELL DEPTH: *-*  
CASING STICKUP: *-*

*WC-2*  
BORING/WELL NO:  
PAGE 1 OF 1



Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			D	2.1	VAC + HA	1			0-11 SAND / GRAVEL mixture, trace silt. Medium to coarse grain sand. brownish-orange, damp.
			D	0.7	HA	2			
			D	2.3	G	3			
			D	2.2	E	4			
			D	2.3	R	5			
			D	1.3	P.	6			
			D	0.7	O	7			
			D	1.0	B	8			
			D	1.0	E	9			
			D	1.0		10			
			D	1.0		11			
			D	1.0		12			
			D	1.0		13			
			D	1.0		14			
			D	1.0		15			
			D	1.0		16			
			D	1.0		17			
			D	1.0		18			
			D	1.0		19			
			D	1.0		20			
			D	1.0		21			
			D	1.0		22			

\*S Indicates sample was collected



Infrastructure, environment, facilities

PROJECT NO: 31255  
GED BY: m. macDaniel  
DRILLER: L. Hermanns  
DRILLING METHOD: GP  
SAMPLING METHOD: GP  
CASING TYPE: -  
SLOT SIZE: -  
GRAVEL PACK: -

CLIENT: GE  
LOCATION: N. Kiski  
DATE DRILLED: 6/3/15  
HOLE DIAMETER: 3"  
HOLE DEPTH: 15'  
WELL DIAMETER: -  
WELL DEPTH: -  
CASING STICKUP: -

BORINGWELL NO: WWC-3  
PAGE 1 OF 1



Well Completion		ELEVATION			NORTHING		EASTING	LITHOLOGY / DESCRIPTION
Backfill	Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	
	1 1/2"		AD 0.5	NA	NA	1	S1	0-4' SILT. Some SAND some gravel. Cobbles present; damp, trace organics, brown. Fine organics 0-2'
			AD 0.6		11AC to 4'	2		
			AD 1.7			3		
			AD 0.5			4		4-7' SAND; medium grain, some silt, some gravel, damp, brown
			AD 1.1			5		
			AD 0.8		15'	6		
			AD 0.5			7		7-11' SILT; some sand, some gravel grading to more sand at 10', brown, damp.
			AD 0.4		15' - Gen probe to 15'	8		
						9		
						10	S10	
						11		11- SAND and GRAVEL mixture. medium to coarse grain sand. damp, brown
						12		
						13		
						14	S14	
						15		
						16		
						17		*S Indicates sample was collected
						18		
						19		
						20		
						21		
						22		





Infrastructure, environment, facilities

PROJECT NO: 31255  
 DESIGNED BY: M. MacDaniel  
 DRILLER: C. Hermanns  
 DRILLING METHOD: GP  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: N. Kiski  
 DATE DRILLED: 6/3/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

BORING/WELL NO: WC-4  
 PAGE 1 OF 1



Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			0	0.4	VAC + HA	1			0-3 SILT. Some sand some gravel. cobbles present, trace organics, damp brown
			0	0.7	HA	3			
			0	1.0	GEOPROBE	4			3-11 SILT. Some sand some gravel, damp, brown
			0	0.4		6			
			0	1.1		8			
			0	1.0		10			
			M	0.8	E	11			11-12 SILT. Some sand, trace gravel, moist-wet, brown
			W	0.8		12			
			D	0.7		14			12-15 SAND and GRAVEL mixture medium to coarse grain sand, damp, brown
						15			
						16			
						17			
						18			* (S) indicated sample was collected
						19			
						20			
						21			
						22			

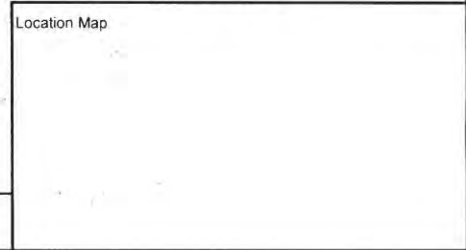


Infrastructure, environment, facilities

PROJECT NO: 21255  
SED BY: M. MacDaniel  
DRILLER: L. Hermanns  
DRILLING METHOD: GP  
SAMPLING METHOD: GP  
CASING TYPE: -  
SLOT SIZE: -  
GRAVEL PACK: -

CLIENT: GE  
LOCATION: N. Kiski, AK  
DATE DRILLED: 6/3/15  
HOLE DIAMETER: 3"  
HOLE DEPTH: 15'  
WELL DIAMETER: -  
WELL DEPTH: -  
CASING STICKUP: -

WC-5  
BORING/WELL NO:  
PAGE 1 OF 1



	ELEVATION	NORTHING	EASTING
--	-----------	----------	---------

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			D	0.5	VAC	1 (S1)			7 and SILT, SAND, trace gravel, trace organics (0-2), damp, brown
			D	0.9	HA	2			
			D	0.5		3			
			D	0.9		4			
			D	0.5		5			7-B SILT, some sand, some gravel grading to wet (7-9'), wet (9-11'), brown
			D	0.9		6			
			D	0.9		7			
			D	0.9		8			
			D	0.9		9			
			W	2.1		10 (S10)			
			W	2.2		11			
			D	3.5		12			
						13			13-15 SAND and GRAVEL mixture, medium to coarse grain sand, damp, brown
						14 (S14)			
						15			
						16			
						17			
						18			* (S) Indicates sample was collected
						19			
						20			
						21			
						22			



Infrastructure, environment, facilities

PROJECT NO: B31255

3ED BY: M. van der Daniel

DRILLER: L. Hermans

DRILLING METHOD: GP

SAMPLING METHOD: GP

CASING TYPE: -

SLOT SIZE: -

GRAVEL PACK: -

CLIENT: GE

LOCATION: Wijk, AK

DATE DRILLED: 6/2/15

HOLE DIAMETER: 3"

HOLE DEPTH: 15

WELL DIAMETER: -

WELL DEPTH: -

CASING STICKUP: -

BORING/WELL NO: WC - 6

PAGE 1 OF 1



Well Completion		ELEVATION			NORTHING		EASTING		LITHOLOGY / DESCRIPTION
Backfill	Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	
			0	0.3	VAL	1	(S1)		0-2 SILT and SAND, some GRAVEL fine to medium sand, trace organics, damp, brown
			M	0.6	HA	2			
			M			3			2-9 SILT and SAND, some gravel fine to medium sand, moist, brown
			M	79.1	G E O P R O B E	4			
			M	398.2		5			
			M	509.9		6			
			M			7			
			M			8			
			M			9			9-11 SAME AS Previous with staining and HClO.
			M	477.2		10	(S10)		
			M			11	(S11)		11-15 SAND and GRAVEL mixture, medium to coarse sand, moist grading to wet. Strong HClO, staining
			W	790.3		12			
						13			
						14	(S14)		
						15			
						16			
						17			
						18			
						19			
						20			
						21			
						22			

\* (S) Indicates sample was collected

PROJECT NO: 21255  
 SED BY: M. Vraet Daniel  
 DRILLER: L Hermanns  
 DRILLING METHOD: GPB  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: Niskiski, AK  
 DATE DRILLED: 6/9/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15'  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

WC-7  
 BORING/WELL NO:  
 PAGE 1 OF 1



	ELEVATION	NORTHING	EASTING
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Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet) *	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			D	0.3	VAC	1			0-8.5 SILT and SAND, some gravel. fine to coarse sand, damp, grading to wet at 6.5 brown
			M	0.9	HA	2			
			M	0.5	GF	3			
			W	62.2	OP	4			grading to wet @ 6.5
			W	117.0	PR	5			8.5-9 wood layer (Crib structure?)
			W	305.6	OB	6			9-9.5 SILT; well sorted, some sand 9.5-10 wood layer.
			W	81.5	E	7			10-15 SILT / SAND / GRAVEL mixture, fine to coarse sand, wet dark staining and strong HCL, Brown → Black.
						8			
						9			
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			* (S) Indicates sample was collected
						18			
						19			
						20			
						21			
						22			

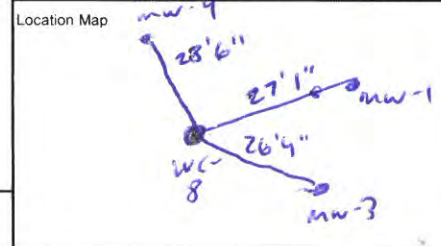


Infrastructure, environment, facilities

PROJECT NO: 31255  
 SED BY: M. Mark Daniel  
 DRILLER: C. Hermanns  
 DRILLING METHOD: CP  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: N. Kiski  
 DATE DRILLED: 6/14/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15'  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

WC- 8  
 BORING/WELL NO: 8  
 PAGE 1 OF 1



Well Completion		ELEVATION			NORTHING		EASTING		LITHOLOGY / DESCRIPTION
Backfill	Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	
			0	0.5	VAC +	1			0-5 SILT/SAND some gravel, fine to <del>coarse</del> coarse sand, damp, brown organic debris (0-2')
			0	0.7	HA	2			
			0	0.5	GEOPROBE	5			5-15 SILT/SAND/GRAVEL mixture fine to medium to coarse sand, cobbles present, damp.
			0	1.5	ROB	10			
			0	2.0	E	14			
						15			
						16			* ⑤ indicates sample was collected
						17			
						18			
						19			
						20			
						21			
						22			

PROJECT NO:

DESIGNED BY:

DRILLER:

DRILLING METHOD:

SAMPLING METHOD:

CASING TYPE:

SLOT SIZE:

GRAVEL PACK:

CLIENT:

LOCATION:

DATE DRILLED:

HOLE DIAMETER:

HOLE DEPTH:

WELL DIAMETER:

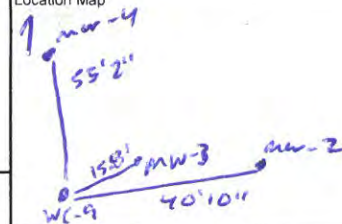
WELL DEPTH:

CASING STICKUP:

BORING/WELL NO: **WC-9**

PAGE 1 OF 1

Location Map



Well Completion		Static Water Level	ELEVATION		NORTHING		EASTING		Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing		Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Interval		
			D	0.0	VAC	1	(S)			0-7 SILT and SAND, some gravel, fine to medium sand, damp, brown trace organics (0-2')
			D	0.0	HA	2				
			D	0.5	G E O P R O B E	3				
			m	0.2		4				
			m	0.0		5				
			m	0.1		6				
			m	0.0		7				
						8				7-9 SILT and SAND and GRAVEL medium to coarse sand, moist, cobbles present.
						9				
						10				
						11	(S)			9-15 SILT and SAND, trace gravel, fine to medium sand, moist brown
						12				
						13				
						14	(S)			
						15				
						16				
						17				
						18				
						19				
						20				
						21				
						22				

#(S) Indicates Sample was collected



Infrastructure, environment, facilities

PROJECT NO: 31255  
 DESIGNED BY: M. MacDonald  
 DRILLER: L. Hermanns  
 DRILLING METHOD: GP  
 SAMPLING METHOD: Geo Probe  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: 10 Nikiski, AK  
 DATE DRILLED: 6/3/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

BORING/WELL NO: Wc-10  
 PAGE 1 OF 1



Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
	Full		D	1.0	VAL	1 (S1)			0-1 SILT and SAND, trace gravel. Fine to medium sand, trace organics, damp, brown, wood debris
			D	0.6	HA	2			
			D	1.2		3			
			D	1.4		4			4-11 SILT and SAND and GRAVEL mixture. Fine to medium grain sand, damp, grading to moist
			D	2.2		5			
			M	4.6		6			
			M	0.9		7			
			M	1.8		8			11-12 SAND and Gravel mixture medium to coarse grain sand, damp, brown
			M	1.0		9			12-15 SILT and SAND and GRAVEL mixture, fine sand, moist, brown
						10 (S10)			
						11			
						12			
						13			
						14 (S14)			
						15			
						16			* (S) Indicates Sample was collected.
						17			
						18			
						19			
						20			
						21			
						22			



Infrastructure, environment, facilities

PROJECT NO: 131255  
 SED BY: M. made Daniel  
 DRILLER: L. Hermanns  
 DRILLING METHOD: GP  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: W. Kissk. Ak  
 DATE DRILLED: 6/3/15 (to 15') 7/30/15 (to 40')  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15'  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

WC - 6  
 BORING/WELL NO:  
 PAGE 1 OF 1

Location Map

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			0	0.3	VAL	1 (S1)			0-2 SILT and SAND, some GRAVEL fine to medium sand, trace organics, damp, brown
			M	0.0	HA	2			2-9 SILT and SAND, some gravel fine to medium sand, moist, brown
			M	79.1	G E O P R O B E	3			
			M	398.2		4			
			M	509.9		5			
			M	477.2		6			
			M	509.9		7			
			M	477.2		8			
			M	509.9		9			
			M	477.2		10 (S10)			9-11 SAME AS Previous with staining and HCCO.
			M	477.2		11			
			M	477.2		12			11-15 SAND and GRAVEL mixture, medium to coarse sand, moist grading to wet strong HCCO, staining
			W	790.3	13				
			M	576.9	14 (S14)				
			M	576.9	15			15-20 19/20 SAND and GRAVEL mixture, medium to coarse sand, moist,	
			M	182.6	16				
			M	182.6	17				
			M	211.3	18				
			M	211.3	19 (S19)				
			M	211.3	20				
			M	88.2	21				
			M	88.2	22				

(S) Indicates sample was collected





Infrastructure, environment, facilities

OBJECT NO: 31255  
 LOGGED BY: m. m. Daniel  
 DRILLER: Tim  
 DRILLING METHOD: GP  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: N. Kiski AK  
 DATE DRILLED: 6/3/15 & 7/30/15 (40')  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 40 (0-15')  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

BORING/WELL NO: WC-6  
 PAGE 2 OF 2

Location Map

Well Completion		ELEVATION				NORTHING		EASTING	LITHOLOGY / DESCRIPTION
Backfill	Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	
			m	86.2	G	23			
			m	54.7	E	24			
			m	11.0	O	25			
			m	17.5	P	26			
			m	20.7	R	27			
			m	23.1	O	28			
			m	17.8	B	29			
			m	9.8	E	30			30-31.5 SAND trace gravel medium to coarse grain. moist, dark brown.
			m	17.9		31			31.5-35 SAND and GRAVEL mixture; medium to coarse grain sand, moist, dark brown.
			m	8.7		32			
			m	7.6		33			
			m			34			
			m			35			
			m			36			35-36 SAND trace Gravel well sorted, fine to coarse grain, moist, Brown/Black
			m			37			
			m			38			37-40 SAND and GRAVEL mixture medium to coarse sand, moist grading to wet Brown/Black
			W			39			
						40			
						41			EOR @ 40'
						42			
						43			
						44			

PROJECT NO: 21255  
 SED BY: m. ruel Daniel  
 DRILLER: L Hermanns  
 DRILLING METHOD: GPF  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: N. Hiski  
 DATE DRILLED: 6/4/15 / 7/30/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 15'  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

BORING/WELL NO: WC-7  
 PAGE 1 OF 1

Location Map

		ELEVATION			NORTHING		EASTING		
Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6')	Depth (feet)	Sample Recovery	Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
		D	0.3	VAC	1				0-8.5 SILT and SAND, some gravel. fine to coarse sand, damp, grading to wet at 6.5 brown
		m	0.9	HA	2				
		m	0.5	G	3				
		w	62.2	E	4				
		w	117.0	O	5				
		w	305.6	P	6				grading to wet @ 6.5
		w	81.5	R	7				
				O	8				8.5-9 wood layer (Crib structure?)
				B	9				9-9.5 silt; well sorted, some sand
				E	10				9.5-10 wood layer.
				L	11				10-15 SILT / SAND / GRAVEL mixture, fine to coarse sand, wet dark staining and strong HCLO, Brown → Black.
					12				
					13				
					14				
					15				15-23 <del>SILT</del> / SAND / GRAVEL mixture
					16				medium to coarse sand, wet staining, HCLO, Brown → Black
					17				* S Indicates sample was collected
					18				
					19				
					20				
					21				
					22				



Infrastructure, environment, facilities

OBJECT NO: 31255  
 LOGGED BY: M. MacDaniel  
 DRILLER: Tim  
 DRILLING METHOD: GP  
 SAMPLING METHOD: GP  
 CASING TYPE: -  
 SLOT SIZE: -  
 GRAVEL PACK: -

CLIENT: GE  
 LOCATION: N. Kiskadee, AK  
 DATE DRILLED: 6/2/15 & 7/30/15  
 HOLE DIAMETER: 3"  
 HOLE DEPTH: 40'  
 WELL DIAMETER: -  
 WELL DEPTH: -  
 CASING STICKUP: -

BORING/WELL NO: WC-7  
 PAGE 2 OF 2



		ELEVATION			NORTHING		EASTING			
Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing									
			n	4.5	G	23				23-26 SAND trace gravel. coarse to medium sand, well sorted, moist, dark brown
			n	36.6	E	24				
			n	10.8	O	25				
			n	5.5	P	26				26-33 SAND and GRAVEL mixture medium to coarse sand, moist, dark brown
			n	170.1	R	27				
			n	7.5	O	28				
			n	5.2	B	29				
			n	18.9	E	30				
			n	6.7		31				
			n	5.0		32				
			n			33				33-35 SAND trace gravel medium to coarse sand, moist, dark brown
			n			34				
			n			35				35-40 SAND and gravel mixture, medium to coarse sand, moist dark brown
			n			36				
			n			37				
			n			38				
			n			39				EOB @ 40'
			n			40				
			n			41				
			n			42				
			n			43				
			n			44				

ARCADIS

**Appendix B**

Field Notes

## 2015 Soil Investigation

6/3/15 GE-N.K.s.K. 31255

Weather: Rain 50F

Personnel: M. MacDonald + STA (GeoTek)

Activity: Soil investigation

8:00 Arrive on site. Conduct HHS meeting, review hazards, sign paper work.

8:20 Begin vac clearance and Hand augering at WC-3.

All locations will be cleared with the vac trailer to 4-5' bgs with intermittent sample collection via hand Auger.

Following vac clearance, borings will be advanced with a geo probe to 15' and samples will be collected as per to work plan. The table on page 25 summarizes sampling conducted on 6/3/15

## 2015 Soil Investigation

6/3/15

GE - N.K.s.K. 31255

Boring ID	Sample Depths/TIME	Comments
<u>WC-3</u>	0-2' bgs / 8:30	
<del>WC-3</del>	9-11' bgs / 9:25	
	13-15' bgs / 9:45	BO-1 collected
<u>WC-4</u>	0-2' bgs / 10:15	
	9-11' bgs / 10:45	
	13-15' bgs / 11:05	
<u>WC-5</u>	0-2' bgs / 11:20	
	9-11' bgs / 11:50	
	13-15' bgs / 12:05	BO-2 collected
<u>WC-10</u>	0-2' bgs / 14:00	
	9-11' bgs / 14:25	
	13-15' bgs / 14:55	
<u>WC-6</u>	0-2' bgs / 15:05	
	9-11' bgs / 15:30	
	13-15' bgs / 16:00	RCHA + SVOCs collected → HOLD at LAB
16:30	Completed Sampling activities. Boring logs completed for each sample location. Packed samples in coolers in appropriate bottles and on ice. Cleaned and secured site.	
17:30	Mobilized off-site	

6/4/15

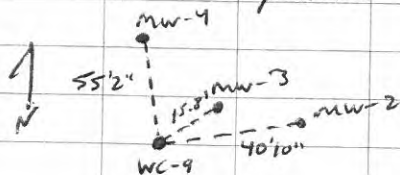
GE N. Kiski

Weather: Rain 50F

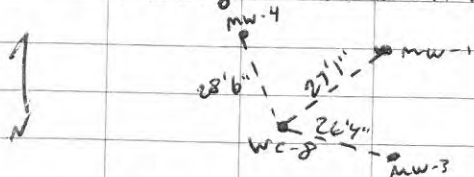
Personnel: M. MacDaniel, Geo Tek

8:00 Arrive on site. Conduct HR  
tailgate meeting, review SOW,  
review hazards, sign paper work.

840 Begin Vac / Geoprobe activities at  
WC-9. WC-9 was off-set due  
to unknown anomalies (GPR data)  
to the position shown below:



WC-8 was also offset due  
to potential septic tank at  
surveyed location:



All other boring location data is  
available via the survey conducted  
by GTA on 5/30/15

6/4/15

GE N. Kiski

Weather: Rain 50F

Personnel: M. MacDaniel, GTA

The following table summarizes sampling  
activities on 6/4/15:

Boring ID	sample depth (logs)	TIME	Comments
WC-9	0-2	9:40	Location offset → BD-3
	9-11	10:00	
	13-15	10:10	
WC-7	0-2	11:00	
	11-13	11:10	
	13-15	11:35	
WC-8	0-2	12:15	
	9-11	12:35	
	13-15	12:55	
WC-2	0-2	13:15	
	4-6	13:40	
	13-15	14:00	
WC-1	0-2	14:30	
	4-6	15:00	BD-4
	13-15	15:20	
1600	Completed Sampling. Cleaned and secured site. TWO Soil drums (55 gal + 3/4 full) on site.		
1700	Mobilized off-site to Anchorage		

M.M.

GE, N. Kiski, Alaska

7/30/15 2015 Soil Investigation (Deep)

Weather: Sunny 65F

Personnel: ARCADIS (M. and David),

GeoTek Alaska (T. &amp; R.)

8:30 Meet with GTA, discuss  
Scope of work, review hazards  
conduct H+S tailgate, complete  
H+S docs.

8:45 Mobilize to site GTA prep  
soil ~~probing~~ equipment.  
Begin probing at WC-7.  
WC-7 samples & summary

ID & Depth	Time	Comments
WC7-11-13	10:50	Re-sample (TCLP)
WC-7-S-18-20	11:25	BD-1 collected
WC-7-S-23-25	11:45	
WC-7-S-28-30	12:20	
WC-7-S-30-32	12:40	
WC-7-S-38-40	13:10	

1330 Break for lunch. Return to  
site @ 1420

1430 Set up Geoprobe @ WC-6  
and begin probing

GE, N. Kiski, Alaska

7/30/15 2015 Soil Investigation (Deep)

Continued.

