ALASKA
Department of
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Conservation

SITE CHARACTERIZATION REPORT
NAPASKIAK FORMER BIA SCHOOL DAY TANKS

FINAL
February 2012

Prepared by:

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ENVIRONMENTAL

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SITE CHARACTERIZATION REPORT

February 13, 2012

Prepared for:

Alaska Department of Environmental Conservation and Lower Kuskokwim School District

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ACRONYMS AND ABBREVIATIONS

AK ..... Alaska Method
AST ..... Aboveground storage tank
bgs ..... below ground surface
BIA ..... Bureau of Indian Affairs
BOD…..... Biological oxygen demand
BTEX..... Benzene, toluene, ethylbenzene, and xylenes
CIS ..... Community Information Summaries
COD ..... Chemical oxygen demand
CSM ..... Conceptual site model
DEC..... Alaska Department of Environmental Conservation
DRO ..... Diesel-range organics
EPA..... U. S. Environmental Protection Agency
GRO ..... Gasoline-range organics
LCY ..... Loose cubic yards
LKSD..... Lower Kuskokwim School District
MCL..... Maximum contaminant limits
mg/kg ..... milligrams per kilogram
mg/L ..... milligrams per liter
mL ..... milliliter
ND ..... Not detected
OASIS ..... OASIS Environmental, Inc., an ERM company
PAH..... Polynuclear aromatic hydrocarbons
PID ..... Photoionization detector
ppmv ..... parts per million by volume
QA/QC..... Quality assurance / quality control
RCRA..... Resource Conservation and Recovery Act
RRO ..... Residual-range organics
SDG ..... Sample delivery group
SPLP ..... Synthetic precipitation leaching procedure
VOC ..... Volatile organic compounds

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EXECUTIVE SUMMARY

OASIS Environmental, Inc., an ERM company (OASIS) performed a site characterization at the former Bureau of Indian Affairs (BIA) school in Napaskiak, Alaska. Portions of the site characterization effort were performed under contract to the Alaska Department of Environmental Conservation (DEC). The remainder of the site characterization effort was performed under contract to the Lower Kuskokwim School District (LKSD) in preparation for building a new school on the site.

The project involved installing and sampling temporary monitoring well points, collecting drinking water samples from nearby water supply wells, assessing the surface and subsurface soil by digging and sampling test pits at four areas of potential concern, and evaluating an abandoned sewage lagoon. Contaminants of potential concern include diesel-range organics (DRO), residual-range organics (RRO), gasoline-range organics (GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), volatile organic compounds (VOC), and polynuclear aromatic hydrocarbons (PAH).

OASIS installed temporary monitoring well points between the site and three potential receptors; the current school drinking water well, the community drinking water well, and Napaskiak Slough. Well point WP-1, located between the site and the current school well, did not produce enough water to collect samples. The other two well points were sampled for DRO, RRO, GRO, BTEX, and PAHs. All analytical results were below DEC Table C groundwater cleanup levels except DRO. The DRO concentrations in the two samples were 2.42 milligrams per liter (mg/L) and 1.68 mg/L, exceeding the cleanup level of 1.5 mg/L.

OASIS collected three drinking water samples from two nearby water supply wells; two from the current school well (pre-treatment and post-treatment) and one pre-treatment sample from the community well located west of the site. The samples were analyzed for VOCs. The drinking water wells were not analyzed for DRO. No VOCs were detected in the samples.

OASIS and their subcontractor used a small excavator to dig 25 test pits at four areas of concern; either known release locations or aboveground storage tank farms. The samples were analyzed for DRO, RRO, GRO, and BTEX. Five samples were also analyzed for PAH. Each area contained test pits with DRO concentrations exceeding DEC Method Two MTG cleanup levels; analytical results ranged up to 26,100 milligrams per kilogram (mg/kg) DRO. Several test pit samples also exceeded cleanup levels for benzene, ethylbenzene, naphthalene, 1-methylnaphthalene, and/or 2-methylnaphthalene.