WC-6 Sample Summary Table:

ID & Depth	TIME	Comments
WC-6-S-9-11	1420	
WC-6-S-18-20	1440	
WC-6-S-23-25	1500	
WC-6-S-28-30	1630	No Recovery - off-set 1'
WC-6-S-33-35	1720	No Recovery - off-set 1'
WC-6-S-38-40	1600	

1520 No Recovery from Interval  
25-30 and 30-35. Boring  
was off-set 1' and the  
missing intervals were re-probed.

1740 Geo probe work complete. GTA  
deans and severs site.  
Two soil drums on site.

1800 ARCADIS and GTA mobilized  
off-site

ARCADIS

**Appendix C**

Laboratory Analytical Results



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

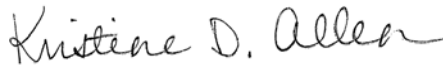
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-50580-1  
Client Project/Site: GE- Nikiski  
Revision: 1

For:  
ARCADIS U.S. Inc  
4915 Prospectus Drive  
Suite F  
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton



Authorized for release by:  
8/10/2015 3:50:35 PM

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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- 2
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- 4
- 5
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# Case Narrative

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Job ID: 580-50580-1

### Laboratory: TestAmerica Seattle

#### Narrative

Report revised 8/10/15 to report the VOCs to the MDL.

#### Job Narrative 580-50580-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/6/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.3° C, 1.9° C and 4.3° C.

#### Receipt Exceptions

The following samples were received at the laboratory without the time written on the sample labels. The time was recorded on the Chain-of- Custody: WC-1-S-4-6 (580-50580-2) and WC-2-S-13-15 (580-50580-6)

The time on the Chain-of-Custody (COC) associated with the following sample does not match the time on the sample label: WC-1-S-13-15 (580-50580-3). The time on the COC was used at login.

#### GC/MS VOA

Method(s) 8260B: Several compounds were detected in the method blank, MB 580-191616/1-A and MB 580-191891/1-A above the method detection limit but below the reporting limit. The values should be considered an estimate and have been "J" qualified.

Method(s) 8260B: The laboratory control sample (LCS) for batch preparation batch 580-191616 and analytical batch 580-191458 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The following samples were re-analyzed due to the likelihood of carryover from a previously analyzed heavily contaminated sample in the original analysis: WC-7-S-0-2 (580-50580-19).

The surrogate 4-Bromofluorobenzene recovery for the following sample was outside control limits: WC-7-S-11-13 (580-50580-20). Evidence of matrix interference is present: see chromatogram. The sample is being re-analyzed at a dilution for target compounds exceeding the calibration range.

Method(s) 8260B: The following samples was diluted to bring the concentration of target analytes within the calibration range: WC-6-S-9-11 (580-50580-17), WC-6-S-13-15 (580-50580-18) and WC-7-S-11-13 (580-50580-20). Elevated reporting limits (RLs) are provided.

Method(s) AK101: The following sample was diluted to bring the concentration of target analytes within the calibration range: WC-6-S-9-11 (580-50580-17). Elevated reporting limits (RLs) are provided.

Method(s) AK101: Surrogate recovery for the following samples was outside control limits: WC-6-S-13-15 (580-50580-18) and WC-7-S-11-13 (580-50580-20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) AK101: Surrogate recovery for the following sample was outside control limits: WC-7-S-13-15 (580-50580-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### GC Semi VOA

Method(s) 8082: The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: WC-7-S-13-15 (580-50580-21) and (MB 580-191601/1-A). Lot# H25604

Method(s) 8082: The following sample(s) contained more than one Aroclor (PCB 1254 and 1260) with insufficient separation to quantify

# Case Narrative

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Job ID: 580-50580-1 (Continued)

### Laboratory: TestAmerica Seattle (Continued)

individually. The PCBs present are quantified as the predominant Aroclor: WC-6-S-9-11 (580-50580-17), WC-6-S-13-15 (580-50580-18) and WC-7-S-11-13 (580-50580-20).

Method(s) AK102 & 103: In analytical batch 580-191824, the following samples from preparation batch 580-191627 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: WC-7-S-13-15 (580-50580-21), WC-9-S-0-2 (580-50580-25), WC-9-S-9-11 (580-50580-26), WC-9-S-13-15 (580-50580-27), WC-10-S-0-2 (580-50580-28), WC-10-S-9-11 (580-50580-29), WC-10-S-13-15 (580-50580-30) and BD-3-S (580-50580-33).

Method(s) AK102 & 103: In analytical batch 580-191696, the following samples from preparation batch 580-191612 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: WC-1-S-0-2 (580-50580-1), WC-3-S-0-2 (580-50580-7), WC-3-S-9-11 (580-50580-8), WC-4-S-0-2 (580-50580-10), WC-4-S-9-11 (580-50580-12), WC-5-S-0-2 (580-50580-14), WC-6-S-0-2 (580-50580-16) and WC-7-S-0-2 (580-50580-19).

Method(s) AK102 & 103: in analytical batch 580-191696, the following samples from preparation batch 580-191612 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was a complex mixture of both earlier and later hydrocarbon fuel envelopes than the typical diesel fuel pattern used by the laboratory for quantitative purposes: WC-6-S-9-11 (580-50580-17), WC-6-S-13-15 (580-50580-18) and WC-7-S-11-13 (580-50580-20).

No additional analytical or quality issues were noted, other than those described above or 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.

# Definitions/Glossary

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Qualifiers

### GC/MS VOA

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

### GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

### GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.
P	The %RPD between the primary and confirmation column/detector is >40%. The higher value has been reported

### General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-0-2**

**Lab Sample ID: 580-50580-1**

**Date Collected: 06/04/15 14:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/13/15 18:10	1
Percent Moisture	4.6		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-0-2**

**Lab Sample ID: 580-50580-1**

Date Collected: 06/04/15 14:30

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 95.4

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	6.6	J B *	44	2.2	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1
m-Xylene & p-Xylene	19	J B *	44	3.3	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1
o-Xylene	25	J *	44	3.3	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1
Tetrachloroethene (PCE)	17	J B	22	5.9	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1
Trichloroethene (TCE)	7.9	J *	27	3.4	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1
Xylenes, Total	44	B *	44	3.3	ug/Kg	☼	06/09/15 11:45	06/10/15 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/09/15 11:45	06/10/15 06:48	1
Dibromofluoromethane (Surr)	98		75 - 132	06/09/15 11:45	06/10/15 06:48	1
1,2-Dichloroethane-d4 (Surr)	94		71 - 136	06/09/15 11:45	06/10/15 06:48	1
Toluene-d8 (Surr)	100		80 - 120	06/09/15 11:45	06/10/15 06:48	1
Trifluorotoluene (Surr)	96		65 - 140	06/09/15 11:45	06/10/15 06:48	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.4		mg/Kg	☼	06/09/15 14:09	06/09/15 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	104		50 - 150	06/09/15 14:09	06/09/15 23:51	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/09/15 14:09	06/09/15 23:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		45 - 135	06/09/15 09:37	06/12/15 16:01	1
DCB Decachlorobiphenyl	96		50 - 140	06/09/15 09:37	06/12/15 16:01	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	20	Y	20		mg/Kg	☼	06/09/15 10:58	06/10/15 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	06/09/15 10:58	06/10/15 08:06	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-4-6**

**Lab Sample ID: 580-50580-2**

**Date Collected: 06/04/15 15:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/13/15 18:10	1
Percent Moisture	5.1		0.10		%			06/13/15 18:10	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-4-6**

**Lab Sample ID: 580-50580-2**

Date Collected: 06/04/15 15:00

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 94.9

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	4.0	J B *	49	2.4	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1
m-Xylene & p-Xylene	10	J B *	49	3.7	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1
o-Xylene	14	J *	49	3.7	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1
Tetrachloroethene (PCE)	14	J B	24	6.5	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1
Trichloroethene (TCE)	7.7	J *	29	3.8	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1
Xylenes, Total	24	J B *	49	3.7	ug/Kg	☼	06/09/15 11:45	06/10/15 07:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/09/15 11:45	06/10/15 07:20	1
Dibromofluoromethane (Surr)	99		75 - 132	06/09/15 11:45	06/10/15 07:20	1
1,2-Dichloroethane-d4 (Surr)	96		71 - 136	06/09/15 11:45	06/10/15 07:20	1
Toluene-d8 (Surr)	100		80 - 120	06/09/15 11:45	06/10/15 07:20	1
Trifluorotoluene (Surr)	96		65 - 140	06/09/15 11:45	06/10/15 07:20	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.9		mg/Kg	☼	06/09/15 14:09	06/10/15 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	111		50 - 150	06/09/15 14:09	06/10/15 00:22	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/09/15 14:09	06/10/15 00:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		45 - 135	06/09/15 09:37	06/12/15 16:51	1
DCB Decachlorobiphenyl	94		50 - 140	06/09/15 09:37	06/12/15 16:51	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg	☼	06/09/15 10:58	06/10/15 08:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	06/09/15 10:58	06/10/15 08:54	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-13-15**

**Lab Sample ID: 580-50580-3**

**Date Collected: 06/04/15 15:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/13/15 18:10	1
Percent Moisture	4.9		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-13-15**

**Lab Sample ID: 580-50580-3**

**Date Collected: 06/04/15 15:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.1**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	*	47	2.4	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1
m-Xylene & p-Xylene	ND	*	47	3.5	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1
o-Xylene	ND	*	47	3.5	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1
Tetrachloroethene (PCE)	ND		24	6.3	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1
Trichloroethene (TCE)	ND	*	28	3.7	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1
Xylenes, Total	ND	*	47	3.5	ug/Kg	☼	06/09/15 11:45	06/16/15 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/09/15 11:45	06/16/15 15:18	1
Dibromofluoromethane (Surr)	93		75 - 132	06/09/15 11:45	06/16/15 15:18	1
1,2-Dichloroethane-d4 (Surr)	88		71 - 136	06/09/15 11:45	06/16/15 15:18	1
Toluene-d8 (Surr)	103		80 - 120	06/09/15 11:45	06/16/15 15:18	1
Trifluorotoluene (Surr)	96		65 - 140	06/09/15 11:45	06/16/15 15:18	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.7		mg/Kg	☼	06/09/15 14:09	06/10/15 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	111		50 - 150	06/09/15 14:09	06/10/15 00:53	1
4-Bromofluorobenzene (Surr)	96		50 - 150	06/09/15 14:09	06/10/15 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		45 - 135	06/09/15 09:37	06/12/15 17:07	1
DCB Decachlorobiphenyl	91		50 - 140	06/09/15 09:37	06/12/15 17:07	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg	☼	06/09/15 10:58	06/10/15 09:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	06/09/15 10:58	06/10/15 09:10	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-0-2**

**Lab Sample ID: 580-50580-4**

**Date Collected: 06/04/15 13:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/13/15 18:10	1
Percent Moisture	4.6		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-0-2**

**Lab Sample ID: 580-50580-4**

**Date Collected: 06/04/15 13:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.4**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	*	48	2.4	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1
m-Xylene & p-Xylene	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1
o-Xylene	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1
Tetrachloroethene (PCE)	ND		24	6.3	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1
Trichloroethene (TCE)	ND	*	29	3.7	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1
Xylenes, Total	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 120	06/09/15 11:45	06/16/15 15:49	1
Dibromofluoromethane (Surr)	89		75 - 132	06/09/15 11:45	06/16/15 15:49	1
1,2-Dichloroethane-d4 (Surr)	90		71 - 136	06/09/15 11:45	06/16/15 15:49	1
Toluene-d8 (Surr)	102		80 - 120	06/09/15 11:45	06/16/15 15:49	1
Trifluorotoluene (Surr)	133		65 - 140	06/09/15 11:45	06/16/15 15:49	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.8		mg/Kg	☼	06/09/15 14:09	06/10/15 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150	06/09/15 14:09	06/10/15 01:24	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/10/15 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		45 - 135	06/09/15 09:37	06/12/15 17:24	1
DCB Decachlorobiphenyl	97		50 - 140	06/09/15 09:37	06/12/15 17:24	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		19		mg/Kg	☼	06/09/15 10:58	06/10/15 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	06/09/15 10:58	06/10/15 09:26	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-4-6**

**Lab Sample ID: 580-50580-5**

**Date Collected: 06/04/15 13:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			06/13/15 18:10	1
Percent Moisture	6.2		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-4-6**

**Lab Sample ID: 580-50580-5**

**Date Collected: 06/04/15 13:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 93.8**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	*	44	2.2	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1
m-Xylene & p-Xylene	ND	*	44	3.3	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1
o-Xylene	ND	*	44	3.3	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1
Tetrachloroethene (PCE)	ND		22	5.8	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1
Trichloroethene (TCE)	ND	*	26	3.4	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1
Xylenes, Total	ND	*	44	3.3	ug/Kg	☼	06/09/15 11:45	06/16/15 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	06/09/15 11:45	06/16/15 16:21	1
Dibromofluoromethane (Surr)	95		75 - 132	06/09/15 11:45	06/16/15 16:21	1
1,2-Dichloroethane-d4 (Surr)	93		71 - 136	06/09/15 11:45	06/16/15 16:21	1
Toluene-d8 (Surr)	101		80 - 120	06/09/15 11:45	06/16/15 16:21	1
Trifluorotoluene (Surr)	91		65 - 140	06/09/15 11:45	06/16/15 16:21	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.4		mg/Kg	☼	06/09/15 14:09	06/10/15 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	113		50 - 150	06/09/15 14:09	06/10/15 01:55	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/09/15 14:09	06/10/15 01:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 135	06/09/15 09:37	06/12/15 17:41	1
DCB Decachlorobiphenyl	88		50 - 140	06/09/15 09:37	06/12/15 17:41	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg	☼	06/09/15 10:58	06/10/15 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	71		50 - 150	06/09/15 10:58	06/10/15 09:43	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-13-15**

**Lab Sample ID: 580-50580-6**

**Date Collected: 06/04/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			06/13/15 18:10	1
Percent Moisture	5.5		0.10		%			06/13/15 18:10	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-13-15**

**Lab Sample ID: 580-50580-6**

**Date Collected: 06/04/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 94.5**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	*	48	2.4	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1
m-Xylene & p-Xylene	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1
o-Xylene	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1
Tetrachloroethene (PCE)	ND		24	6.4	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1
Trichloroethene (TCE)	ND	*	29	3.7	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1
Xylenes, Total	ND	*	48	3.6	ug/Kg	☼	06/09/15 11:45	06/16/15 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/09/15 11:45	06/16/15 16:52	1
Dibromofluoromethane (Surr)	89		75 - 132	06/09/15 11:45	06/16/15 16:52	1
1,2-Dichloroethane-d4 (Surr)	88		71 - 136	06/09/15 11:45	06/16/15 16:52	1
Toluene-d8 (Surr)	103		80 - 120	06/09/15 11:45	06/16/15 16:52	1
Trifluorotoluene (Surr)	109		65 - 140	06/09/15 11:45	06/16/15 16:52	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.8		mg/Kg	☼	06/09/15 14:09	06/10/15 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		50 - 150	06/09/15 14:09	06/10/15 02:26	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/10/15 02:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 135	06/09/15 09:37	06/12/15 18:31	1
DCB Decachlorobiphenyl	99		50 - 140	06/09/15 09:37	06/12/15 18:31	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		21		mg/Kg	☼	06/09/15 10:58	06/10/15 10:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	06/09/15 10:58	06/10/15 10:15	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-0-2**

**Lab Sample ID: 580-50580-7**

**Date Collected: 06/03/15 08:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78		0.10		%			06/13/15 18:10	1
Percent Moisture	22		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-0-2**

**Lab Sample ID: 580-50580-7**

Date Collected: 06/03/15 08:30

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 77.9

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.6	J B *	63	3.2	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1
m-Xylene & p-Xylene	6.5	J B *	63	4.8	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1
o-Xylene	ND	*	63	4.8	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1
Tetrachloroethene (PCE)	27	J B	32	8.4	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1
Trichloroethene (TCE)	18	J *	38	4.9	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1
Xylenes, Total	6.5	J B *	63	4.8	ug/Kg	☼	06/09/15 11:45	06/12/15 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/09/15 11:45	06/12/15 19:29	1
Dibromofluoromethane (Surr)	99		75 - 132	06/09/15 11:45	06/12/15 19:29	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/09/15 11:45	06/12/15 19:29	1
Toluene-d8 (Surr)	101		80 - 120	06/09/15 11:45	06/12/15 19:29	1
Trifluorotoluene (Surr)	109		65 - 140	06/09/15 11:45	06/12/15 19:29	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.3		mg/Kg	☼	06/09/15 14:09	06/10/15 02:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	121		50 - 150	06/09/15 14:09	06/10/15 02:57	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/10/15 02:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		45 - 135	06/09/15 09:37	06/12/15 18:48	1
DCB Decachlorobiphenyl	93		50 - 140	06/09/15 09:37	06/12/15 18:48	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	31	Y	25		mg/Kg	☼	06/09/15 10:58	06/10/15 10:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	06/09/15 10:58	06/10/15 10:31	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-9-11**

**Lab Sample ID: 580-50580-8**

**Date Collected: 06/03/15 09:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74		0.10		%			06/13/15 18:10	1
Percent Moisture	26		0.10		%			06/13/15 18:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-9-11**

**Lab Sample ID: 580-50580-8**

Date Collected: 06/03/15 09:25

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 74.1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.9	J	69	3.4	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1
m-Xylene & p-Xylene	36	J	69	5.2	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1
o-Xylene	38	J	69	5.2	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1
Tetrachloroethene (PCE)	23	J	34	9.1	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1
Trichloroethene (TCE)	40	J	41	5.3	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1
Xylenes, Total	74		69	5.2	ug/Kg	☼	06/10/15 12:04	06/10/15 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/10/15 12:04	06/10/15 18:17	1
Dibromofluoromethane (Surr)	100		75 - 132	06/10/15 12:04	06/10/15 18:17	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/10/15 18:17	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/10/15 18:17	1
Trifluorotoluene (Surr)	106		65 - 140	06/10/15 12:04	06/10/15 18:17	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.9		mg/Kg	☼	06/09/15 14:09	06/10/15 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	115		50 - 150	06/09/15 14:09	06/10/15 03:58	1
4-Bromofluorobenzene (Surr)	91		50 - 150	06/09/15 14:09	06/10/15 03:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1221	ND		0.015		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1232	ND		0.015		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1248	ND		0.015		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 135	06/09/15 09:37	06/12/15 19:04	1
DCB Decachlorobiphenyl	80		50 - 140	06/09/15 09:37	06/12/15 19:04	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	62	Y	26		mg/Kg	☼	06/09/15 10:58	06/10/15 10:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	72		50 - 150	06/09/15 10:58	06/10/15 10:47	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-13-15**

**Lab Sample ID: 580-50580-9**

**Date Collected: 06/03/15 09:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/13/15 18:10	1
Percent Moisture	3.8		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-13-15**

**Lab Sample ID: 580-50580-9**

Date Collected: 06/03/15 09:45

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 96.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.0	J	43	2.2	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1
m-Xylene & p-Xylene	5.8	J	43	3.3	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1
o-Xylene	4.8	J	43	3.3	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1
Tetrachloroethene (PCE)	8.2	J	22	5.7	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1
Trichloroethene (TCE)	7.0	J	26	3.4	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1
Xylenes, Total	11	J	43	3.3	ug/Kg	☼	06/10/15 12:04	06/10/15 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/10/15 12:04	06/10/15 23:13	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/10/15 23:13	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/10/15 23:13	1
Toluene-d8 (Surr)	101		80 - 120	06/10/15 12:04	06/10/15 23:13	1
Trifluorotoluene (Surr)	120		65 - 140	06/10/15 12:04	06/10/15 23:13	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.3		mg/Kg	☼	06/09/15 14:09	06/10/15 04:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	119		50 - 150	06/09/15 14:09	06/10/15 04:29	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/09/15 14:09	06/10/15 04:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		45 - 135	06/09/15 09:37	06/12/15 19:21	1
DCB Decachlorobiphenyl	92		50 - 140	06/09/15 09:37	06/12/15 19:21	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		21		mg/Kg	☼	06/09/15 10:58	06/10/15 11:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	06/09/15 10:58	06/10/15 11:04	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-0-2**

**Lab Sample ID: 580-50580-10**

**Date Collected: 06/03/15 10:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			06/13/15 18:10	1
Percent Moisture	21		0.10		%			06/13/15 18:10	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-0-2**

**Lab Sample ID: 580-50580-10**

Date Collected: 06/03/15 10:15

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 79.4

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		62	3.1	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1
<b>m-Xylene &amp; p-Xylene</b>	<b>5.5</b>	<b>J</b>	62	4.7	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1
o-Xylene	ND		62	4.7	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1
Tetrachloroethene (PCE)	ND		31	8.3	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1
Trichloroethene (TCE)	ND		37	4.8	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1
<b>Xylenes, Total</b>	<b>5.5</b>	<b>J</b>	62	4.7	ug/Kg	☼	06/10/15 12:04	06/10/15 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/10/15 23:46	1
Dibromofluoromethane (Surr)	100		75 - 132	06/10/15 12:04	06/10/15 23:46	1
1,2-Dichloroethane-d4 (Surr)	98		71 - 136	06/10/15 12:04	06/10/15 23:46	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/10/15 23:46	1
Trifluorotoluene (Surr)	116		65 - 140	06/10/15 12:04	06/10/15 23:46	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.2		mg/Kg	☼	06/09/15 14:09	06/10/15 05:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150	06/09/15 14:09	06/10/15 05:00	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/09/15 14:09	06/10/15 05:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		45 - 135	06/09/15 09:37	06/12/15 19:37	1
DCB Decachlorobiphenyl	89		50 - 140	06/09/15 09:37	06/12/15 19:37	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>26</b>	<b>Y</b>	24		mg/Kg	☼	06/09/15 10:58	06/10/15 11:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	64		50 - 150	06/09/15 10:58	06/10/15 11:20	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-13-15**

**Lab Sample ID: 580-50580-11**

**Date Collected: 06/03/15 11:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			06/13/15 18:10	1
Percent Moisture	4.5		0.10		%			06/13/15 18:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-13-15**

**Lab Sample ID: 580-50580-11**

Date Collected: 06/03/15 11:05

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 95.5

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	6.4	J	44	2.2	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1
m-Xylene & p-Xylene	16	J	44	3.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1
o-Xylene	7.3	J	44	3.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1
Tetrachloroethene (PCE)	7.1	J	22	5.8	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1
Trichloroethene (TCE)	14	J	26	3.4	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1
Xylenes, Total	23	J	44	3.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/11/15 00:19	1
Dibromofluoromethane (Surr)	97		75 - 132	06/10/15 12:04	06/11/15 00:19	1
1,2-Dichloroethane-d4 (Surr)	98		71 - 136	06/10/15 12:04	06/11/15 00:19	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/11/15 00:19	1
Trifluorotoluene (Surr)	127		65 - 140	06/10/15 12:04	06/11/15 00:19	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.4		mg/Kg	☼	06/09/15 14:09	06/10/15 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150	06/09/15 14:09	06/10/15 05:31	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/10/15 05:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:37	06/12/15 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		45 - 135	06/09/15 09:37	06/12/15 19:54	1
DCB Decachlorobiphenyl	91		50 - 140	06/09/15 09:37	06/12/15 19:54	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg	☼	06/09/15 10:58	06/10/15 11:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150	06/09/15 10:58	06/10/15 11:36	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-9-11**

**Lab Sample ID: 580-50580-12**

**Date Collected: 06/03/15 10:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			06/13/15 18:10	1
Percent Moisture	25		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-9-11**

**Lab Sample ID: 580-50580-12**

Date Collected: 06/03/15 10:45

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 74.8

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		71	3.5	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1
<b>m-Xylene &amp; p-Xylene</b>	<b>6.1</b>	<b>J</b>	71	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1
o-Xylene	ND		71	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1
Tetrachloroethene (PCE)	ND		35	9.4	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1
<b>Trichloroethene (TCE)</b>	<b>8.5</b>	<b>J</b>	43	5.5	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1
<b>Xylenes, Total</b>	<b>6.1</b>	<b>J</b>	71	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/10/15 12:04	06/11/15 00:52	1
Dibromofluoromethane (Surr)	97		75 - 132	06/10/15 12:04	06/11/15 00:52	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/11/15 00:52	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/11/15 00:52	1
Trifluorotoluene (Surr)	127		65 - 140	06/10/15 12:04	06/11/15 00:52	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		7.1		mg/Kg	☼	06/09/15 14:09	06/10/15 06:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	115		50 - 150	06/09/15 14:09	06/10/15 06:02	1
4-Bromofluorobenzene (Surr)	96		50 - 150	06/09/15 14:09	06/10/15 06:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		45 - 135	06/09/15 09:37	06/12/15 20:11	1
DCB Decachlorobiphenyl	84		50 - 140	06/09/15 09:37	06/12/15 20:11	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>53</b>	<b>Y</b>	25		mg/Kg	☼	06/09/15 10:58	06/10/15 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	06/09/15 10:58	06/10/15 11:52	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-13-15**

**Lab Sample ID: 580-50580-13**

**Date Collected: 06/03/15 12:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10		%			06/13/15 18:10	1
Percent Moisture	9.5		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-13-15**

**Lab Sample ID: 580-50580-13**

Date Collected: 06/03/15 12:05

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 90.5

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	38	J	48	2.4	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1
m-Xylene & p-Xylene	140		48	3.6	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1
o-Xylene	7.1	J	48	3.6	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1
Tetrachloroethene (PCE)	ND		24	6.3	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1
Trichloroethene (TCE)	6.4	J	29	3.7	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1
Xylenes, Total	150		48	3.6	ug/Kg	☼	06/10/15 12:04	06/11/15 01:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/10/15 12:04	06/11/15 01:25	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/11/15 01:25	1
1,2-Dichloroethane-d4 (Surr)	103		71 - 136	06/10/15 12:04	06/11/15 01:25	1
Toluene-d8 (Surr)	98		80 - 120	06/10/15 12:04	06/11/15 01:25	1
Trifluorotoluene (Surr)	125		65 - 140	06/10/15 12:04	06/11/15 01:25	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.8		mg/Kg	☼	06/09/15 14:09	06/10/15 06:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	109		50 - 150	06/09/15 14:09	06/10/15 06:33	1
4-Bromofluorobenzene (Surr)	97		50 - 150	06/09/15 14:09	06/10/15 06:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		45 - 135	06/09/15 09:37	06/12/15 20:28	1
DCB Decachlorobiphenyl	91		50 - 140	06/09/15 09:37	06/12/15 20:28	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	52	Y	22		mg/Kg	☼	06/09/15 10:58	06/10/15 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150	06/09/15 10:58	06/10/15 12:08	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-0-2**

**Lab Sample ID: 580-50580-14**

**Date Collected: 06/03/15 11:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	76		0.10		%			06/13/15 18:10	1
Percent Moisture	24		0.10		%			06/13/15 18:10	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-0-2**

**Lab Sample ID: 580-50580-14**

**Date Collected: 06/03/15 11:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 75.5**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		64	3.2	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1
m-Xylene & p-Xylene	ND		64	4.8	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1
o-Xylene	ND		64	4.8	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1
Tetrachloroethene (PCE)	ND		32	8.5	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1
Trichloroethene (TCE)	ND		39	5.0	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1
Xylenes, Total	ND		64	4.8	ug/Kg	☼	06/10/15 12:04	06/11/15 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 120	06/10/15 12:04	06/11/15 01:58	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/11/15 01:58	1
1,2-Dichloroethane-d4 (Surr)	99		71 - 136	06/10/15 12:04	06/11/15 01:58	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/11/15 01:58	1
Trifluorotoluene (Surr)	121		65 - 140	06/10/15 12:04	06/11/15 01:58	1

### Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.4		mg/Kg	☼	06/09/15 14:09	06/10/15 07:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	111		50 - 150	06/09/15 14:09	06/10/15 07:04	1
4-Bromofluorobenzene (Surr)	96		50 - 150	06/09/15 14:09	06/10/15 07:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		45 - 135	06/09/15 09:37	06/12/15 20:44	1
DCB Decachlorobiphenyl	85		50 - 140	06/09/15 09:37	06/12/15 20:44	1

### Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>41</b>	<b>Y</b>	24		mg/Kg	☼	06/09/15 10:58	06/10/15 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150	06/09/15 10:58	06/10/15 12:25	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-9-11**

**Lab Sample ID: 580-50580-15**

**Date Collected: 06/03/15 11:50**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78		0.10		%			06/13/15 18:10	1
Percent Moisture	22		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-9-11**

**Lab Sample ID: 580-50580-15**

Date Collected: 06/03/15 11:50

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 78.0

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		62	3.1	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1
<b>m-Xylene &amp; p-Xylene</b>	<b>5.9</b>	<b>J</b>	62	4.6	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1
o-Xylene	ND		62	4.6	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1
Tetrachloroethene (PCE)	ND		31	8.2	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1
Trichloroethene (TCE)	ND		37	4.8	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1
<b>Xylenes, Total</b>	<b>5.9</b>	<b>J</b>	62	4.6	ug/Kg	☼	06/10/15 12:04	06/11/15 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/10/15 12:04	06/11/15 02:31	1
Dibromofluoromethane (Surr)	102		75 - 132	06/10/15 12:04	06/11/15 02:31	1
1,2-Dichloroethane-d4 (Surr)	105		71 - 136	06/10/15 12:04	06/11/15 02:31	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/11/15 02:31	1
Trifluorotoluene (Surr)	98		65 - 140	06/10/15 12:04	06/11/15 02:31	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.2		mg/Kg	☼	06/09/15 14:09	06/10/15 07:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150	06/09/15 14:09	06/10/15 07:35	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/10/15 07:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		45 - 135	06/09/15 09:37	06/12/15 21:01	1
DCB Decachlorobiphenyl	88		50 - 140	06/09/15 09:37	06/12/15 21:01	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>100</b>	<b>Y</b>	25		mg/Kg	☼	06/09/15 10:58	06/10/15 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	06/09/15 10:58	06/10/15 12:41	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-0-2**

**Lab Sample ID: 580-50580-16**

**Date Collected: 06/03/15 15:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			06/13/15 18:10	1
Percent Moisture	18		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-0-2**

**Lab Sample ID: 580-50580-16**

Date Collected: 06/03/15 15:05

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 82.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.8	J	57	2.9	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1
m-Xylene & p-Xylene	8.8	J	57	4.3	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1
o-Xylene	ND		57	4.3	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1
Tetrachloroethene (PCE)	ND		29	7.6	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1
Trichloroethene (TCE)	ND		34	4.4	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1
Xylenes, Total	8.8	J	57	4.3	ug/Kg	☼	06/10/15 12:04	06/11/15 03:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/10/15 12:04	06/11/15 03:03	1
Dibromofluoromethane (Surr)	102		75 - 132	06/10/15 12:04	06/11/15 03:03	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/11/15 03:03	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/11/15 03:03	1
Trifluorotoluene (Surr)	100		65 - 140	06/10/15 12:04	06/11/15 03:03	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		5.7		mg/Kg	☼	06/09/15 14:09	06/10/15 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150	06/09/15 14:09	06/10/15 08:06	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/09/15 14:09	06/10/15 08:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1221	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1232	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1248	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1
PCB-1260	0.021		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		45 - 135	06/09/15 09:37	06/12/15 21:51	1
DCB Decachlorobiphenyl	85		50 - 140	06/09/15 09:37	06/12/15 21:51	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	56	Y	23		mg/Kg	☼	06/09/15 10:58	06/10/15 13:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	06/09/15 10:58	06/10/15 13:13	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-9-11**

**Lab Sample ID: 580-50580-17**

**Date Collected: 06/03/15 15:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	80		0.10		%			06/13/15 18:10	1
Percent Moisture	20		0.10		%			06/13/15 18:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-9-11**

**Lab Sample ID: 580-50580-17**

Date Collected: 06/03/15 15:30

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 79.8

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene (PCE)	36		31	8.2	ug/Kg	☼	06/10/15 12:04	06/11/15 03:36	1
Trichloroethene (TCE)	210		37	4.8	ug/Kg	☼	06/10/15 12:04	06/11/15 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 120	06/10/15 12:04	06/11/15 03:36	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/11/15 03:36	1
1,2-Dichloroethane-d4 (Surr)	99		71 - 136	06/10/15 12:04	06/11/15 03:36	1
Toluene-d8 (Surr)	97		80 - 120	06/10/15 12:04	06/11/15 03:36	1
Trifluorotoluene (Surr)	101		65 - 140	06/10/15 12:04	06/11/15 03:36	1

### Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	41000		3100	150	ug/Kg	☼	06/10/15 12:04	06/16/15 19:26	1
m-Xylene & p-Xylene	110000		3100	230	ug/Kg	☼	06/10/15 12:04	06/16/15 19:26	1
o-Xylene	22000		3100	230	ug/Kg	☼	06/10/15 12:04	06/16/15 19:26	1
Xylenes, Total	130000		3100	230	ug/Kg	☼	06/10/15 12:04	06/16/15 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/10/15 12:04	06/16/15 19:26	1
Dibromofluoromethane (Surr)	93		75 - 132	06/10/15 12:04	06/16/15 19:26	1
1,2-Dichloroethane-d4 (Surr)	95		71 - 136	06/10/15 12:04	06/16/15 19:26	1
Toluene-d8 (Surr)	104		80 - 120	06/10/15 12:04	06/16/15 19:26	1
Trifluorotoluene (Surr)	95		65 - 140	06/10/15 12:04	06/16/15 19:26	1

### Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	1400		150		mg/Kg	☼	06/09/15 14:09	06/12/15 04:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	119		50 - 150	06/09/15 14:09	06/12/15 04:38	1
4-Bromofluorobenzene (Surr)	120		50 - 150	06/09/15 14:09	06/12/15 04:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1254	0.11		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		45 - 135	06/09/15 09:37	06/12/15 22:08	1
DCB Decachlorobiphenyl	87		50 - 140	06/09/15 09:37	06/12/15 22:08	1

### Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	4500	Y	24		mg/Kg	☼	06/09/15 10:58	06/10/15 13:29	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-9-11**

**Date Collected: 06/03/15 15:30**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-17**

**Matrix: Solid**

**Percent Solids: 79.8**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	<i>101</i>		<i>50 - 150</i>	<i>06/09/15 10:58</i>	<i>06/10/15 13:29</i>	<i>1</i>

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-13-15**

**Lab Sample ID: 580-50580-18**

**Date Collected: 06/03/15 16:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10		%			06/13/15 18:10	1
Percent Moisture	11		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-13-15**

**Lab Sample ID: 580-50580-18**

Date Collected: 06/03/15 16:00

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 88.5

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene (PCE)	290		26	6.8	ug/Kg	☼	06/10/15 12:04	06/11/15 04:09	1
Trichloroethene (TCE)	180		31	4.0	ug/Kg	☼	06/10/15 12:04	06/11/15 04:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120				06/10/15 12:04	06/11/15 04:09	1
Dibromofluoromethane (Surr)	98		75 - 132				06/10/15 12:04	06/11/15 04:09	1
1,2-Dichloroethane-d4 (Surr)	100		71 - 136				06/10/15 12:04	06/11/15 04:09	1
Toluene-d8 (Surr)	99		80 - 120				06/10/15 12:04	06/11/15 04:09	1
Trifluorotoluene (Surr)	118		65 - 140				06/10/15 12:04	06/11/15 04:09	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	27000		2600	130	ug/Kg	☼	06/10/15 12:04	06/16/15 19:57	1
m-Xylene & p-Xylene	79000		2600	190	ug/Kg	☼	06/10/15 12:04	06/16/15 19:57	1
o-Xylene	20000		2600	190	ug/Kg	☼	06/10/15 12:04	06/16/15 19:57	1
Xylenes, Total	99000		2600	190	ug/Kg	☼	06/10/15 12:04	06/16/15 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120				06/10/15 12:04	06/16/15 19:57	1
Dibromofluoromethane (Surr)	90		75 - 132				06/10/15 12:04	06/16/15 19:57	1
1,2-Dichloroethane-d4 (Surr)	93		71 - 136				06/10/15 12:04	06/16/15 19:57	1
Toluene-d8 (Surr)	102		80 - 120				06/10/15 12:04	06/16/15 19:57	1
Trifluorotoluene (Surr)	98		65 - 140				06/10/15 12:04	06/16/15 19:57	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	1200		5.1		mg/Kg	☼	06/09/15 14:09	06/10/15 09:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	113		50 - 150				06/09/15 14:09	06/10/15 09:39	1
4-Bromofluorobenzene (Surr)	674	X	50 - 150				06/09/15 14:09	06/10/15 09:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.022		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1254	0.16		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:37	06/12/15 22:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		45 - 135				06/09/15 09:37	06/12/15 22:25	1
DCB Decachlorobiphenyl	81		50 - 140				06/09/15 09:37	06/12/15 22:25	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	4800	Y	21		mg/Kg	☼	06/09/15 10:58	06/10/15 13:46	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-13-15**

**Date Collected: 06/03/15 16:00**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-18**

**Matrix: Solid**

**Percent Solids: 88.5**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	<i>94</i>		<i>50 - 150</i>	<i>06/09/15 10:58</i>	<i>06/10/15 13:46</i>	<i>1</i>

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-0-2**

**Lab Sample ID: 580-50580-19**

**Date Collected: 06/04/15 11:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81		0.10		%			06/13/15 18:10	1
Percent Moisture	19		0.10		%			06/13/15 18:10	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-0-2**

**Lab Sample ID: 580-50580-19**

**Date Collected: 06/04/15 11:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 81.1**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene (PCE)	ND		29	7.7	ug/Kg	☼	06/10/15 12:04	06/11/15 04:42	1
Trichloroethene (TCE)	ND		35	4.5	ug/Kg	☼	06/10/15 12:04	06/11/15 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/10/15 12:04	06/11/15 04:42	1
Dibromofluoromethane (Surr)	98		75 - 132	06/10/15 12:04	06/11/15 04:42	1
1,2-Dichloroethane-d4 (Surr)	105		71 - 136	06/10/15 12:04	06/11/15 04:42	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/11/15 04:42	1
Trifluorotoluene (Surr)	123		65 - 140	06/10/15 12:04	06/11/15 04:42	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		58	2.9	ug/Kg	☼	06/10/15 12:04	06/16/15 17:23	1
<b>m-Xylene &amp; p-Xylene</b>	<b>4.6</b>	<b>J</b>	58	4.4	ug/Kg	☼	06/10/15 12:04	06/16/15 17:23	1
o-Xylene	ND		58	4.4	ug/Kg	☼	06/10/15 12:04	06/16/15 17:23	1
<b>Xylenes, Total</b>	<b>4.6</b>	<b>J</b>	58	4.4	ug/Kg	☼	06/10/15 12:04	06/16/15 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/16/15 17:23	1
Dibromofluoromethane (Surr)	89		75 - 132	06/10/15 12:04	06/16/15 17:23	1
1,2-Dichloroethane-d4 (Surr)	89		71 - 136	06/10/15 12:04	06/16/15 17:23	1
Toluene-d8 (Surr)	103		80 - 120	06/10/15 12:04	06/16/15 17:23	1
Trifluorotoluene (Surr)	113		65 - 140	06/10/15 12:04	06/16/15 17:23	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		5.8		mg/Kg	☼	06/09/15 14:09	06/12/15 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	110		50 - 150	06/09/15 14:09	06/12/15 04:07	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/09/15 14:09	06/12/15 04:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1221	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1232	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1248	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:37	06/12/15 22:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 135	06/09/15 09:37	06/12/15 22:41	1
DCB Decachlorobiphenyl	86		50 - 140	06/09/15 09:37	06/12/15 22:41	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>26</b>	<b>Y</b>	22		mg/Kg	☼	06/09/15 10:58	06/10/15 14:02	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-0-2**

**Date Collected: 06/04/15 11:00**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-19**

**Matrix: Solid**

**Percent Solids: 81.1**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	75		50 - 150	06/09/15 10:58	06/10/15 14:02	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-11-13**

**Lab Sample ID: 580-50580-20**

**Date Collected: 06/04/15 11:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77		0.10		%			06/13/15 18:10	1
Percent Moisture	23		0.10		%			06/13/15 18:10	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-11-13**

**Lab Sample ID: 580-50580-20**

Date Collected: 06/04/15 11:10

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 77.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	590		68	3.4	ug/Kg	☼	06/10/15 12:04	06/11/15 05:14	1
o-Xylene	3200		68	5.1	ug/Kg	☼	06/10/15 12:04	06/11/15 05:14	1
Tetrachloroethene (PCE)	ND		34	9.0	ug/Kg	☼	06/10/15 12:04	06/11/15 05:14	1
Trichloroethene (TCE)	9.4	J	41	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 05:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	182	X	70 - 120	06/10/15 12:04	06/11/15 05:14	1
Dibromofluoromethane (Surr)	96		75 - 132	06/10/15 12:04	06/11/15 05:14	1
1,2-Dichloroethane-d4 (Surr)	103		71 - 136	06/10/15 12:04	06/11/15 05:14	1
Toluene-d8 (Surr)	96		80 - 120	06/10/15 12:04	06/11/15 05:14	1
Trifluorotoluene (Surr)	128		65 - 140	06/10/15 12:04	06/11/15 05:14	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	10000		680	51	ug/Kg	☼	06/10/15 12:04	06/16/15 20:28	1
Xylenes, Total	13000		680	51	ug/Kg	☼	06/10/15 12:04	06/16/15 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 120	06/10/15 12:04	06/16/15 20:28	1
Dibromofluoromethane (Surr)	92		75 - 132	06/10/15 12:04	06/16/15 20:28	1
1,2-Dichloroethane-d4 (Surr)	93		71 - 136	06/10/15 12:04	06/16/15 20:28	1
Toluene-d8 (Surr)	104		80 - 120	06/10/15 12:04	06/16/15 20:28	1
Trifluorotoluene (Surr)	102		65 - 140	06/10/15 12:04	06/16/15 20:28	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	800		6.8		mg/Kg	☼	06/09/15 14:09	06/10/15 10:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	110		50 - 150	06/09/15 14:09	06/10/15 10:41	1
4-Bromofluorobenzene (Surr)	537	X	50 - 150	06/09/15 14:09	06/10/15 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.017		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1254	0.12		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:37	06/12/15 22:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		45 - 135	06/09/15 09:37	06/12/15 22:58	1
DCB Decachlorobiphenyl	69		50 - 140	06/09/15 09:37	06/12/15 22:58	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	8100	Y	25		mg/Kg	☼	06/09/15 10:58	06/10/15 14:18	1

TestAmerica Seattle



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-11-13**

**Date Collected: 06/04/15 11:10**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-20**

**Matrix: Solid**

**Percent Solids: 77.2**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	97		50 - 150	06/09/15 10:58	06/10/15 14:18	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-13-15**

**Lab Sample ID: 580-50580-21**

**Date Collected: 06/04/15 11:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10		%			06/09/15 13:58	1
Percent Moisture	8.2		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-13-15**

**Lab Sample ID: 580-50580-21**

Date Collected: 06/04/15 11:35

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 91.8

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	150		51	2.6	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1
m-Xylene & p-Xylene	2900		51	3.8	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1
o-Xylene	680		51	3.8	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1
Tetrachloroethene (PCE)	ND		26	6.8	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1
Trichloroethene (TCE)	ND		31	4.0	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1
Xylenes, Total	3600		51	3.8	ug/Kg	☼	06/10/15 12:04	06/11/15 05:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/10/15 12:04	06/11/15 05:47	1
Dibromofluoromethane (Surr)	98		75 - 132	06/10/15 12:04	06/11/15 05:47	1
1,2-Dichloroethane-d4 (Surr)	101		71 - 136	06/10/15 12:04	06/11/15 05:47	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/11/15 05:47	1
Trifluorotoluene (Surr)	114		65 - 140	06/10/15 12:04	06/11/15 05:47	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	170		5.1		mg/Kg	☼	06/10/15 13:27	06/10/15 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	109		50 - 150	06/10/15 13:27	06/10/15 21:15	1
4-Bromofluorobenzene (Surr)	235	X	50 - 150	06/10/15 13:27	06/10/15 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1254	0.041	P	0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72	P	45 - 135	06/09/15 09:55	06/11/15 14:31	1
DCB Decachlorobiphenyl	88	P	50 - 140	06/09/15 09:55	06/11/15 14:31	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	820	Y	21		mg/Kg	☼	06/09/15 13:40	06/12/15 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150	06/09/15 13:40	06/12/15 11:01	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-0-2**

**Lab Sample ID: 580-50580-22**

**Date Collected: 06/04/15 12:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			06/09/15 13:58	1
Percent Moisture	14		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-0-2**

**Lab Sample ID: 580-50580-22**

Date Collected: 06/04/15 12:15

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 85.9

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	31	J	58	2.9	ug/Kg	☼	06/10/15 12:04	06/11/15 06:20	1
o-Xylene	20	J	58	4.4	ug/Kg	☼	06/10/15 12:04	06/11/15 06:20	1
Tetrachloroethene (PCE)	ND		29	7.7	ug/Kg	☼	06/10/15 12:04	06/11/15 06:20	1
Trichloroethene (TCE)	ND		35	4.5	ug/Kg	☼	06/10/15 12:04	06/11/15 06:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/10/15 12:04	06/11/15 06:20	1
Dibromofluoromethane (Surr)	100		75 - 132	06/10/15 12:04	06/11/15 06:20	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/11/15 06:20	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/11/15 06:20	1
Trifluorotoluene (Surr)	117		65 - 140	06/10/15 12:04	06/11/15 06:20	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		58	4.4	ug/Kg	☼	06/10/15 12:04	06/16/15 17:54	1
Xylenes, Total	ND		58	4.4	ug/Kg	☼	06/10/15 12:04	06/16/15 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	06/10/15 12:04	06/16/15 17:54	1
Dibromofluoromethane (Surr)	94		75 - 132	06/10/15 12:04	06/16/15 17:54	1
1,2-Dichloroethane-d4 (Surr)	92		71 - 136	06/10/15 12:04	06/16/15 17:54	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/16/15 17:54	1
Trifluorotoluene (Surr)	87		65 - 140	06/10/15 12:04	06/16/15 17:54	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		5.8		mg/Kg	☼	06/10/15 13:27	06/10/15 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	103		50 - 150	06/10/15 13:27	06/10/15 21:46	1
4-Bromofluorobenzene (Surr)	98		50 - 150	06/10/15 13:27	06/10/15 21:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1221	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1232	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1248	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		45 - 135	06/09/15 09:55	06/10/15 21:44	1
DCB Decachlorobiphenyl	96		50 - 140	06/09/15 09:55	06/10/15 21:44	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		23		mg/Kg	☼	06/09/15 13:40	06/11/15 08:59	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-0-2**

**Date Collected: 06/04/15 12:15**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-22**

**Matrix: Solid**

**Percent Solids: 85.9**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	62		50 - 150	06/09/15 13:40	06/11/15 08:59	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-9-11**

**Lab Sample ID: 580-50580-23**

**Date Collected: 06/04/15 12:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93		0.10		%			06/09/15 13:58	1
Percent Moisture	6.8		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-9-11**

**Lab Sample ID: 580-50580-23**

Date Collected: 06/04/15 12:35

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 93.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	17	J	52	2.6	ug/Kg	☼	06/10/15 12:04	06/11/15 06:52	1
o-Xylene	13	J	52	3.9	ug/Kg	☼	06/10/15 12:04	06/11/15 06:52	1
Tetrachloroethene (PCE)	ND		26	6.9	ug/Kg	☼	06/10/15 12:04	06/11/15 06:52	1
Trichloroethene (TCE)	ND		31	4.0	ug/Kg	☼	06/10/15 12:04	06/11/15 06:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/11/15 06:52	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/11/15 06:52	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/11/15 06:52	1
Toluene-d8 (Surr)	98		80 - 120	06/10/15 12:04	06/11/15 06:52	1
Trifluorotoluene (Surr)	130		65 - 140	06/10/15 12:04	06/11/15 06:52	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	4.3	J	52	3.9	ug/Kg	☼	06/10/15 12:04	06/16/15 18:25	1
Xylenes, Total	4.3	J	52	3.9	ug/Kg	☼	06/10/15 12:04	06/16/15 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/16/15 18:25	1
Dibromofluoromethane (Surr)	89		75 - 132	06/10/15 12:04	06/16/15 18:25	1
1,2-Dichloroethane-d4 (Surr)	90		71 - 136	06/10/15 12:04	06/16/15 18:25	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/16/15 18:25	1
Trifluorotoluene (Surr)	112		65 - 140	06/10/15 12:04	06/16/15 18:25	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		5.2		mg/Kg	☼	06/10/15 13:27	06/10/15 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	107		50 - 150	06/10/15 13:27	06/10/15 22:17	1
4-Bromofluorobenzene (Surr)	97		50 - 150	06/10/15 13:27	06/10/15 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 135	06/09/15 09:55	06/10/15 22:01	1
DCB Decachlorobiphenyl	96		50 - 140	06/09/15 09:55	06/10/15 22:01	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		21		mg/Kg	☼	06/09/15 13:40	06/11/15 09:17	1

TestAmerica Seattle



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-9-11**

**Date Collected: 06/04/15 12:35**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-23**

**Matrix: Solid**

**Percent Solids: 93.2**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	66		50 - 150	06/09/15 13:40	06/11/15 09:17	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-13-15**

**Lab Sample ID: 580-50580-24**

**Date Collected: 06/04/15 12:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			06/09/15 13:58	1
Percent Moisture	6.1		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-13-15**

**Lab Sample ID: 580-50580-24**

Date Collected: 06/04/15 12:55

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 93.9

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	7.9	J	46	2.3	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1
m-Xylene & p-Xylene	28	J	46	3.5	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1
o-Xylene	6.3	J	46	3.5	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1
Tetrachloroethene (PCE)	ND		23	6.1	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1
Trichloroethene (TCE)	ND		28	3.6	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1
Xylenes, Total	34	J	46	3.5	ug/Kg	☼	06/10/15 12:04	06/11/15 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/10/15 12:04	06/11/15 07:25	1
Dibromofluoromethane (Surr)	97		75 - 132	06/10/15 12:04	06/11/15 07:25	1
1,2-Dichloroethane-d4 (Surr)	103		71 - 136	06/10/15 12:04	06/11/15 07:25	1
Toluene-d8 (Surr)	99		80 - 120	06/10/15 12:04	06/11/15 07:25	1
Trifluorotoluene (Surr)	104		65 - 140	06/10/15 12:04	06/11/15 07:25	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.6		mg/Kg	☼	06/10/15 13:27	06/10/15 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150	06/10/15 13:27	06/10/15 22:48	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/10/15 13:27	06/10/15 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		45 - 135	06/09/15 09:55	06/10/15 22:18	1
DCB Decachlorobiphenyl	98		50 - 140	06/09/15 09:55	06/10/15 22:18	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		21		mg/Kg	☼	06/09/15 13:40	06/11/15 09:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	60		50 - 150	06/09/15 13:40	06/11/15 09:35	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-0-2**

**Lab Sample ID: 580-50580-25**

**Date Collected: 06/04/15 09:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10		%			06/09/15 13:58	1
Percent Moisture	15		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-0-2**

**Lab Sample ID: 580-50580-25**

Date Collected: 06/04/15 09:40

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 85.3

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	11	J	55	2.7	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1
m-Xylene & p-Xylene	30	J	55	4.1	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1
o-Xylene	9.1	J	55	4.1	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1
Tetrachloroethene (PCE)	ND		27	7.3	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1
Trichloroethene (TCE)	ND		33	4.2	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1
Xylenes, Total	39	J	55	4.1	ug/Kg	☼	06/10/15 12:04	06/11/15 07:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 120	06/10/15 12:04	06/11/15 07:58	1
Dibromofluoromethane (Surr)	95		75 - 132	06/10/15 12:04	06/11/15 07:58	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136	06/10/15 12:04	06/11/15 07:58	1
Toluene-d8 (Surr)	98		80 - 120	06/10/15 12:04	06/11/15 07:58	1
Trifluorotoluene (Surr)	139		65 - 140	06/10/15 12:04	06/11/15 07:58	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		5.5		mg/Kg	☼	06/10/15 13:27	06/10/15 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	116		50 - 150	06/10/15 13:27	06/10/15 23:19	1
4-Bromofluorobenzene (Surr)	96		50 - 150	06/10/15 13:27	06/10/15 23:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1242	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1254	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1
PCB-1260	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/10/15 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		45 - 135	06/09/15 09:55	06/10/15 23:08	1
DCB Decachlorobiphenyl	98		50 - 140	06/09/15 09:55	06/10/15 23:08	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	40	Y	23		mg/Kg	☼	06/09/15 13:40	06/11/15 09:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	61		50 - 150	06/09/15 13:40	06/11/15 09:53	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-9-11**

**Lab Sample ID: 580-50580-26**

**Date Collected: 06/04/15 10:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	72		0.10		%			06/09/15 13:58	1
Percent Moisture	28		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-9-11**

**Lab Sample ID: 580-50580-26**

Date Collected: 06/04/15 10:00

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 72.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	22	J	70	3.5	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1
m-Xylene & p-Xylene	27	J	70	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1
o-Xylene	8.2	J	70	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1
Tetrachloroethene (PCE)	ND		35	9.3	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1
Trichloroethene (TCE)	ND		42	5.5	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1
Xylenes, Total	35	J	70	5.3	ug/Kg	☼	06/10/15 12:04	06/11/15 08:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 120	06/10/15 12:04	06/11/15 08:31	1
Dibromofluoromethane (Surr)	99		75 - 132	06/10/15 12:04	06/11/15 08:31	1
1,2-Dichloroethane-d4 (Surr)	103		71 - 136	06/10/15 12:04	06/11/15 08:31	1
Toluene-d8 (Surr)	100		80 - 120	06/10/15 12:04	06/11/15 08:31	1
Trifluorotoluene (Surr)	127		65 - 140	06/10/15 12:04	06/11/15 08:31	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		7.0		mg/Kg	☼	06/10/15 13:27	06/10/15 23:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150	06/10/15 13:27	06/10/15 23:50	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/10/15 13:27	06/10/15 23:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		45 - 135	06/09/15 09:55	06/10/15 23:24	1
DCB Decachlorobiphenyl	97		50 - 140	06/09/15 09:55	06/10/15 23:24	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	80	Y	27		mg/Kg	☼	06/09/15 13:40	06/11/15 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	62		50 - 150	06/09/15 13:40	06/11/15 10:11	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-13-15**

**Lab Sample ID: 580-50580-27**

**Date Collected: 06/04/15 10:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			06/09/15 13:58	1
Percent Moisture	21		0.10		%			06/09/15 13:58	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-13-15**

**Lab Sample ID: 580-50580-27**

Date Collected: 06/04/15 10:10

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 78.7

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	29	J F1 B	66	3.3	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1
m-Xylene & p-Xylene	7.1	J F1 B	66	5.0	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1
o-Xylene	ND	F1	66	5.0	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1
Tetrachloroethene (PCE)	ND	F1	33	8.8	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1
Trichloroethene (TCE)	ND	F1	40	5.1	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1
<b>Xylenes, Total</b>	<b>7.1</b>	<b>J B F1</b>	66	5.0	ug/Kg	☼	06/11/15 12:53	06/11/15 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/11/15 12:53	06/11/15 18:32	1
Dibromofluoromethane (Surr)	102		75 - 132	06/11/15 12:53	06/11/15 18:32	1
1,2-Dichloroethane-d4 (Surr)	112		71 - 136	06/11/15 12:53	06/11/15 18:32	1
Toluene-d8 (Surr)	97		80 - 120	06/11/15 12:53	06/11/15 18:32	1
Trifluorotoluene (Surr)	117		65 - 140	06/11/15 12:53	06/11/15 18:32	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.4		mg/Kg	☼	06/10/15 13:27	06/11/15 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150	06/10/15 13:27	06/11/15 00:52	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/10/15 13:27	06/11/15 00:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		45 - 135	06/09/15 09:55	06/10/15 23:41	1
DCB Decachlorobiphenyl	94		50 - 140	06/09/15 09:55	06/10/15 23:41	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	51	Y	25		mg/Kg	☼	06/09/15 13:40	06/11/15 10:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		50 - 150	06/09/15 13:40	06/11/15 10:28	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-0-2**

**Lab Sample ID: 580-50580-28**

**Date Collected: 06/03/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78		0.10		%			06/09/15 13:58	1
Percent Moisture	22		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-0-2**

**Lab Sample ID: 580-50580-28**

**Date Collected: 06/03/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 77.8**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	9.5	J B	68	3.4	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1
m-Xylene & p-Xylene	9.9	J B	68	5.1	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1
o-Xylene	6.9	J B	68	5.1	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1
Tetrachloroethene (PCE)	ND		34	9.1	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1
Trichloroethene (TCE)	5.6	J	41	5.3	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1
Xylenes, Total	17	J B	68	5.1	ug/Kg	☼	06/11/15 12:53	06/11/15 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/11/15 12:53	06/11/15 20:10	1
Dibromofluoromethane (Surr)	103		75 - 132	06/11/15 12:53	06/11/15 20:10	1
1,2-Dichloroethane-d4 (Surr)	114		71 - 136	06/11/15 12:53	06/11/15 20:10	1
Toluene-d8 (Surr)	99		80 - 120	06/11/15 12:53	06/11/15 20:10	1
Trifluorotoluene (Surr)	121		65 - 140	06/11/15 12:53	06/11/15 20:10	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.6		mg/Kg	☼	06/10/15 13:27	06/11/15 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	110		50 - 150	06/10/15 13:27	06/11/15 01:23	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/10/15 13:27	06/11/15 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1221	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1232	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1248	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/10/15 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 135	06/09/15 09:55	06/10/15 23:58	1
DCB Decachlorobiphenyl	93		50 - 140	06/09/15 09:55	06/10/15 23:58	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	44	Y	25		mg/Kg	☼	06/09/15 13:40	06/11/15 11:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	63		50 - 150	06/09/15 13:40	06/11/15 11:04	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-9-11**

**Lab Sample ID: 580-50580-29**

**Date Collected: 06/03/15 14:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			06/09/15 13:58	1
Percent Moisture	21		0.10		%			06/09/15 13:58	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-9-11**

**Lab Sample ID: 580-50580-29**

Date Collected: 06/03/15 14:25

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 78.8

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	11	J B	72	3.6	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1
m-Xylene & p-Xylene	12	J B	72	5.4	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1
o-Xylene	7.0	J B	72	5.4	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1
Tetrachloroethene (PCE)	ND		36	9.5	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1
Trichloroethene (TCE)	ND		43	5.6	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1
Xylenes, Total	19	J B	72	5.4	ug/Kg	☼	06/11/15 12:53	06/11/15 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/11/15 12:53	06/11/15 20:43	1
Dibromofluoromethane (Surr)	102		75 - 132	06/11/15 12:53	06/11/15 20:43	1
1,2-Dichloroethane-d4 (Surr)	107		71 - 136	06/11/15 12:53	06/11/15 20:43	1
Toluene-d8 (Surr)	101		80 - 120	06/11/15 12:53	06/11/15 20:43	1
Trifluorotoluene (Surr)	128		65 - 140	06/11/15 12:53	06/11/15 20:43	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.8		mg/Kg	☼	06/10/15 13:27	06/11/15 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	109		50 - 150	06/10/15 13:27	06/11/15 01:54	1
4-Bromofluorobenzene (Surr)	99		50 - 150	06/10/15 13:27	06/11/15 01:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1221	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1232	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1248	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		45 - 135	06/09/15 09:55	06/11/15 00:14	1
DCB Decachlorobiphenyl	77		50 - 140	06/09/15 09:55	06/11/15 00:14	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	230	Y	25		mg/Kg	☼	06/09/15 13:40	06/11/15 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	64		50 - 150	06/09/15 13:40	06/11/15 11:22	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-13-15**

**Lab Sample ID: 580-50580-30**

**Date Collected: 06/03/15 14:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			06/09/15 13:58	1
Percent Moisture	21		0.10		%			06/09/15 13:58	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-13-15**

**Lab Sample ID: 580-50580-30**

Date Collected: 06/03/15 14:55

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 78.6

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	21	J B	71	3.5	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1
m-Xylene & p-Xylene	53	J B	71	5.3	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1
o-Xylene	30	J B	71	5.3	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1
Tetrachloroethene (PCE)	ND		35	9.4	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1
Trichloroethene (TCE)	ND		42	5.5	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1
Xylenes, Total	83	B	71	5.3	ug/Kg	☼	06/11/15 12:53	06/11/15 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 120	06/11/15 12:53	06/11/15 21:16	1
Dibromofluoromethane (Surr)	97		75 - 132	06/11/15 12:53	06/11/15 21:16	1
1,2-Dichloroethane-d4 (Surr)	104		71 - 136	06/11/15 12:53	06/11/15 21:16	1
Toluene-d8 (Surr)	99		80 - 120	06/11/15 12:53	06/11/15 21:16	1
Trifluorotoluene (Surr)	132		65 - 140	06/11/15 12:53	06/11/15 21:16	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		6.8		mg/Kg	☼	06/10/15 13:27	06/11/15 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150	06/10/15 13:27	06/11/15 02:25	1
4-Bromofluorobenzene (Surr)	96		50 - 150	06/10/15 13:27	06/11/15 02:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1242	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1254	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1
PCB-1260	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 00:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		45 - 135	06/09/15 09:55	06/11/15 00:31	1
DCB Decachlorobiphenyl	98		50 - 140	06/09/15 09:55	06/11/15 00:31	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	28	Y	25		mg/Kg	☼	06/09/15 13:40	06/11/15 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	56		50 - 150	06/09/15 13:40	06/11/15 11:40	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-1-S**  
**Date Collected: 06/03/15 00:01**  
**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-31**  
**Matrix: Solid**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10		%			06/09/15 13:58	1
Percent Moisture	3.1		0.10		%			06/09/15 13:58	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-50580-31**

**Date Collected: 06/03/15 00:01**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 96.9**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.0	J B	47	2.3	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1
m-Xylene & p-Xylene	4.6	J B	47	3.5	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1
o-Xylene	5.2	J B	47	3.5	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1
Tetrachloroethene (PCE)	12	J	23	6.2	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1
Trichloroethene (TCE)	9.1	J	28	3.6	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1
Xylenes, Total	9.8	J B	47	3.5	ug/Kg	☼	06/11/15 12:53	06/11/15 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 120	06/11/15 12:53	06/11/15 21:48	1
Dibromofluoromethane (Surr)	99		75 - 132	06/11/15 12:53	06/11/15 21:48	1
1,2-Dichloroethane-d4 (Surr)	109		71 - 136	06/11/15 12:53	06/11/15 21:48	1
Toluene-d8 (Surr)	99		80 - 120	06/11/15 12:53	06/11/15 21:48	1
Trifluorotoluene (Surr)	133		65 - 140	06/11/15 12:53	06/11/15 21:48	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.4		mg/Kg	☼	06/10/15 13:27	06/11/15 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150	06/10/15 13:27	06/11/15 02:56	1
4-Bromofluorobenzene (Surr)	89		50 - 150	06/10/15 13:27	06/11/15 02:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0097		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1242	ND		0.0097		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1254	ND		0.0097		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1
PCB-1260	ND		0.0097		mg/Kg	☼	06/09/15 09:55	06/11/15 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		45 - 135	06/09/15 09:55	06/11/15 00:47	1
DCB Decachlorobiphenyl	101		50 - 140	06/09/15 09:55	06/11/15 00:47	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg	☼	06/09/15 13:40	06/11/15 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	61		50 - 150	06/09/15 13:40	06/11/15 12:53	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-2-S**  
**Date Collected: 06/03/15 00:01**  
**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-32**  
**Matrix: Solid**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91		0.10		%			06/09/15 13:58	1
Percent Moisture	8.8		0.10		%			06/09/15 13:58	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-2-S**

**Lab Sample ID: 580-50580-32**

Date Collected: 06/03/15 00:01

Matrix: Solid

Date Received: 06/06/15 09:30

Percent Solids: 91.2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	44	J B	51	2.6	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1
m-Xylene & p-Xylene	140	B	51	3.8	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1
o-Xylene	9.4	J B	51	3.8	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1
Tetrachloroethene (PCE)	ND		26	6.8	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1
Trichloroethene (TCE)	6.7	J	31	4.0	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1
Xylenes, Total	150	B	51	3.8	ug/Kg	☼	06/11/15 12:53	06/11/15 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/11/15 12:53	06/11/15 22:21	1
Dibromofluoromethane (Surr)	103		75 - 132	06/11/15 12:53	06/11/15 22:21	1
1,2-Dichloroethane-d4 (Surr)	113		71 - 136	06/11/15 12:53	06/11/15 22:21	1
Toluene-d8 (Surr)	100		80 - 120	06/11/15 12:53	06/11/15 22:21	1
Trifluorotoluene (Surr)	125		65 - 140	06/11/15 12:53	06/11/15 22:21	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.9		mg/Kg	☼	06/10/15 13:27	06/11/15 03:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	117		50 - 150	06/10/15 13:27	06/11/15 03:27	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/10/15 13:27	06/11/15 03:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1221	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1232	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1242	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1248	ND		0.012		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1254	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1
PCB-1260	ND		0.010		mg/Kg	☼	06/09/15 09:55	06/11/15 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		45 - 135	06/09/15 09:55	06/11/15 01:04	1
DCB Decachlorobiphenyl	81		50 - 140	06/09/15 09:55	06/11/15 01:04	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		22		mg/Kg	☼	06/09/15 13:40	06/11/15 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	06/09/15 13:40	06/11/15 13:11	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-3-S**  
**Date Collected: 06/04/15 00:01**  
**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-33**  
**Matrix: Solid**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	73		0.10		%			06/09/15 13:58	1
Percent Moisture	27		0.10		%			06/09/15 13:58	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-3-S**

**Lab Sample ID: 580-50580-33**

**Date Collected: 06/04/15 00:01**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 72.7**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	53	J B	73	3.7	ug/Kg	☼	06/11/15 12:53	06/11/15 22:54	1
m-Xylene & p-Xylene	7.1	J B	73	5.5	ug/Kg	☼	06/11/15 12:53	06/11/15 22:54	1
o-Xylene	ND		73	5.5	ug/Kg	☼	06/11/15 12:53	06/11/15 22:54	1
Tetrachloroethene (PCE)	ND		37	9.7	ug/Kg	☼	06/11/15 12:53	06/11/15 22:54	1
Trichloroethene (TCE)	ND		44	5.7	ug/Kg	☼	06/11/15 12:53	06/11/15 22:54	1
<b>Xylenes, Total</b>	<b>7.1</b>	<b>J B</b>	<b>73</b>	<b>5.5</b>	<b>ug/Kg</b>	<b>☼</b>	<b>06/11/15 12:53</b>	<b>06/11/15 22:54</b>	<b>1</b>

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 120	06/11/15 12:53	06/11/15 22:54	1
Dibromofluoromethane (Surr)	102		75 - 132	06/11/15 12:53	06/11/15 22:54	1
1,2-Dichloroethane-d4 (Surr)	110		71 - 136	06/11/15 12:53	06/11/15 22:54	1
Toluene-d8 (Surr)	98		80 - 120	06/11/15 12:53	06/11/15 22:54	1
Trifluorotoluene (Surr)	106		65 - 140	06/11/15 12:53	06/11/15 22:54	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		7.1		mg/Kg	☼	06/10/15 13:27	06/11/15 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	107		50 - 150	06/10/15 13:27	06/11/15 03:58	1
4-Bromofluorobenzene (Surr)	95		50 - 150	06/10/15 13:27	06/11/15 03:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1221	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1232	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1242	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1248	ND		0.014		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1254	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1
PCB-1260	ND		0.013		mg/Kg	☼	06/09/15 09:55	06/11/15 06:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		45 - 135	06/09/15 09:55	06/11/15 06:06	1
DCB Decachlorobiphenyl	86		50 - 140	06/09/15 09:55	06/11/15 06:06	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>62</b>	<b>Y</b>	<b>27</b>		<b>mg/Kg</b>	<b>☼</b>	<b>06/09/15 13:40</b>	<b>06/11/15 13:29</b>	<b>1</b>

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	64		50 - 150	06/09/15 13:40	06/11/15 13:29	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-4-S**  
**Date Collected: 06/04/15 00:01**  
**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-34**  
**Matrix: Solid**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			06/09/15 13:58	1
Percent Moisture	5.0		0.10		%			06/09/15 13:58	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-4-S**

**Lab Sample ID: 580-50580-34**

**Date Collected: 06/04/15 00:01**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.0**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ethylbenzene</b>	<b>3.7</b>	<b>J B</b>	48	2.4	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1
m-Xylene & p-Xylene	ND		48	3.6	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1
o-Xylene	ND		48	3.6	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1
Tetrachloroethene (PCE)	ND		24	6.4	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1
Trichloroethene (TCE)	ND		29	3.7	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1
Xylenes, Total	ND		48	3.6	ug/Kg	☼	06/11/15 12:53	06/11/15 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 120	06/11/15 12:53	06/11/15 23:27	1
Dibromofluoromethane (Surr)	99		75 - 132	06/11/15 12:53	06/11/15 23:27	1
1,2-Dichloroethane-d4 (Surr)	108		71 - 136	06/11/15 12:53	06/11/15 23:27	1
Toluene-d8 (Surr)	99		80 - 120	06/11/15 12:53	06/11/15 23:27	1
Trifluorotoluene (Surr)	128		65 - 140	06/11/15 12:53	06/11/15 23:27	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.6		mg/Kg	☼	06/10/15 13:27	06/11/15 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	113		50 - 150	06/10/15 13:27	06/11/15 04:28	1
4-Bromofluorobenzene (Surr)	97		50 - 150	06/10/15 13:27	06/11/15 04:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0096		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1221	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1232	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1242	ND		0.0096		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1248	ND		0.011		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1254	ND		0.0096		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1
PCB-1260	ND		0.0096		mg/Kg	☼	06/09/15 09:55	06/11/15 06:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		45 - 135	06/09/15 09:55	06/11/15 06:22	1
DCB Decachlorobiphenyl	101		50 - 140	06/09/15 09:55	06/11/15 06:22	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		21		mg/Kg	☼	06/09/15 13:40	06/11/15 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	06/09/15 13:40	06/11/15 13:47	1

TestAmerica Seattle

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Client Sample ID: Trip Blanks

Date Collected: 06/03/15 00:01

Date Received: 06/06/15 09:30

## Lab Sample ID: 580-50580-35

Matrix: Solid

### Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	3.7	J B	40	2.0	ug/Kg		06/11/15 12:53	06/11/15 17:26	1
m-Xylene & p-Xylene	5.8	J B	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 17:26	1
o-Xylene	3.8	J B	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 17:26	1
Tetrachloroethene (PCE)	ND		20	5.3	ug/Kg		06/11/15 12:53	06/11/15 17:26	1
Trichloroethene (TCE)	ND		24	3.1	ug/Kg		06/11/15 12:53	06/11/15 17:26	1
Xylenes, Total	9.6	J B	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 120	06/11/15 12:53	06/11/15 17:26	1
Dibromofluoromethane (Surr)	101		75 - 132	06/11/15 12:53	06/11/15 17:26	1
1,2-Dichloroethane-d4 (Surr)	104		71 - 136	06/11/15 12:53	06/11/15 17:26	1
Toluene-d8 (Surr)	98		80 - 120	06/11/15 12:53	06/11/15 17:26	1
Trifluorotoluene (Surr)	126		65 - 140	06/11/15 12:53	06/11/15 17:26	1

### Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.3		mg/Kg		06/10/15 13:27	06/10/15 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	116		50 - 150	06/10/15 13:27	06/10/15 20:44	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/10/15 13:27	06/10/15 20:44	1



# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 580-191616/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191458**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191616**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	2.46	J	40	2.0	ug/Kg		06/09/15 11:45	06/09/15 20:57	1
m-Xylene & p-Xylene	4.13	J	40	3.0	ug/Kg		06/09/15 11:45	06/09/15 20:57	1
o-Xylene	ND		40	3.0	ug/Kg		06/09/15 11:45	06/09/15 20:57	1
Tetrachloroethene (PCE)	14.7	J	20	5.3	ug/Kg		06/09/15 11:45	06/09/15 20:57	1
Trichloroethene (TCE)	ND		24	3.1	ug/Kg		06/09/15 11:45	06/09/15 20:57	1
Xylenes, Total	4.13	J	40	3.0	ug/Kg		06/09/15 11:45	06/09/15 20:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 120	06/09/15 11:45	06/09/15 20:57	1
Dibromofluoromethane (Surr)	101		75 - 132	06/09/15 11:45	06/09/15 20:57	1
1,2-Dichloroethane-d4 (Surr)	112		71 - 136	06/09/15 11:45	06/09/15 20:57	1
Toluene-d8 (Surr)	98		80 - 120	06/09/15 11:45	06/09/15 20:57	1
Trifluorotoluene (Surr)	95		65 - 140	06/09/15 11:45	06/09/15 20:57	1

**Lab Sample ID: LCS 580-191616/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191458**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191616**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ethylbenzene	800	1100	*	ug/Kg		138	78 - 126
m-Xylene & p-Xylene	800	1110	*	ug/Kg		139	78 - 126
o-Xylene	800	1160	*	ug/Kg		145	77 - 127
Tetrachloroethene (PCE)	800	1130		ug/Kg		141	56 - 155
Trichloroethene (TCE)	800	1120	*	ug/Kg		140	83 - 124
Xylenes, Total	1600	2270	*	ug/Kg		142	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 120
Dibromofluoromethane (Surr)	101		75 - 132
1,2-Dichloroethane-d4 (Surr)	108		71 - 136
Toluene-d8 (Surr)	98		80 - 120
Trifluorotoluene (Surr)	96		65 - 140

**Lab Sample ID: MB 580-191735/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191793**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191735**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		40	2.0	ug/Kg		06/10/15 12:04	06/10/15 14:08	1
m-Xylene & p-Xylene	ND		40	3.0	ug/Kg		06/10/15 12:04	06/10/15 14:08	1
o-Xylene	ND		40	3.0	ug/Kg		06/10/15 12:04	06/10/15 14:08	1
Tetrachloroethene (PCE)	ND		20	5.3	ug/Kg		06/10/15 12:04	06/10/15 14:08	1
Trichloroethene (TCE)	ND		24	3.1	ug/Kg		06/10/15 12:04	06/10/15 14:08	1
Xylenes, Total	ND		40	3.0	ug/Kg		06/10/15 12:04	06/10/15 14:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 120	06/10/15 12:04	06/10/15 14:08	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-191735/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191793**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191735**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	101		75 - 132	06/10/15 12:04	06/10/15 14:08	1
1,2-Dichloroethane-d4 (Surr)	113		71 - 136	06/10/15 12:04	06/10/15 14:08	1
Toluene-d8 (Surr)	97		80 - 120	06/10/15 12:04	06/10/15 14:08	1
Trifluorotoluene (Surr)	97		65 - 140	06/10/15 12:04	06/10/15 14:08	1

**Lab Sample ID: LCS 580-191735/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191793**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191735**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	800	830		ug/Kg		104	78 - 126
o-Xylene	800	854		ug/Kg		107	77 - 127
Tetrachloroethene (PCE)	800	885		ug/Kg		111	56 - 155
Trichloroethene (TCE)	800	834		ug/Kg		104	83 - 124
Xylenes, Total	1600	1680		ug/Kg		105	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		70 - 120
Dibromofluoromethane (Surr)	99		75 - 132
1,2-Dichloroethane-d4 (Surr)	99		71 - 136
Toluene-d8 (Surr)	102		80 - 120
Trifluorotoluene (Surr)	101		65 - 140

**Lab Sample ID: LCSD 580-191735/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191793**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191735**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Ethylbenzene	800	834		ug/Kg		104	78 - 126	1	23
m-Xylene & p-Xylene	800	830		ug/Kg		104	78 - 126	0	23
o-Xylene	800	856		ug/Kg		107	77 - 127	0	22
Tetrachloroethene (PCE)	800	901		ug/Kg		113	56 - 155	2	27
Trichloroethene (TCE)	800	849		ug/Kg		106	83 - 124	2	17
Xylenes, Total	1600	1690		ug/Kg		105	70 - 130	0	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 120
Dibromofluoromethane (Surr)	100		75 - 132
1,2-Dichloroethane-d4 (Surr)	97		71 - 136
Toluene-d8 (Surr)	100		80 - 120
Trifluorotoluene (Surr)	101		65 - 140

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 580-50580-8 MS**

**Matrix: Solid**

**Analysis Batch: 191793**

**Client Sample ID: WC-3-S-9-11**

**Prep Type: Total/NA**

**Prep Batch: 191735**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	3.9	J	1370	1570		ug/Kg	☼	114	75 - 125
m-Xylene & p-Xylene	36	J	1370	1610		ug/Kg	☼	114	80 - 125
o-Xylene	38	J	1370	1660		ug/Kg	☼	118	75 - 125
Tetrachloroethene (PCE)	23	J	1370	1570		ug/Kg	☼	113	65 - 140
Trichloroethene (TCE)	40	J	1370	1640		ug/Kg	☼	116	75 - 125
Xylenes, Total	74		2750	3270		ug/Kg	☼	116	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		70 - 120
Dibromofluoromethane (Surr)	103		75 - 132
1,2-Dichloroethane-d4 (Surr)	98		71 - 136
Toluene-d8 (Surr)	99		80 - 120
Trifluorotoluene (Surr)	112		65 - 140

**Lab Sample ID: 580-50580-8 MSD**

**Matrix: Solid**

**Analysis Batch: 191793**

**Client Sample ID: WC-3-S-9-11**

**Prep Type: Total/NA**

**Prep Batch: 191735**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Ethylbenzene	3.9	J	1370	1680		ug/Kg	☼	122	75 - 125	6	30
m-Xylene & p-Xylene	36	J	1370	1660		ug/Kg	☼	118	80 - 125	3	30
o-Xylene	38	J	1370	1690		ug/Kg	☼	120	75 - 125	2	30
Tetrachloroethene (PCE)	23	J	1370	1610		ug/Kg	☼	115	65 - 140	2	30
Trichloroethene (TCE)	40	J	1370	1700		ug/Kg	☼	121	75 - 125	4	30
Xylenes, Total	74		2750	3350		ug/Kg	☼	119	70 - 130	2	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 120
Dibromofluoromethane (Surr)	102		75 - 132
1,2-Dichloroethane-d4 (Surr)	100		71 - 136
Toluene-d8 (Surr)	98		80 - 120
Trifluorotoluene (Surr)	129		65 - 140

**Lab Sample ID: MB 580-191891/1-A**

**Matrix: Solid**

**Analysis Batch: 191902**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 191891**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethylbenzene	2.82	J	40	2.0	ug/Kg		06/11/15 12:53	06/11/15 15:47	1
m-Xylene & p-Xylene	5.39	J	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 15:47	1
o-Xylene	3.34	J	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 15:47	1
Tetrachloroethene (PCE)	ND		20	5.3	ug/Kg		06/11/15 12:53	06/11/15 15:47	1
Trichloroethene (TCE)	ND		24	3.1	ug/Kg		06/11/15 12:53	06/11/15 15:47	1
Xylenes, Total	8.73	J	40	3.0	ug/Kg		06/11/15 12:53	06/11/15 15:47	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	102		70 - 120	06/11/15 12:53	06/11/15 15:47	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-191891/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191902**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191891**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	104		75 - 132	06/11/15 12:53	06/11/15 15:47	1
1,2-Dichloroethane-d4 (Surr)	114		71 - 136	06/11/15 12:53	06/11/15 15:47	1
Toluene-d8 (Surr)	98		80 - 120	06/11/15 12:53	06/11/15 15:47	1
Trifluorotoluene (Surr)	97		65 - 140	06/11/15 12:53	06/11/15 15:47	1

**Lab Sample ID: LCS 580-191891/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191902**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191891**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	800	892		ug/Kg		111	78 - 126
o-Xylene	800	914		ug/Kg		114	77 - 127
Tetrachloroethene (PCE)	800	924		ug/Kg		115	56 - 155
Trichloroethene (TCE)	800	908		ug/Kg		113	83 - 124
Xylenes, Total	1600	1810		ug/Kg		113	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 120
Dibromofluoromethane (Surr)	107		75 - 132
1,2-Dichloroethane-d4 (Surr)	111		71 - 136
Toluene-d8 (Surr)	99		80 - 120
Trifluorotoluene (Surr)	97		65 - 140

**Lab Sample ID: LCSD 580-191891/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191902**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191891**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Ethylbenzene	800	882		ug/Kg		110	78 - 126	1	23
m-Xylene & p-Xylene	800	882		ug/Kg		110	78 - 126	1	23
o-Xylene	800	920		ug/Kg		115	77 - 127	1	22
Tetrachloroethene (PCE)	800	971		ug/Kg		121	56 - 155	5	27
Trichloroethene (TCE)	800	929		ug/Kg		116	83 - 124	2	17
Xylenes, Total	1600	1800		ug/Kg		113	70 - 130	0	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		70 - 120
Dibromofluoromethane (Surr)	99		75 - 132
1,2-Dichloroethane-d4 (Surr)	104		71 - 136
Toluene-d8 (Surr)	96		80 - 120
Trifluorotoluene (Surr)	101		65 - 140

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 580-50580-27 MS**

**Matrix: Solid**

**Analysis Batch: 191902**

**Client Sample ID: WC-9-S-13-15**

**Prep Type: Total/NA**

**Prep Batch: 191891**

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	29	J F1 B	1330	2000	F1	ug/Kg	☼	148	75 - 125
m-Xylene & p-Xylene	7.1	J F1 B	1330	1950	F1	ug/Kg	☼	146	80 - 125
o-Xylene	ND	F1	1330	1990	F1	ug/Kg	☼	150	75 - 125
Tetrachloroethene (PCE)	ND	F1	1330	1960	F1	ug/Kg	☼	148	65 - 140
Trichloroethene (TCE)	ND	F1	1330	1980	F1	ug/Kg	☼	150	75 - 125
Xylenes, Total	7.1	J B F1	2650	3940	F1	ug/Kg	☼	148	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		70 - 120
Dibromofluoromethane (Surr)	101		75 - 132
1,2-Dichloroethane-d4 (Surr)	97		71 - 136
Toluene-d8 (Surr)	99		80 - 120
Trifluorotoluene (Surr)	121		65 - 140

**Lab Sample ID: 580-50580-27 MSD**

**Matrix: Solid**

**Analysis Batch: 191902**

**Client Sample ID: WC-9-S-13-15**

**Prep Type: Total/NA**

**Prep Batch: 191891**

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Ethylbenzene	29	J F1 B	1330	1710	F1	ug/Kg	☼	127	75 - 125	16	30
m-Xylene & p-Xylene	7.1	J F1 B	1330	1670		ug/Kg	☼	125	80 - 125	16	30
o-Xylene	ND	F1	1330	1710	F1	ug/Kg	☼	129	75 - 125	15	30
Tetrachloroethene (PCE)	ND	F1	1330	1680		ug/Kg	☼	127	65 - 140	16	30
Trichloroethene (TCE)	ND	F1	1330	1680	F1	ug/Kg	☼	126	75 - 125	17	30
Xylenes, Total	7.1	J B F1	2650	3380		ug/Kg	☼	127	70 - 130	15	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		70 - 120
Dibromofluoromethane (Surr)	103		75 - 132
1,2-Dichloroethane-d4 (Surr)	105		71 - 136
Toluene-d8 (Surr)	100		80 - 120
Trifluorotoluene (Surr)	123		65 - 140

## Method: AK101 - Alaska - Gasoline Range Organics (GC)

**Lab Sample ID: MB 580-191640/1-A**

**Matrix: Solid**

**Analysis Batch: 191669**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 191640**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO) -C6-C10	ND		4.0		mg/Kg		06/09/15 14:09	06/09/15 22:18	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Trifluorotoluene (Surr)	104		50 - 150	06/09/15 14:09	06/09/15 22:18	1
4-Bromofluorobenzene (Surr)	94		50 - 150	06/09/15 14:09	06/09/15 22:18	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

**Lab Sample ID: LCS 580-191640/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191669**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191640**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO) -C6-C10	40.0	39.3		mg/Kg		98	60 - 120
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
Trifluorotoluene (Surr)	101		50 - 150				
4-Bromofluorobenzene (Surr)	101		50 - 150				

**Lab Sample ID: LCSD 580-191640/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191669**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191640**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO) -C6-C10	40.0	39.9		mg/Kg		100	60 - 120	2	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
Trifluorotoluene (Surr)	103		50 - 150						
4-Bromofluorobenzene (Surr)	100		50 - 150						

**Lab Sample ID: MB 580-191747/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191771**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191747**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.0		mg/Kg		06/10/15 13:24	06/10/15 18:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>						
Trifluorotoluene (Surr)	105		50 - 150						
4-Bromofluorobenzene (Surr)	94		50 - 150						

**Lab Sample ID: LCS 580-191747/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191771**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191747**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO) -C6-C10	40.0	40.9		mg/Kg		102	60 - 120
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
Trifluorotoluene (Surr)	103		50 - 150				
4-Bromofluorobenzene (Surr)	102		50 - 150				

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

**Lab Sample ID: LCSD 580-191747/3-A**

**Matrix: Solid**

**Analysis Batch: 191771**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 191747**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	40.0	39.9		mg/Kg		100	60 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	105		50 - 150
4-Bromofluorobenzene (Surr)	101		50 - 150

**Lab Sample ID: MB 580-191870/1-A**

**Matrix: Solid**

**Analysis Batch: 191893**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 191870**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		4.0		mg/Kg		06/11/15 11:43	06/11/15 14:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150	06/11/15 11:43	06/11/15 14:56	1
4-Bromofluorobenzene (Surr)	93		50 - 150	06/11/15 11:43	06/11/15 14:56	1

**Lab Sample ID: LCS 580-191870/2-A**

**Matrix: Solid**

**Analysis Batch: 191893**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 191870**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10	40.0	38.2		mg/Kg		96	60 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	103		50 - 150
4-Bromofluorobenzene (Surr)	100		50 - 150

**Lab Sample ID: LCSD 580-191870/3-A**

**Matrix: Solid**

**Analysis Batch: 191893**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 191870**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	40.0	37.6		mg/Kg		94	60 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	103		50 - 150
4-Bromofluorobenzene (Surr)	100		50 - 150

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

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

**Lab Sample ID: MB 580-191594/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191953**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191594**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1221	ND		0.011		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1232	ND		0.011		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1242	ND		0.010		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1248	ND		0.011		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1254	ND		0.010		mg/Kg		06/09/15 09:37	06/12/15 15:11	1
PCB-1260	ND		0.010		mg/Kg		06/09/15 09:37	06/12/15 15:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		45 - 135	06/09/15 09:37	06/12/15 15:11	1
DCB Decachlorobiphenyl	84		50 - 140	06/09/15 09:37	06/12/15 15:11	1

**Lab Sample ID: LCS 580-191594/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191953**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191594**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.100	0.0832		mg/Kg		83	40 - 140
PCB-1260	0.100	0.0874		mg/Kg		87	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	80		45 - 135
DCB Decachlorobiphenyl	101		50 - 140

**Lab Sample ID: LCSD 580-191594/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191953**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191594**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.100	0.0832		mg/Kg		83	40 - 140	0	20
PCB-1260	0.100	0.0845		mg/Kg		85	60 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	77		45 - 135
DCB Decachlorobiphenyl	94		50 - 140

**Lab Sample ID: 580-50580-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 191953**

**Client Sample ID: WC-1-S-0-2**  
**Prep Type: Total/NA**  
**Prep Batch: 191594**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		0.102	0.0761		mg/Kg	☼	75	40 - 140
PCB-1260	ND		0.102	0.0828		mg/Kg	☼	76	60 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	73		45 - 135
DCB Decachlorobiphenyl	86		50 - 140

TestAmerica Seattle



# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

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

**Lab Sample ID: 580-50580-1 MSD**

**Matrix: Solid**  
**Analysis Batch: 191953**

**Client Sample ID: WC-1-S-0-2**

**Prep Type: Total/NA**  
**Prep Batch: 191594**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
PCB-1016	ND		0.102	0.0794		mg/Kg	☼	78	40 - 140	4	20
PCB-1260	ND		0.102	0.0857		mg/Kg	☼	78	60 - 130	3	20
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
Tetrachloro-m-xylene	78		45 - 135								
DCB Decachlorobiphenyl	98		50 - 140								

**Lab Sample ID: MB 580-191601/1-A**

**Matrix: Solid**  
**Analysis Batch: 191726**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.010		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1221	ND		0.011		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1232	ND		0.011		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1242	ND		0.010		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1248	ND		0.011		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1254	ND		0.010		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
PCB-1260	ND		0.010		mg/Kg		06/09/15 09:55	06/10/15 18:31	1
<b>MB MB</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>		
Tetrachloro-m-xylene	77		45 - 135		06/09/15 09:55	06/10/15 18:31	1		
DCB Decachlorobiphenyl	93		50 - 140		06/09/15 09:55	06/10/15 18:31	1		

**Lab Sample ID: MB 580-191601/1-A**

**Matrix: Solid**  
**Analysis Batch: 191726**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1221	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1232	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1242	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1248	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1254	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
PCB-1260	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 07:12	1
<b>MB MB</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>		
Tetrachloro-m-xylene	77		45 - 135		06/09/15 09:55	06/11/15 07:12	1		
DCB Decachlorobiphenyl	99		50 - 140		06/09/15 09:55	06/11/15 07:12	1		

**Lab Sample ID: MB 580-191601/1-A**

**Matrix: Solid**  
**Analysis Batch: 191872**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 14:14	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

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

**Lab Sample ID: MB 580-191601/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191872**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 14:14	1
PCB-1232	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 14:14	1
PCB-1242	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 14:14	1
PCB-1248	ND		0.011		mg/Kg		06/09/15 09:55	06/11/15 14:14	1
PCB-1254	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 14:14	1
PCB-1260	ND		0.010		mg/Kg		06/09/15 09:55	06/11/15 14:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		45 - 135	06/09/15 09:55	06/11/15 14:14	1
DCB Decachlorobiphenyl	103		50 - 140	06/09/15 09:55	06/11/15 14:14	1

**Lab Sample ID: LCS 580-191601/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191726**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.100	0.0901		mg/Kg		90	40 - 140
PCB-1260	0.100	0.0928		mg/Kg		93	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	78		45 - 135
DCB Decachlorobiphenyl	104		50 - 140

**Lab Sample ID: LCSD 580-191601/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191726**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191601**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.100	0.0887		mg/Kg		89	40 - 140	2	20
PCB-1260	0.100	0.0889		mg/Kg		89	60 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	76		45 - 135
DCB Decachlorobiphenyl	99		50 - 140

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

**Lab Sample ID: MB 580-191612/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg		06/09/15 10:58	06/10/15 07:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150	06/09/15 10:58	06/10/15 07:17	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

**Lab Sample ID: LCS 580-191612/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	500	402		mg/Kg		80	75 - 125
<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
<i>o</i> -Terphenyl	82		50 - 150				

**Lab Sample ID: LCSD 580-191612/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
DRO (nC10-<nC25)	500	374		mg/Kg		75	75 - 125	7	20
<b>Surrogate</b>	<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
<i>o</i> -Terphenyl	75		50 - 150						

**Lab Sample ID: 580-50580-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: WC-1-S-0-2**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	20	Y	511	407		mg/Kg	☼	76	75 - 125
<b>Surrogate</b>	<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
<i>o</i> -Terphenyl	81		50 - 150						

**Lab Sample ID: 580-50580-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: WC-1-S-0-2**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
DRO (nC10-<nC25)	20	Y	496	397		mg/Kg	☼	76	75 - 125	2	20
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
<i>o</i> -Terphenyl	78		50 - 150								

**Lab Sample ID: 580-50580-20 DU**  
**Matrix: Solid**  
**Analysis Batch: 191696**

**Client Sample ID: WC-7-S-11-13**  
**Prep Type: Total/NA**  
**Prep Batch: 191612**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
DRO (nC10-<nC25)	8100	Y	7850		mg/Kg	☼	3	20
<b>Surrogate</b>	<b>DU %Recovery</b>	<b>DU Qualifier</b>	<b>Limits</b>					
<i>o</i> -Terphenyl	92		50 - 150					

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

**Lab Sample ID: MB 580-191627/1-A**  
**Matrix: Solid**  
**Analysis Batch: 191824**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191627**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg		06/09/15 13:40	06/12/15 09:20	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				06/09/15 13:40	06/12/15 09:20	1

**Lab Sample ID: LCS 580-191627/2-A**  
**Matrix: Solid**  
**Analysis Batch: 191824**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191627**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (nC10-<nC25)	500	410		mg/Kg		82	75 - 125
Surrogate	%Recovery	LCS Qualifier	Limits				%Rec.
<i>o</i> -Terphenyl	82		50 - 150				

**Lab Sample ID: LCSD 580-191627/3-A**  
**Matrix: Solid**  
**Analysis Batch: 191824**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 191627**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (nC10-<nC25)	500	423		mg/Kg		85	75 - 125	3	20
Surrogate	%Recovery	LCSD Qualifier	Limits				%Rec.	RPD	Limit
<i>o</i> -Terphenyl	88		50 - 150						

**Lab Sample ID: 580-50580-23 MS**  
**Matrix: Solid**  
**Analysis Batch: 191824**

**Client Sample ID: WC-8-S-9-11**  
**Prep Type: Total/NA**  
**Prep Batch: 191627**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (nC10-<nC25)	ND		528	414		mg/Kg	☼	76	75 - 125
Surrogate	%Recovery	MS Qualifier	Limits						%Rec.
<i>o</i> -Terphenyl	75		50 - 150						

**Lab Sample ID: 580-50580-23 MSD**  
**Matrix: Solid**  
**Analysis Batch: 191824**

**Client Sample ID: WC-8-S-9-11**  
**Prep Type: Total/NA**  
**Prep Batch: 191627**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (nC10-<nC25)	ND		529	434		mg/Kg	☼	80	75 - 125	5	20
Surrogate	%Recovery	MSD Qualifier	Limits						%Rec.	RPD	Limit
<i>o</i> -Terphenyl	83		50 - 150								

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Method: D 2216 - Percent Moisture

Lab Sample ID: 580-50580-1 DU

Matrix: Solid

Analysis Batch: 192099

Client Sample ID: WC-1-S-0-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	95		94		%		1	20
Percent Moisture	4.6		5.7	F3	%		21	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-0-2**

**Date Collected: 06/04/15 14:30**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-1-S-0-2**

**Date Collected: 06/04/15 14:30**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-1**

**Matrix: Solid**

**Percent Solids: 95.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	191458	06/10/15 06:48	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/09/15 23:51	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 16:01	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 08:06	EKK	TAL SEA

**Client Sample ID: WC-1-S-4-6**

**Date Collected: 06/04/15 15:00**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-1-S-4-6**

**Date Collected: 06/04/15 15:00**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-2**

**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	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	191458	06/10/15 07:20	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 00:22	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 16:51	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 08:54	EKK	TAL SEA

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-1-S-13-15**

**Lab Sample ID: 580-50580-3**

**Date Collected: 06/04/15 15:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-1-S-13-15**

**Lab Sample ID: 580-50580-3**

**Date Collected: 06/04/15 15:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	192252	06/16/15 15:18	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 00:53	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 17:07	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 09:10	EKK	TAL SEA

**Client Sample ID: WC-2-S-0-2**

**Lab Sample ID: 580-50580-4**

**Date Collected: 06/04/15 13:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-2-S-0-2**

**Lab Sample ID: 580-50580-4**

**Date Collected: 06/04/15 13:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	192252	06/16/15 15:49	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 01:24	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 17:24	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 09:26	EKK	TAL SEA

**Client Sample ID: WC-2-S-4-6**

**Lab Sample ID: 580-50580-5**

**Date Collected: 06/04/15 13:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-2-S-4-6**

**Lab Sample ID: 580-50580-5**

**Date Collected: 06/04/15 13:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	192252	06/16/15 16:21	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 01:55	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 17:41	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 09:43	EKK	TAL SEA

**Client Sample ID: WC-2-S-13-15**

**Lab Sample ID: 580-50580-6**

**Date Collected: 06/04/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-2-S-13-15**

**Lab Sample ID: 580-50580-6**

**Date Collected: 06/04/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	192252	06/16/15 16:52	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 02:26	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 18:31	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 10:15	EKK	TAL SEA

**Client Sample ID: WC-3-S-0-2**

**Lab Sample ID: 580-50580-7**

**Date Collected: 06/03/15 08:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA



# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-0-2**

**Lab Sample ID: 580-50580-7**

**Date Collected: 06/03/15 08:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 77.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191616	06/09/15 11:45	STA	TAL SEA
Total/NA	Analysis	8260B		1	191966	06/12/15 19:29	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 02:57	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 18:48	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 10:31	EKK	TAL SEA

**Client Sample ID: WC-3-S-9-11**

**Lab Sample ID: 580-50580-8**

**Date Collected: 06/03/15 09:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-3-S-9-11**

**Lab Sample ID: 580-50580-8**

**Date Collected: 06/03/15 09:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 74.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/10/15 18:17	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 03:58	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 19:04	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 10:47	EKK	TAL SEA

**Client Sample ID: WC-3-S-13-15**

**Lab Sample ID: 580-50580-9**

**Date Collected: 06/03/15 09:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-3-S-13-15**

**Lab Sample ID: 580-50580-9**

**Date Collected: 06/03/15 09:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 96.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-3-S-13-15**

**Lab Sample ID: 580-50580-9**

**Date Collected: 06/03/15 09:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 96.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	191793	06/10/15 23:13	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 04:29	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 19:21	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 11:04	EKK	TAL SEA

**Client Sample ID: WC-4-S-0-2**

**Lab Sample ID: 580-50580-10**

**Date Collected: 06/03/15 10:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-4-S-0-2**

**Lab Sample ID: 580-50580-10**

**Date Collected: 06/03/15 10:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 79.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/10/15 23:46	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 05:00	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 19:37	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 11:20	EKK	TAL SEA

**Client Sample ID: WC-4-S-13-15**

**Lab Sample ID: 580-50580-11**

**Date Collected: 06/03/15 11:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-4-S-13-15**

**Lab Sample ID: 580-50580-11**

**Date Collected: 06/03/15 11:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 00:19	TL1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-4-S-13-15**

**Lab Sample ID: 580-50580-11**

**Date Collected: 06/03/15 11:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 95.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 05:31	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 19:54	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 11:36	EKK	TAL SEA

**Client Sample ID: WC-4-S-9-11**

**Lab Sample ID: 580-50580-12**

**Date Collected: 06/03/15 10:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-4-S-9-11**

**Lab Sample ID: 580-50580-12**

**Date Collected: 06/03/15 10:45**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 74.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 00:52	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 06:02	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 20:11	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 11:52	EKK	TAL SEA

**Client Sample ID: WC-5-S-13-15**

**Lab Sample ID: 580-50580-13**

**Date Collected: 06/03/15 12:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-5-S-13-15**

**Lab Sample ID: 580-50580-13**

**Date Collected: 06/03/15 12:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 01:25	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-13-15**

**Lab Sample ID: 580-50580-13**

**Date Collected: 06/03/15 12:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK101		1	191669	06/10/15 06:33	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 20:28	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 12:08	EKK	TAL SEA

**Client Sample ID: WC-5-S-0-2**

**Lab Sample ID: 580-50580-14**

**Date Collected: 06/03/15 11:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-5-S-0-2**

**Lab Sample ID: 580-50580-14**

**Date Collected: 06/03/15 11:20**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 75.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 01:58	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 07:04	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 20:44	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 12:25	EKK	TAL SEA

**Client Sample ID: WC-5-S-9-11**

**Lab Sample ID: 580-50580-15**

**Date Collected: 06/03/15 11:50**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-5-S-9-11**

**Lab Sample ID: 580-50580-15**

**Date Collected: 06/03/15 11:50**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 02:31	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 07:35	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-5-S-9-11**

**Lab Sample ID: 580-50580-15**

**Date Collected: 06/03/15 11:50**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 21:01	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 12:41	EKK	TAL SEA

**Client Sample ID: WC-6-S-0-2**

**Lab Sample ID: 580-50580-16**

**Date Collected: 06/03/15 15:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-6-S-0-2**

**Lab Sample ID: 580-50580-16**

**Date Collected: 06/03/15 15:05**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 03:03	TL1	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 08:06	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 21:51	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 13:13	EKK	TAL SEA

**Client Sample ID: WC-6-S-9-11**

**Lab Sample ID: 580-50580-17**

**Date Collected: 06/03/15 15:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-6-S-9-11**

**Lab Sample ID: 580-50580-17**

**Date Collected: 06/03/15 15:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 79.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 03:36	TL1	TAL SEA
Total/NA	Prep	5035	DL		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	DL	1	192252	06/16/15 19:26	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-6-S-9-11**

**Lab Sample ID: 580-50580-17**

**Date Collected: 06/03/15 15:30**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 79.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK101		1	191893	06/12/15 04:38	CJ	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 22:08	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 13:29	EKK	TAL SEA

**Client Sample ID: WC-6-S-13-15**

**Lab Sample ID: 580-50580-18**

**Date Collected: 06/03/15 16:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-6-S-13-15**

**Lab Sample ID: 580-50580-18**

**Date Collected: 06/03/15 16:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 04:09	TL1	TAL SEA
Total/NA	Prep	5035	DL		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	DL	1	192252	06/16/15 19:57	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 09:39	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 22:25	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 13:46	EKK	TAL SEA

**Client Sample ID: WC-7-S-0-2**

**Lab Sample ID: 580-50580-19**

**Date Collected: 06/04/15 11:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-7-S-0-2**

**Lab Sample ID: 580-50580-19**

**Date Collected: 06/04/15 11:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 81.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 04:42	TL1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-0-2**

**Lab Sample ID: 580-50580-19**

**Date Collected: 06/04/15 11:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 81.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	RA		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	RA	1	192252	06/16/15 17:23	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191893	06/12/15 04:07	CJ	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 22:41	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 14:02	EKK	TAL SEA

**Client Sample ID: WC-7-S-11-13**

**Lab Sample ID: 580-50580-20**

**Date Collected: 06/04/15 11:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	192099	06/13/15 18:10	ERZ	TAL SEA

**Client Sample ID: WC-7-S-11-13**

**Lab Sample ID: 580-50580-20**

**Date Collected: 06/04/15 11:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 77.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 05:14	TL1	TAL SEA
Total/NA	Prep	5035	DL		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	DL	1	192252	06/16/15 20:28	CJ	TAL SEA
Total/NA	Prep	5035			191640	06/09/15 14:09	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191669	06/10/15 10:41	D1R	TAL SEA
Total/NA	Prep	3550B			191594	06/09/15 09:37	RBL	TAL SEA
Total/NA	Analysis	8082		1	191953	06/12/15 22:58	ALC	TAL SEA
Total/NA	Prep	3546			191612	06/09/15 10:58	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191696	06/10/15 14:18	EKK	TAL SEA

**Client Sample ID: WC-7-S-13-15**

**Lab Sample ID: 580-50580-21**

**Date Collected: 06/04/15 11:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-7-S-13-15**

**Lab Sample ID: 580-50580-21**

**Date Collected: 06/04/15 11:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 91.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 05:47	TL1	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 21:15	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191872	06/11/15 14:31	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/12/15 11:01	EKK	TAL SEA

**Client Sample ID: WC-8-S-0-2**

**Lab Sample ID: 580-50580-22**

**Date Collected: 06/04/15 12:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-8-S-0-2**

**Lab Sample ID: 580-50580-22**

**Date Collected: 06/04/15 12:15**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 06:20	TL1	TAL SEA
Total/NA	Prep	5035	RA		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	RA	1	192252	06/16/15 17:54	CJ	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 21:46	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 21:44	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 08:59	EKK	TAL SEA

**Client Sample ID: WC-8-S-9-11**

**Lab Sample ID: 580-50580-23**

**Date Collected: 06/04/15 12:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-8-S-9-11**

**Lab Sample ID: 580-50580-23**

**Date Collected: 06/04/15 12:35**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 93.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 06:52	TL1	TAL SEA
Total/NA	Prep	5035	RA		191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B	RA	1	192252	06/16/15 18:25	CJ	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 22:17	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 22:01	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 09:17	EKK	TAL SEA

**Client Sample ID: WC-8-S-13-15**

**Lab Sample ID: 580-50580-24**

**Date Collected: 06/04/15 12:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-8-S-13-15**

**Lab Sample ID: 580-50580-24**

**Date Collected: 06/04/15 12:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 93.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 07:25	TL1	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 22:48	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 22:18	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 09:35	EKK	TAL SEA

**Client Sample ID: WC-9-S-0-2**

**Lab Sample ID: 580-50580-25**

**Date Collected: 06/04/15 09:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-0-2**

**Lab Sample ID: 580-50580-25**

**Date Collected: 06/04/15 09:40**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 07:58	TL1	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 23:19	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 23:08	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 09:53	EKK	TAL SEA

**Client Sample ID: WC-9-S-9-11**

**Lab Sample ID: 580-50580-26**

**Date Collected: 06/04/15 10:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-9-S-9-11**

**Lab Sample ID: 580-50580-26**

**Date Collected: 06/04/15 10:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 72.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191735	06/10/15 12:04	STA	TAL SEA
Total/NA	Analysis	8260B		1	191793	06/11/15 08:31	TL1	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 23:50	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 23:24	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 10:11	EKK	TAL SEA

**Client Sample ID: WC-9-S-13-15**

**Lab Sample ID: 580-50580-27**

**Date Collected: 06/04/15 10:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-9-S-13-15**

**Lab Sample ID: 580-50580-27**

**Date Collected: 06/04/15 10:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-9-S-13-15**

**Lab Sample ID: 580-50580-27**

**Date Collected: 06/04/15 10:10**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	191902	06/11/15 18:32	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 00:52	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 23:41	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 10:28	EKK	TAL SEA

**Client Sample ID: WC-10-S-0-2**

**Lab Sample ID: 580-50580-28**

**Date Collected: 06/03/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-10-S-0-2**

**Lab Sample ID: 580-50580-28**

**Date Collected: 06/03/15 14:00**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 77.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 20:10	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 01:23	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/10/15 23:58	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 11:04	EKK	TAL SEA

**Client Sample ID: WC-10-S-9-11**

**Lab Sample ID: 580-50580-29**

**Date Collected: 06/03/15 14:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-10-S-9-11**

**Lab Sample ID: 580-50580-29**

**Date Collected: 06/03/15 14:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 20:43	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: WC-10-S-9-11**

**Lab Sample ID: 580-50580-29**

**Date Collected: 06/03/15 14:25**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 01:54	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 00:14	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 11:22	EKK	TAL SEA

**Client Sample ID: WC-10-S-13-15**

**Lab Sample ID: 580-50580-30**

**Date Collected: 06/03/15 14:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: WC-10-S-13-15**

**Lab Sample ID: 580-50580-30**

**Date Collected: 06/03/15 14:55**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 21:16	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 02:25	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 00:31	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 11:40	EKK	TAL SEA

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-50580-31**

**Date Collected: 06/03/15 00:01**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-50580-31**

**Date Collected: 06/03/15 00:01**

**Matrix: Solid**

**Date Received: 06/06/15 09:30**

**Percent Solids: 96.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 21:48	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

**Client Sample ID: BD-1-S**

**Date Collected: 06/03/15 00:01**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-31**

**Matrix: Solid**

**Percent Solids: 96.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK101		1	191771	06/11/15 02:56	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 00:47	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 12:53	EKK	TAL SEA

**Client Sample ID: BD-2-S**

**Date Collected: 06/03/15 00:01**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-32**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: BD-2-S**

**Date Collected: 06/03/15 00:01**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-32**

**Matrix: Solid**

**Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 22:21	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 03:27	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 01:04	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 13:11	EKK	TAL SEA

**Client Sample ID: BD-3-S**

**Date Collected: 06/04/15 00:01**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-33**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

**Client Sample ID: BD-3-S**

**Date Collected: 06/04/15 00:01**

**Date Received: 06/06/15 09:30**

**Lab Sample ID: 580-50580-33**

**Matrix: Solid**

**Percent Solids: 72.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 22:54	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 03:58	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Client Sample ID: BD-3-S

Date Collected: 06/04/15 00:01

Date Received: 06/06/15 09:30

## Lab Sample ID: 580-50580-33

Matrix: Solid

Percent Solids: 72.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 06:06	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 13:29	EKK	TAL SEA

## Client Sample ID: BD-4-S

Date Collected: 06/04/15 00:01

Date Received: 06/06/15 09:30

## Lab Sample ID: 580-50580-34

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	191639	06/09/15 13:58	DCV	TAL SEA

## Client Sample ID: BD-4-S

Date Collected: 06/04/15 00:01

Date Received: 06/06/15 09:30

## Lab Sample ID: 580-50580-34

Matrix: Solid

Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B		1	191902	06/11/15 23:27	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/11/15 04:28	D1R	TAL SEA
Total/NA	Prep	3550B			191601	06/09/15 09:55	DCC	TAL SEA
Total/NA	Analysis	8082		1	191726	06/11/15 06:22	ALC	TAL SEA
Total/NA	Prep	3546			191627	06/09/15 13:40	DCV	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191824	06/11/15 13:47	EKK	TAL SEA

## Client Sample ID: Trip Blanks

Date Collected: 06/03/15 00:01

Date Received: 06/06/15 09:30

## Lab Sample ID: 580-50580-35

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		191891	06/11/15 12:53	STA	TAL SEA
Total/NA	Analysis	8260B	DL	1	191902	06/11/15 17:26	D1R	TAL SEA
Total/NA	Prep	5035			191747	06/10/15 13:27	EPB	TAL SEA
Total/NA	Analysis	AK101		1	191771	06/10/15 20:44	D1R	TAL SEA

### Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Certification Summary

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

## Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16

# Sample Summary

Client: ARCADIS U.S. Inc  
Project/Site: GE- Nikiski

TestAmerica Job ID: 580-50580-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-50580-1	WC-1-S-0-2	Solid	06/04/15 14:30	06/06/15 09:30
580-50580-2	WC-1-S-4-6	Solid	06/04/15 15:00	06/06/15 09:30
580-50580-3	WC-1-S-13-15	Solid	06/04/15 15:20	06/06/15 09:30
580-50580-4	WC-2-S-0-2	Solid	06/04/15 13:15	06/06/15 09:30
580-50580-5	WC-2-S-4-6	Solid	06/04/15 13:40	06/06/15 09:30
580-50580-6	WC-2-S-13-15	Solid	06/04/15 14:00	06/06/15 09:30
580-50580-7	WC-3-S-0-2	Solid	06/03/15 08:30	06/06/15 09:30
580-50580-8	WC-3-S-9-11	Solid	06/03/15 09:25	06/06/15 09:30
580-50580-9	WC-3-S-13-15	Solid	06/03/15 09:45	06/06/15 09:30
580-50580-10	WC-4-S-0-2	Solid	06/03/15 10:15	06/06/15 09:30
580-50580-11	WC-4-S-13-15	Solid	06/03/15 11:05	06/06/15 09:30
580-50580-12	WC-4-S-9-11	Solid	06/03/15 10:45	06/06/15 09:30
580-50580-13	WC-5-S-13-15	Solid	06/03/15 12:05	06/06/15 09:30
580-50580-14	WC-5-S-0-2	Solid	06/03/15 11:20	06/06/15 09:30
580-50580-15	WC-5-S-9-11	Solid	06/03/15 11:50	06/06/15 09:30
580-50580-16	WC-6-S-0-2	Solid	06/03/15 15:05	06/06/15 09:30
580-50580-17	WC-6-S-9-11	Solid	06/03/15 15:30	06/06/15 09:30
580-50580-18	WC-6-S-13-15	Solid	06/03/15 16:00	06/06/15 09:30
580-50580-19	WC-7-S-0-2	Solid	06/04/15 11:00	06/06/15 09:30
580-50580-20	WC-7-S-11-13	Solid	06/04/15 11:10	06/06/15 09:30
580-50580-21	WC-7-S-13-15	Solid	06/04/15 11:35	06/06/15 09:30
580-50580-22	WC-8-S-0-2	Solid	06/04/15 12:15	06/06/15 09:30
580-50580-23	WC-8-S-9-11	Solid	06/04/15 12:35	06/06/15 09:30
580-50580-24	WC-8-S-13-15	Solid	06/04/15 12:55	06/06/15 09:30
580-50580-25	WC-9-S-0-2	Solid	06/04/15 09:40	06/06/15 09:30
580-50580-26	WC-9-S-9-11	Solid	06/04/15 10:00	06/06/15 09:30
580-50580-27	WC-9-S-13-15	Solid	06/04/15 10:10	06/06/15 09:30
580-50580-28	WC-10-S-0-2	Solid	06/03/15 14:00	06/06/15 09:30
580-50580-29	WC-10-S-9-11	Solid	06/03/15 14:25	06/06/15 09:30
580-50580-30	WC-10-S-13-15	Solid	06/03/15 14:55	06/06/15 09:30
580-50580-31	BD-1-S	Solid	06/03/15 00:01	06/06/15 09:30
580-50580-32	BD-2-S	Solid	06/03/15 00:01	06/06/15 09:30
580-50580-33	BD-3-S	Solid	06/04/15 00:01	06/06/15 09:30
580-50580-34	BD-4-S	Solid	06/04/15 00:01	06/06/15 09:30
580-50580-35	Trip Blanks	Solid	06/03/15 00:01	06/06/15 09:30



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302  
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

1 of 4

## CHAIN OF CUSTODY REPORT


Work Order #:

### TURNAROUND REQUEST

In Business Days \*

10 Organic & Inorganic Analyses  
 7  
 5  
 4  
 3  
 2  
 1  
 <1  
 5 Petroleum Hydrocarbon Analyses  
 4  
 3  
 2  
 1  
 <1  
 OTHER Specify:

\* Turnaround Request less than standard may incur Rush Charges.

CLIENT: <b>FE</b>	INVOICE TO:	REPORT TO: <b>Matthew Peltier</b>	ADDRESS: <b>301 Corporate Center Drive STE 300 Raleigh, NC 27607</b>	PHONE: <b>919-915-2308</b> FAX:	P.O. NUMBER:
PROJECT NUMBER: <b>80031255.1502.00001</b>	SAMPLED BY: <b>Michael West Daniel</b>	PROJECT NAME: <b>FE-NF-15K</b>	DATE: <b>6/15/15</b>	TIME: <b>10:30</b>	DATE: <b>6/15/15</b>
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	GR0 AK101	DRO AK102	PCBs 8032A	TC, PCB, PCBs, PCBs, PCBs, PCBs, PCBs, PCBs
1 WC-1-S-0-2	6/4/15 14:30	X	X	X	X
2 WC-1-S-4-6	6/4/15 15:00	X	X	X	X
3 WC-1-S-13-15	6/4/15 15:20	X	X	X	X
4 WC-2-S-0-2	6/4/15 13:15	X	X	X	X
5 WC-2-S-4-6	6/4/15 13:40	X	X	X	X
6 WC-2-S-13-15	6/4/15 14:00	X	X	X	X
7 WC-3-S-0-2	6/3/15 8:30	X	X	X	X
8 WC-3-S-9-11	6/3/15 9:25	X	X	X	X
9 WC-3-S-13-15	6/3/15 9:45	X	X	X	X
10 WC-4-S-0-2	6/3/15 10:15	X	X	X	X
RELEASER BY: <b>MW</b>	DATE: <b>6/15/15</b>	RECEIVED BY: <b>Don</b>	DATE: <b>6/15/15</b>	FIRM: <b>PA-AN</b>	DATE: <b>6/15/15</b>
PRINT NAME: <b>Michael West Daniel</b>	TIME: <b>10:30</b>	PRINT NAME: <b>Don</b>	TIME: <b>10:30</b>	FIRM: <b>PA-AN</b>	TIME: <b>10:30</b>
RELEASER BY: <b>Andrew Rick</b>	DATE: <b>6/15/15</b>	RECEIVED BY: <b>Michelle</b>	DATE: <b>6/15/15</b>	FIRM: <b>PA-AN</b>	DATE: <b>6/15/15</b>
PRINT NAME: <b>Andrew Rick</b>	TIME: <b>11:30</b>	PRINT NAME: <b>Michelle</b>	TIME: <b>11:30</b>	FIRM: <b>PA-AN</b>	TIME: <b>11:30</b>
ADDITIONAL REMARKS:		 580-50580 Chain of Custody			





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302  
9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-11119

509-924-9200 FAX 924-9290  
503-906-9200 FAX 906-9210  
907-563-9200 FAX 563-9210

3 of 4

8/10/2015

## CHAIN OF CUSTODY REPORT

Work Order #:

### TURNAROUND REQUEST

in Business Days \*

<input type="checkbox"/> 10 STD	<input type="checkbox"/> 7 STD	<input type="checkbox"/> 5 STD	<input type="checkbox"/> 4 STD	<input type="checkbox"/> 3 STD	<input type="checkbox"/> 2 STD	<input type="checkbox"/> 1 STD	<input type="checkbox"/> <1 STD
Organic & Inorganic Analyses				Petroleum Hydrocarbon Analyses			

OTHER Specify:

\* Turnaround Request less than standard may incur Rush Charges.

CLIENT: <b>GE</b>	INVOICE NO:	TURNAROUND REQUEST
REPORT TO: <b>Matthew Pelton</b>	ADDRESS: <b>801 Corporate Center Drive STE 300</b>	ROUNDS: <b>10</b>
PHONE: <b>(919) 415-2398</b>	P.O. NUMBER:	STD: <b>5</b>
PROJECT NAME: <b>GE - Niskini</b>	PRESERVATIVE:	OTHER: <input type="checkbox"/>
PROJECT NUMBER: <b>800 312 55 1592. data 1</b>	REQUESTED ANALYSES:	MATRIX (W, S, O)
SAMPLED BY: <b>Michael MacDavid</b>	MEHT	# OF CONT.
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	LOCATION/ COMMENTS
1. <b>WC-7-S-13-15</b>	<b>6/4/15 11:35</b>	<b>S 2</b>
2. <b>WC-8-S-0-2</b>	<b>6/4/15 12:15</b>	<b>S 2</b>
3. <b>WC-8-S-9-11</b>	<b>6/4/15 12:35</b>	<b>S 2</b>
4. <b>WC-8-S-13-15</b>	<b>6/4/15 12:55</b>	<b>S 2</b>
5. <b>WC-9-S-0-2</b>	<b>6/4/15 9:40</b>	<b>S 2</b>
6. <b>WC-9-S-9-11</b>	<b>6/4/15 10:00</b>	<b>S 2</b>
7. <b>WC-9-S-13-15</b>	<b>6/4/15 10:10</b>	<b>S 2</b>
8. <b>WC-10-S-0-2</b>	<b>6/3/15 14:00</b>	<b>S 2</b>
9. <b>WC-10-S-9-11</b>	<b>6/3/15 14:25</b>	<b>S 2</b>
10. <b>WC-10-S-13-15</b>	<b>6/3/15 14:55</b>	<b>S 2</b>
RELEASED BY: <b>Michael MacDavid</b>	DATE: <b>6/5/15</b>	RECEIVED BY: <b>Dan Fisher</b>
PRINT NAME: <b>Michael MacDavid</b>	TIME: <b>10:30</b>	PRINT NAME: <b>Dan Fisher</b>
RELEASED BY: <b>Andrew Pich</b>	DATE: <b>6/5/15</b>	RECEIVED BY: <b>Michael MacDavid</b>
PRINT NAME: <b>Andrew Pich</b>	TIME: <b>11:30</b>	PRINT NAME: <b>Michael MacDavid</b>
ADDITIONAL REMARKS:	FIRM: <b>TA-AK</b>	FIRM: <b>TA-AK</b>
	TEMP: <b>3.8</b>	DATE: <b>6/11/15</b>
	PAGE: <b>OF</b>	TIME: <b>10:32</b>
		DATE: <b>6/11/15</b>
		TIME: <b>0950</b>

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy, N Suite 400, Bothell, WA 98011-8244  
 11922 E. First Ave, Spokane, WA 99206-5302  
 9405 SW Nimbus Ave, Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

425-420-9200 FAX 420-9210  
 509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #:

### TURNAROUND REQUEST

in Business Days \*

<input checked="" type="checkbox"/> 10 STD	<input type="checkbox"/> 7	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> <1
	Organic & Inorganic Analyses						
<input checked="" type="checkbox"/> 5 STD	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> <1		
	Petroleum Hydrocarbon Analyses						

OTHER Specify: \_\_\_\_\_

\* Turnaround Requests less than standard may incur Rush Charges.

CLIENT: <b>GE</b>	INVOICE TO:	REPORT TO: <b>Matthew Pelton</b>	ADDRESS: <b>301 Corporate Center Drive STE 300</b>	PHONE: <b>(919) 415-2308</b>	FAX: <b>27607</b>																																			
PROJECT NUMBER: <b>800 31255 1502 - 0000</b>	PROJECT NAME: <b>GE - NIK:SKI</b>	SAMPLED BY: <b>Michael Mad D...</b>	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES																																			
<table border="1"> <tr> <th>MECH</th> <th>MECH</th> <th>REQUESTED ANALYSES</th> </tr> <tr> <td>AF10</td> <td>PCBs</td> <td></td> </tr> <tr> <td>PCO</td> <td>AK 102</td> <td></td> </tr> <tr> <td></td> <td>8082A</td> <td></td> </tr> </table>		MECH	MECH	REQUESTED ANALYSES	AF10	PCBs		PCO	AK 102			8082A		<table border="1"> <tr> <th>MATRIX (W, S, O)</th> <th># OF CONT.</th> <th>LOCATION/ COMMENTS</th> <th>TA WO ID</th> </tr> <tr> <td>S</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>S</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>S</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>S</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>S</td> <td>5</td> <td></td> <td></td> </tr> </table>			MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID	S	2			S	2			S	2			S	2			S	5		
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S	2																																							
S	2																																							
S	5																																							
1	BD-1-S	6/3/15	X	X	X																																			
2	BD-2-S	6/3/15	X	X	X																																			
3	BD-3-S	6/4/15	X	X	X																																			
4	BD-4-S	6/4/15	X	X	X																																			
5	Trip Blanks	-	X	X																																				
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7																																								
8																																								
9																																								
10																																								

RELEASED BY: **Neil M...** DATE: **6/5/15** RECEIVED BY: **D...** DATE: **6/5/15**

PRINT NAME: **Michael Mad D...** TIME: **10:30** PRINT NAME: **Omar Sabo** TIME: **10:30**

RELEASED BY: **Andrew Pich** DATE: **6/5/15** RECEIVED BY: **Michelle** DATE: **6/16/15**

PRINT NAME: **Andrew Pich** TIME: **11:30** PRINT NAME: **Michelle** TIME: **09:50**

ADDITIONAL REMARKS: **TA-AK** FIRM: **TA-AK** FIRM: **TA-AK**

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## Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-50580-1

**Login Number: 50580**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Vance, Diane R**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-52114-1

Client Project/Site: Former TBE Machine Shop Property  
Revision: 1

For:

ARCADIS U.S. Inc  
4915 Prospectus Drive  
Suite F  
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton



Authorized for release by:  
8/10/2015 12:33:56 PM

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Job ID: 580-52114-1**

**Laboratory: TestAmerica Seattle**

## Narrative

Report revised 8-10-15 to report VOCs to the MDL.

## Job Narrative 580-52114-1

### Comments

No additional comments.

### Receipt

The samples were received on 8/1/2015 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

### GC/MS VOA

Method(s) AK101: Surrogate recovery for the method blank was outside the upper control limit: (MB 320-81808/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) AK101: The Gasoline Range Organics (GRO) concentration reported for the following samples is due to the presence of discrete peaks: WC-7-S-18-20 (580-52114-11), WC-7-S-23-25 (580-52114-12) and BD-1-S (580-52114-13).

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

### GC Semi VOA

Method(s) AK102 & 103: In analytical batch 580-196880, the following samples from preparation batch 580-196870 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: WC-6-S-18-20 (580-52114-9), WC-6-S-23-25 (580-52114-10), WC-7-S-18-20 (580-52114-11), WC-7-S-23-25 (580-52114-12) and BD-1-S (580-52114-13).

No additional analytical or quality issues were noted, other than those described above or 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.



# Definitions/Glossary

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

## 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.
X	Surrogate is outside control limits

### GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-6-S-18-20**

**Lab Sample ID: 580-52114-9**

**Date Collected: 07/30/15 14:40**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			08/04/15 16:12	1
Percent Moisture	5.0		0.10		%			08/04/15 16:12	1

- 1
- 2
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# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-6-S-18-20**

**Lab Sample ID: 580-52114-9**

**Date Collected: 07/30/15 14:40**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 95.0**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		32	3.5	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1
Tetrachloroethene (PCE)	ND		32	2.7	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1
<b>Ethylbenzene</b>	<b>46</b>		32	4.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1
<b>m-Xylene &amp; p-Xylene</b>	<b>170</b>		32	3.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1
<b>o-Xylene</b>	<b>59</b>		32	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1
<b>Xylenes, Total</b>	<b>230</b>		32	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		65 - 131	08/04/15 17:29	08/05/15 17:11	1
1,2-Dichloroethane-d4 (Surr)	107		52 - 126	08/04/15 17:29	08/05/15 17:11	1
4-Bromofluorobenzene (Surr)	114		67 - 135	08/04/15 17:29	08/05/15 17:11	1
Dibromofluoromethane (Surr)	102		61 - 123	08/04/15 17:29	08/05/15 17:11	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C10 AK</b>	<b>25</b>		3.2		mg/Kg	☼	08/04/15 17:29	08/05/15 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		60 - 120	08/04/15 17:29	08/05/15 17:11	1
Trifluorotoluene (Surr)	65		60 - 120	08/04/15 17:29	08/05/15 17:11	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>100</b>	<b>Y</b>	20		mg/Kg	☼	08/04/15 07:38	08/04/15 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150	08/04/15 07:38	08/04/15 18:05	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-6-S-23-25**

**Lab Sample ID: 580-52114-10**

**Date Collected: 07/30/15 15:00**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			08/04/15 16:12	1
Percent Moisture	4.1		0.10		%			08/04/15 16:12	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-6-S-23-25**

**Lab Sample ID: 580-52114-10**

**Date Collected: 07/30/15 15:00**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 95.9**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		29	3.2	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1
<b>Tetrachloroethene (PCE)</b>	<b>5.8</b>	<b>J</b>	29	2.4	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1
<b>Ethylbenzene</b>	<b>280</b>		29	3.8	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1
<b>m-Xylene &amp; p-Xylene</b>	<b>850</b>		29	2.9	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1
<b>o-Xylene</b>	<b>440</b>		29	3.0	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1
<b>Xylenes, Total</b>	<b>1300</b>		29	3.0	ug/Kg	☼	08/04/15 17:29	08/05/15 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		65 - 131	08/04/15 17:29	08/05/15 18:40	1
1,2-Dichloroethane-d4 (Surr)	104		52 - 126	08/04/15 17:29	08/05/15 18:40	1
4-Bromofluorobenzene (Surr)	117		67 - 135	08/04/15 17:29	08/05/15 18:40	1
Dibromofluoromethane (Surr)	102		61 - 123	08/04/15 17:29	08/05/15 18:40	1

**Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C10 AK</b>	<b>24</b>		2.9		mg/Kg	☼	08/04/15 17:29	08/05/15 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		60 - 120	08/04/15 17:29	08/05/15 18:40	1
Trifluorotoluene (Surr)	65		60 - 120	08/04/15 17:29	08/05/15 18:40	1

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>54</b>	<b>Y</b>	20		mg/Kg	☼	08/04/15 07:38	08/04/15 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	08/04/15 07:38	08/04/15 18:23	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-7-S-18-20**

**Lab Sample ID: 580-52114-11**

**Date Collected: 07/30/15 11:25**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			08/04/15 16:12	1
Percent Moisture	5.2		0.10		%			08/04/15 16:12	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-7-S-18-20**

**Lab Sample ID: 580-52114-11**

**Date Collected: 07/30/15 11:25**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 94.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		30	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1
Tetrachloroethene (PCE)	ND		30	2.6	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1
<b>Ethylbenzene</b>	<b>5.8</b>	<b>J</b>	30	4.0	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1
<b>m-Xylene &amp; p-Xylene</b>	<b>24</b>	<b>J</b>	30	3.0	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1
<b>o-Xylene</b>	<b>9.5</b>	<b>J</b>	30	3.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1
<b>Xylenes, Total</b>	<b>34</b>		30	3.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		65 - 131	08/04/15 17:29	08/05/15 17:32	1
1,2-Dichloroethane-d4 (Surr)	104		52 - 126	08/04/15 17:29	08/05/15 17:32	1
4-Bromofluorobenzene (Surr)	91		67 - 135	08/04/15 17:29	08/05/15 17:32	1
Dibromofluoromethane (Surr)	100		61 - 123	08/04/15 17:29	08/05/15 17:32	1

**Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C10 AK</b>	<b>5.4</b>		3.0		mg/Kg	☼	08/04/15 17:29	08/05/15 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		60 - 120	08/04/15 17:29	08/05/15 17:32	1
Trifluorotoluene (Surr)	67		60 - 120	08/04/15 17:29	08/05/15 17:32	1

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>36</b>	<b>Y</b>	20		mg/Kg	☼	08/04/15 07:38	08/04/15 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	08/04/15 07:38	08/04/15 19:17	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-7-S-23-25**

**Lab Sample ID: 580-52114-12**

**Date Collected: 07/30/15 11:45**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10		%			08/04/15 16:12	1
Percent Moisture	5.7		0.10		%			08/04/15 16:12	1

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# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-7-S-23-25**

**Lab Sample ID: 580-52114-12**

Date Collected: 07/30/15 11:45

Matrix: Solid

Date Received: 08/01/15 10:30

Percent Solids: 94.3

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		32	3.5	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1
<b>Tetrachloroethene (PCE)</b>	<b>4.3</b>	<b>J</b>	32	2.6	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1
<b>Ethylbenzene</b>	<b>6.8</b>	<b>J</b>	32	4.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1
<b>m-Xylene &amp; p-Xylene</b>	<b>23</b>	<b>J</b>	32	3.2	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1
<b>o-Xylene</b>	<b>9.1</b>	<b>J</b>	32	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1
<b>Xylenes, Total</b>	<b>32</b>		32	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		65 - 131	08/04/15 17:29	08/05/15 17:55	1
1,2-Dichloroethane-d4 (Surr)	102		52 - 126	08/04/15 17:29	08/05/15 17:55	1
4-Bromofluorobenzene (Surr)	88		67 - 135	08/04/15 17:29	08/05/15 17:55	1
Dibromofluoromethane (Surr)	98		61 - 123	08/04/15 17:29	08/05/15 17:55	1

### Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C10 AK</b>	<b>4.9</b>		3.2		mg/Kg	☼	08/04/15 17:29	08/05/15 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		60 - 120	08/04/15 17:29	08/05/15 17:55	1
Trifluorotoluene (Surr)	65		60 - 120	08/04/15 17:29	08/05/15 17:55	1

### Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>30</b>	<b>Y</b>	21		mg/Kg	☼	08/04/15 07:38	08/04/15 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	08/04/15 07:38	08/04/15 19:36	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: BD-1-S**

**Date Collected: 07/30/15 00:01**

**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-13**

**Matrix: Solid**

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			08/04/15 16:12	1
Percent Moisture	5.5		0.10		%			08/04/15 16:12	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-52114-13**

**Date Collected: 07/30/15 00:01**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 94.5**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		33	3.6	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1
Tetrachloroethene (PCE)	ND		33	2.8	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1
<b>Ethylbenzene</b>	<b>6.5</b>	<b>J</b>	33	4.3	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1
<b>m-Xylene &amp; p-Xylene</b>	<b>25</b>	<b>J</b>	33	3.3	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1
<b>o-Xylene</b>	<b>11</b>	<b>J</b>	33	3.4	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1
<b>Xylenes, Total</b>	<b>36</b>		33	3.4	ug/Kg	☼	08/04/15 17:29	08/05/15 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		65 - 131	08/04/15 17:29	08/05/15 18:18	1
1,2-Dichloroethane-d4 (Surr)	105		52 - 126	08/04/15 17:29	08/05/15 18:18	1
4-Bromofluorobenzene (Surr)	90		67 - 135	08/04/15 17:29	08/05/15 18:18	1
Dibromofluoromethane (Surr)	102		61 - 123	08/04/15 17:29	08/05/15 18:18	1

## Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C10 AK</b>	<b>13</b>		3.3		mg/Kg	☼	08/04/15 17:29	08/05/15 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 120	08/04/15 17:29	08/05/15 18:18	1
Trifluorotoluene (Surr)	64		60 - 120	08/04/15 17:29	08/05/15 18:18	1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (nC10-&lt;nC25)</b>	<b>38</b>	<b>Y</b>	20		mg/Kg	☼	08/04/15 07:38	08/04/15 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	08/04/15 07:38	08/04/15 19:53	1

# QC Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 320-81808/1-A**  
**Matrix: Solid**  
**Analysis Batch: 81864**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 81808**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene (TCE)	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1
Tetrachloroethene (PCE)	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1
Ethylbenzene	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1
m-Xylene & p-Xylene	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1
o-Xylene	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1
Xylenes, Total	ND		50		ug/Kg		08/04/15 17:29	08/05/15 15:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		65 - 131	08/04/15 17:29	08/05/15 15:09	1
1,2-Dichloroethane-d4 (Surr)	106		52 - 126	08/04/15 17:29	08/05/15 15:09	1
4-Bromofluorobenzene (Surr)	90		67 - 135	08/04/15 17:29	08/05/15 15:09	1
Dibromofluoromethane (Surr)	104		61 - 123	08/04/15 17:29	08/05/15 15:09	1

**Lab Sample ID: LCS 320-81808/2-A**  
**Matrix: Solid**  
**Analysis Batch: 81864**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 81808**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Trichloroethene (TCE)	1000	952		ug/Kg		95	68 - 120
Tetrachloroethene (PCE)	1000	1020		ug/Kg		102	78 - 121
Ethylbenzene	1000	1050		ug/Kg		105	80 - 122
m-Xylene & p-Xylene	1000	989		ug/Kg		99	80 - 123
o-Xylene	1000	974		ug/Kg		97	80 - 120
Xylenes, Total	2000	1960		ug/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	93		65 - 131
1,2-Dichloroethane-d4 (Surr)	94		52 - 126
4-Bromofluorobenzene (Surr)	100		67 - 135
Dibromofluoromethane (Surr)	92		61 - 123

## Method: AK101 - Alaska - Gasoline Range Organics (GC/MS)

**Lab Sample ID: MB 320-81808/1-A**  
**Matrix: Solid**  
**Analysis Batch: 81869**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 81808**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10 AK	ND		5.0		mg/Kg		08/04/15 17:29	08/05/15 15:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 120	08/04/15 17:29	08/05/15 15:09	1
Trifluorotoluene (Surr)	127	X	60 - 120	08/04/15 17:29	08/05/15 15:09	1

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

## Method: AK101 - Alaska - Gasoline Range Organics (GC/MS) (Continued)

**Lab Sample ID: LCS 320-81808/3-A**  
**Matrix: Solid**  
**Analysis Batch: 81869**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 81808**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10 AK	50.0	50.6		mg/Kg		101	60 - 120
<b>Surrogate</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	100		60 - 120				
Trifluorotoluene (Surr)	118		60 - 120				

**Lab Sample ID: LCSD 320-81808/4-A**  
**Matrix: Solid**  
**Analysis Batch: 81869**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 81808**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10 AK	50.0	50.6		mg/Kg		101	60 - 120	0	20
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	98		60 - 120						
Trifluorotoluene (Surr)	116		60 - 120						

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

**Lab Sample ID: MB 580-196870/1-A**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		20		mg/Kg		08/04/15 07:38	08/04/15 17:47	1
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	97		50 - 150				08/04/15 07:38	08/04/15 17:47	1

**Lab Sample ID: LCS 580-196870/2-A**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	500	558		mg/Kg		112	75 - 125
<b>Surrogate</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
o-Terphenyl	100		50 - 150				

**Lab Sample ID: LCSD 580-196870/3-A**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)	500	559		mg/Kg		112	75 - 125	0	20

TestAmerica Seattle

# QC Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

**Lab Sample ID: LCSD 580-196870/3-A**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

	<i>LCSD</i>	<i>LCSD</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>o-Terphenyl</i>	100		50 - 150

**Lab Sample ID: 580-52114-10 MS**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: WC-6-S-23-25**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MS</i>	<i>MS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				
DRO (nC10-<nC25)	54	Y	497	603		mg/Kg	☼	110	75 - 125
<i>Surrogate</i>	<i>MS</i>	<i>MS</i>							
<i>o-Terphenyl</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>						
	98		50 - 150						

**Lab Sample ID: 580-52114-10 MSD**  
**Matrix: Solid**  
**Analysis Batch: 196880**

**Client Sample ID: WC-6-S-23-25**  
**Prep Type: Total/NA**  
**Prep Batch: 196870**

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>	<i>RPD</i>	<i>Limit</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>						
DRO (nC10-<nC25)	54	Y	515	559		mg/Kg	☼	98	75 - 125	8	20
<i>Surrogate</i>	<i>MSD</i>	<i>MSD</i>									
<i>o-Terphenyl</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
	91		50 - 150								

# Lab Chronicle

Client: ARCADIS U.S. Inc  
 Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-6-S-18-20**  
**Date Collected: 07/30/15 14:40**  
**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-9**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	196963	08/04/15 16:12	CTT	TAL SEA

**Client Sample ID: WC-6-S-18-20**  
**Date Collected: 07/30/15 14:40**  
**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-9**  
**Matrix: Solid**  
**Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	8260B		1	81864	08/05/15 17:11	TC1	TAL SAC
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	AK101		1	81869	08/05/15 17:11	EP1	TAL SAC
Total/NA	Prep	3546			196870	08/04/15 07:38	CTT	TAL SEA
Total/NA	Analysis	AK102 & 103		1	196880	08/04/15 18:05	EKK	TAL SEA

**Client Sample ID: WC-6-S-23-25**  
**Date Collected: 07/30/15 15:00**  
**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-10**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	196963	08/04/15 16:12	CTT	TAL SEA

**Client Sample ID: WC-6-S-23-25**  
**Date Collected: 07/30/15 15:00**  
**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-10**  
**Matrix: Solid**  
**Percent Solids: 95.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	8260B		1	81864	08/05/15 18:40	TC1	TAL SAC
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	AK101		1	81869	08/05/15 18:40	EP1	TAL SAC
Total/NA	Prep	3546			196870	08/04/15 07:38	CTT	TAL SEA
Total/NA	Analysis	AK102 & 103		1	196880	08/04/15 18:23	EKK	TAL SEA

**Client Sample ID: WC-7-S-18-20**  
**Date Collected: 07/30/15 11:25**  
**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-11**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	196963	08/04/15 16:12	CTT	TAL SEA

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: WC-7-S-18-20**

**Lab Sample ID: 580-52114-11**

**Date Collected: 07/30/15 11:25**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 94.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	8260B		1	81864	08/05/15 17:32	TC1	TAL SAC
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	AK101		1	81869	08/05/15 17:32	EP1	TAL SAC
Total/NA	Prep	3546			196870	08/04/15 07:38	CTT	TAL SEA
Total/NA	Analysis	AK102 & 103		1	196880	08/04/15 19:17	EKK	TAL SEA

**Client Sample ID: WC-7-S-23-25**

**Lab Sample ID: 580-52114-12**

**Date Collected: 07/30/15 11:45**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	196963	08/04/15 16:12	CTT	TAL SEA

**Client Sample ID: WC-7-S-23-25**

**Lab Sample ID: 580-52114-12**

**Date Collected: 07/30/15 11:45**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	8260B		1	81864	08/05/15 17:55	TC1	TAL SAC
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	AK101		1	81869	08/05/15 17:55	EP1	TAL SAC
Total/NA	Prep	3546			196870	08/04/15 07:38	CTT	TAL SEA
Total/NA	Analysis	AK102 & 103		1	196880	08/04/15 19:36	EKK	TAL SEA

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-52114-13**

**Date Collected: 07/30/15 00:01**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	196963	08/04/15 16:12	CTT	TAL SEA

**Client Sample ID: BD-1-S**

**Lab Sample ID: 580-52114-13**

**Date Collected: 07/30/15 00:01**

**Matrix: Solid**

**Date Received: 08/01/15 10:30**

**Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	8260B		1	81864	08/05/15 18:18	TC1	TAL SAC
Total/NA	Prep	5035			81808	08/04/15 17:29	YML	TAL SAC
Total/NA	Analysis	AK101		1	81869	08/05/15 18:18	EP1	TAL SAC
Total/NA	Prep	3546			196870	08/04/15 07:38	CTT	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

**Client Sample ID: BD-1-S**

**Date Collected: 07/30/15 00:01**

**Date Received: 08/01/15 10:30**

**Lab Sample ID: 580-52114-13**

**Matrix: Solid**

**Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK102 & 103		1	196880	08/04/15 19:53	EKK	TAL SEA

**Laboratory References:**

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310



# Certification Summary

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

## Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16

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

Analysis Method	Prep Method	Matrix	Analyte
D 2216		Solid	Percent Moisture
D 2216		Solid	Percent Solids

## Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-15

Analysis Method	Prep Method	Matrix	Analyte
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# Sample Summary

Client: ARCADIS U.S. Inc  
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-52114-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-52114-9	WC-6-S-18-20	Solid	07/30/15 14:40	08/01/15 10:30
580-52114-10	WC-6-S-23-25	Solid	07/30/15 15:00	08/01/15 10:30
580-52114-11	WC-7-S-18-20	Solid	07/30/15 11:25	08/01/15 10:30
580-52114-12	WC-7-S-23-25	Solid	07/30/15 11:45	08/01/15 10:30
580-52114-13	BD-1-S	Solid	07/30/15 00:01	08/01/15 10:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

52114

11922 E. First Ave., Spokane WA 99206-5302  
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT:	General Electric		INVOICE TO:	TURNAROUND REQUEST
	REPORT TO: Matthew Pelton	ADDRESS: 801 Corporate Center Dr. STE 300 Raleigh NC 27607		
PROJECT NAME:	PROJECT NUMBER:	SAMPLED BY:	DATE/TIME	LOCATIONS/ COMMENTS
GE NIKISKI	BO03255.1502.00001	Michael Madenwald	7/30/15 14:20	3 HOLD
			10:50	3 HOLD
			16:30	3 HOLD
			17:20	3 HOLD
			16:00	3 HOLD
			12:20	3 HOLD
			12:40	3 HOLD
			13:10	3 HOLD

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	ANALYSES	REQUESTED ANALYSES	TA WO ID
WC-6-S-9-11	7/30/15 14:20	TCF, PCBs, PAHs, Metals, SVOCs, PCRA, 8270C, 8260B, Xylins, 8260B, Ethylbenzene, 8260B	PCRA, Metals, 8270C, SVOCs, PCRA, 8270C, TCF, 8260B, PCBs, 8270C, Mercury, 7471A	3 HOLD
WC-6-S-28-30	10:50			3 HOLD
WC-6-S-33-35	16:30			3 HOLD
WC-6-S-38-40	17:20			3 HOLD
WC-7-S-28-30	16:00			3 HOLD
WC-7-S-30-32	12:20			3 HOLD
WC-7-S-38-40	12:40			3 HOLD

RELEASED BY: <u>Michael Madenwald</u>	DATE: 7/31/15	RECEIVED BY: <u>[Signature]</u>	DATE: 7/31/15
PRINT NAME: <u>Michael Madenwald</u>	TIME: 10:00	PRINT NAME: <u>[Signature]</u>	TIME: 10:00
RELEASED BY: <u>Andrew Pich</u>	DATE: 7/31/15	RECEIVED BY: <u>[Signature]</u>	DATE: 8/11/15
PRINT NAME: <u>Andrew Pich</u>	TIME: 11:05	PRINT NAME: <u>[Signature]</u>	TIME: 10:30

580-52114 Chain of Custody

509-924-9200 FAX 924-9290

503-906-9200 FAX 906-9210

907-563-9200 FAX 563-9210

OTHER: HOLD ALL

Specify: HOLD ALL

\* Turnaround Requests less than standard may incur Rush Charges.

Organic & Inorganic Analyses  
 Petroleum Hydrocarbon Analyses

10 7 5 4 3 2 1 <1  
 5 4 3 2 1 <1  
 STD.

TA-ANU DATE: 7/31/15 TIME: 10:00  
 TA See DATE: 8/11/15 TIME: 10:30

TEMP: 0.9 PAGE 1 of 1

COOLER (18-DIG/18-00) 4.1 unc 4.8  
 COOLER DSC (4-BI) 4.1 unc 4.8  
 WetPacks Packing Bulkable



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302  
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: <b>GENERAL ELECTRIC</b>		INVOICE TO:		TURNAROUND REQUEST in Business Days *													
REPORT TO: <b>Matthew Pelton</b>				Organic & Inorganic Analyses Petroleum Hydrocarbon Analyses													
ADDRESS: <b>801 Corporate Center Dr. STE 300</b>				10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <input type="checkbox"/> STD.													
PHONE: <b>(919) 415-2308 FAX:</b>				5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <input type="checkbox"/> STD.													
PROJECT NAME: <b>GE Nixish</b>		PRESERVATIVE:		OTHER <input type="checkbox"/> Specify:													
PROJECT NUMBER: <b>80032155-1502-00001</b>		REQUESTED ANALYSES		* Turnaround Requests less than standard may incur Rush Charges.													
SAMPLED BY: <b>Michael MacDaniel</b>																	
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1. WC-6-S-1R-20	7/30/15 1440	TCE, PCB	8260B	Xylene	R260B	Geo	FK 101	DR	AK 102	SVOCs	R270	PCPA	PCPA	S	3	Select Analysis Held	
2. WC-6-S-23-25	7/30/15 1500		Xylene	R260B	Geo	FK 101	DR	AK 102	SVOCs	R270	PCPA	PCPA	S	3	Select Analysis Held		
3. WC-7-S-18-20	7/30/15 11:25		Xylene	R260B	Geo	FK 101	DR	AK 102	SVOCs	R270	PCPA	PCPA	S	2	Select Analysis Held		
4. WC-7-S-23-25	7/30/15 11:45		Xylene	R260B	Geo	FK 101	DR	AK 102	SVOCs	R270	PCPA	PCPA	S	3	Select Analysis Held		
5. BD-1-S	7/30/15 -		Xylene	R260B	Geo	FK 101	DR	AK 102	SVOCs	R270	PCPA	PCPA	S	2	Analyze PRO		
6. Trip Blank																	
7.																	
8.																	
9.																	
10.																	
RELEASED BY: <b>Mill M...</b>		DATE: <b>7/31/15</b>		TIME: <b>10:00</b>		RECEIVED BY: <b>Dan Dow...</b>		DATE: <b>7/31/15</b>		TIME: <b>10:00</b>		FIRM: <b>TA-AN</b>		DATE: <b>8/11/15</b>		TIME: <b>10:36</b>	
PRINT NAME: <b>Michael MacDaniel</b>		FIRM: <b>ALCADIS</b>		DATE: <b>7/31/15</b>		TIME: <b>11:05</b>		RECEIVED BY: <b>A. V...</b>		DATE: <b>8/11/15</b>		TIME: <b>10:36</b>		FIRM: <b>TA-AN</b>		DATE: <b>8/11/15</b>	
RELEASED BY: <b>Andrew Plich</b>		DATE: <b>7/31/15</b>		TIME: <b>11:05</b>		RECEIVED BY: <b>A. V...</b>		DATE: <b>8/11/15</b>		TIME: <b>10:36</b>		FIRM: <b>TA-AN</b>		DATE: <b>8/11/15</b>		TIME: <b>10:36</b>	
PRINT NAME: <b>Andrew Plich</b>		FIRM: <b>TA-AK</b>		DATE: <b>7/31/15</b>		TIME: <b>11:05</b>		RECEIVED BY: <b>A. V...</b>		DATE: <b>8/11/15</b>		TIME: <b>10:36</b>		FIRM: <b>TA-AN</b>		DATE: <b>8/11/15</b>	
ADDITIONAL REMARKS:																	

Cooler (TB Dig/DR cor 4.1 unc 4.8  
 Cooler Disc Lab Blikel@Lab  
 Wet/Packs Packing  
 Goldstreak w/c.s.



# Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-52114-1

**Login Number: 52114**  
**List Number: 1**  
**Creator: Daugherty, Nicole M**

**List Source: TestAmerica Seattle**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	False	Ink smeared - enough informatin is legible to match the samples with the COC.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Split samples 11 and 13 due to subcontracting.
Residual Chlorine Checked.	N/A	



# Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-52114-1

**Login Number: 52114**  
**List Number: 2**  
**Creator: Paguyo, Joyce A**

**List Source: TestAmerica Sacramento**  
**List Creation: 08/04/15 12:57 PM**

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

ARCADIS

**Appendix D**

ADEC Data Review Checklists



# Laboratory Data Review Checklist

Completed by:

Title:  Date:

CS Report Name:  Report Date:

Consultant Firm:

Laboratory Name:  Laboratory Report Number:

ADEC File Number:  ADEC RecKey Number:

## 1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes     No     NA (Please explain.)    Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes     No     NA (Please explain)    Comments:

## 2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes     No     NA (Please explain)    Comments:

b. Correct analyses requested?

Yes     No     NA (Please explain)    Comments:

## 3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ( $4^{\circ} \pm 2^{\circ}$  C)?

Yes     No     NA (Please explain)    Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes       No       NA (Please explain)      Comments:

Methanol for GRO and 8260B

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes       No       NA (Please explain)      Comments:

"Good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

Yes       No       NA (Please explain)      Comments:

Samples without time written on labels (but time was written on COC): WC-1-S-4-6, WC-2-S-13-15  
Time on COC does not match time on sample label for: WC-1-S-13-15 (lab used time on COC)

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected. Checked field notes against COC for time discrepancy. Times match.

4. Case Narrative

a. Present and understandable?

Yes       No       NA (Please explain)      Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes       No       NA (Please explain)      Comments:

Discussed in detail, below

c. Were all corrective actions documented?

Yes       No       NA (Please explain)      Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes     No     NA (Please explain)

Comments:

b. All applicable holding times met?

Yes     No     NA (Please explain)

Comments:

8082B & 8260B: 14 days from collection to analysis; AK101 = 28 days; AK102 = 14 days collection to extraction, 40 days extraction to analysis  
Collection Dates: 6/3 - 6/4/15  
Prepped: (All) - 6/9/15; (8260B & AK101) - 6/10/15, 6/11/15  
Analyzed: 6/9/15 - 6/16/15

c. All soils reported on a dry weight basis?

Yes     No     NA (Please explain)

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes     No     NA (Please explain)

Comments:

Some 8260B RLs exceed the Migration to Groundwater Cleanup Level. Lab re-distributed lab report with 8260B results reported to the MDL. All MDLs are below the Cleanup Level.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability is not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes     No     NA (Please explain)

Comments:

ii. All method blank results less than PQL?

Yes  No  NA (Please explain)

Comments:

Some detections above MDL but below RL

(1) For MB related to prep/analysis batch: 191616/191458 - EB, m&p-xylene, PCE, and Total Xylenes

(2) For MB related to prep/analysis batch: 191891/191902 - EB, m&p-xylene, o-xylene, and Total Xylenes

iii. If above PQL, what samples are affected?

Comments:

(1) WC-1-S-0-2; WC-1-S-4-6; WC-1-S-13-15; WC-2-S-0-2; WC-2-S-4-6; WC-2-S-13-15; WC-3-S-0-2

(2) WC-9-S-13-15; WC-10-S-0-2; WC-10-S-9-11; WC-10-S-13-15; BD-1-S; BD-2-S; BD-3-S; BD-4-S;

Trip Blank

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes  No  NA (Please explain)

Comments:

Yes, data flags are clearly identified with a B

v. Data quality or usability affected? (Please explain)

Comments:

Of the samples listed in iii, only the following would require a change to non-detect w/ UB qualifier: WC-1-S-0-2 (EB, m&p-xyl, PCE); WC-1-S-4-6 (EB, m&p-xyl, and PCE); WC-3-S-0-2 (EB, m&p-xyl, PCE, and total xyl); WC-9-S-13-15 (m&p-xyl and total xyl); WC-10-S-0-2 (EB, m&p-xyl, o-xyl, total xyl); WC-10-S-9-11 (EB, m&p-xyl, o-xyl, total xyl); BD-1-S (EB, m&p-xyl, o-xyl, total xyl); BD-2-S (o-xyl); BD-3-S (m&p-xyl, total xyl); BD-4-S (EB); trip blank (EB, m&p-xyl, o-xyl, total xyl)

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes  No  NA (Please explain)

Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes  No  NA (Please explain)

Comments:

No metals or inorganics analysis

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes  No  NA (Please explain)

Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes     No     NA (Please explain)    Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

8260B: WC-1-S-0-2, WC-1-S-4-6, WC-1-S-13-15, WC-2-S-0-2, WC-2-S-4-6, WC-2-S-13-15, WC-3-S-0-2 (due to LCS %R); WC-9-S-13-15 (due to MS/MSD %R)

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

F1 for MS/MSD, \* for LCS/LCSD

vii. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

Yes     No     NA (Please explain)    Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes     No     NA (Please explain)    Comments:

Surrogate 4-bromofluorobezene (limits = 50 – 150%) (1) Sample WC-6-S-13-15 for GRO: %R = 674;

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

"X"

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

Data quality or usability is not affected since other surrogates for each sample are within limits.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?  
(If not, enter explanation below.)

Yes       No       NA (Please explain.)      Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?  
(If not, a comment explaining why must be entered below)

Yes       No       NA (Please explain.)      Comments:

iii. All results less than PQL?

Yes       No       NA (Please explain.)      Comments:

iv. If above PQL, what samples are affected?

Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes       No       NA (Please explain)      Comments:

ii. Submitted blind to lab?

Yes       No       NA (Please explain.)      Comments:

BD-1-S is duplicate of WC-3-S-13-15; BD-2-S is duplicate of WC-5-S-13-15; BD-3-S is duplicate of WC-9-S-0-2; BD-4-S is duplicate of WC-1-S-4-6

iii. Precision - All relative percent differences (RPD) less than specified DQOs?  
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where  $R_1$  = Sample Concentration  
 $R_2$  = Field Duplicate Concentration

Yes     No     NA (Please explain)    Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Yes     No     NA (Please explain)    Comments:

Data quality or usability is not affected.

f. Decontamination or Equipment Blank (if applicable)

Yes     No     NA (Please explain)    Comments:

No decon or equipment blank collected

i. All results less than PQL?

Yes     No     NA (Please explain)    Comments:

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes     No     NA (Please explain)    Comments:

Results detected between MDL and RL for 8260B qualified as J by laboratory.

Reset Form