Two soil samples were also submitted for synthetic precipitation leaching procedure (SPLP) extraction and the extracts were analyzed for DRO and PAH. The DRO contamination appears to be leachable at high concentrations; OASIS estimates that at soil concentrations greater than 1,000 mg/kg DRO, DRO may leach from soils at concentrations that exceed surface water standards.

OASIS estimated the quantity of soil exceeding soil cleanup levels, assuming that the DEC approves removal or treatment of only the top two feet of soil from the site. A total volume of approximately 1,000 loose cubic yards (LCY) will require treatment or excavation and disposal.

OASIS collected samples from an abandoned sewage lagoon located on the property to evaluate the thickness of biosolids remaining in the sewage lagoon and the amount of water in the lagoon. Solids samples from the lagoon were analyzed for chemical oxygen demand (COD) and biological oxygen demand (BOD). The results of the analyses indicate that sewage solids are present and still biologically active. In order to leave the sewage solids in place, the lagoon must be de-watered and the sewage solids must be treated. OASIS proposes that the most feasible in-situ treatment for the lagoon is the addition of quicklime to raise the pH of the biosolids.

OASIS performed a bench-scale study treating sewage solids samples with varying quantities of lime. The study results indicate that approximately 900 pounds of quicklime will be needed to treat the sewage solids.

A variety of remediation alternatives were assessed to better understand their ability to address potential risk posed by the fuel-contaminated soil:

- Alternative 1: Excavation and Offsite Disposal
- Alternative 2: Onsite Treatment and Disposal
- Alternative 3: Aggressive Onsite Treatment
- Alternative 4: In Place Landfarming

Of these alternatives, Alternative 4: In Place Landfarming appears to be the most appropriate, and is being proposed as the cleanup technique for the site in accordance with 18 AAC 75.335(c)(5).

1. INTRODUCTION

OASIS Environmental, Inc., an ERM company (OASIS) was contracted by the Alaska Department of Environmental Conservation (DEC) in May 2011 under Notice-to-Proceed 18-4002-11-033C to complete environmental site characterization at the former Bureau of Indian Affairs (BIA) School in Napaskiak, Alaska. The project objective was to delineate petroleum impacts around four locations associated with known or suspected contamination.

In August 2011, the Lower Kuskokwim School District (LKSD) contracted OASIS to expand the DEC site characterization in preparation for construction of a new school on the site. The LKSD project includes assessment of an abandoned sewage lagoon located at the site. In addition, the LKSD asked that OASIS evaluate the suitability of the Napaskiak landfill for disposal of impacted soil from the former BIA school site.

The two projects were performed concurrently in order to minimize costs to both clients. Both clients agreed that OASIS would prepare one report for all concerned parties. This document presents the background information, project objectives, deviations from the original scope, discussion of work performed in September 2011, and the results of the characterization.

1.1. Background

1.1.1. Site Information

Napaskiak is a predominantly Yup'ik Eskimo village located on the east bank of the Kuskokwim River, along Napaskiak Slough, 7 miles southeast of Bethel (Figure 1). The community lies at approximately 60.708060° North latitude and 161.766110° West longitude; Sec. 08, T007N, R071W, Seward Meridian. Napaskiak is located in the Bethel Recording District. The area encompasses 3.5 square miles of land and 0.4 square miles of water. Napaskiak is strongly influenced by storms and weather patterns in the Bering Sea and also by inland continental weather. Average annual precipitation is 16 inches, with 50 inches of snowfall. Summer temperatures range from 42 to 62 degrees Fahrenheit (°F), and winter temperatures average -2 to 19 °F (CIS 2009).

The site is located in the floodplain of the Kuskokwim River and consists of fluvial and floodplain deposits. Groundwater depth is less than 10 feet below ground surface (bgs).

The former BIA school site is located on the west side of the village adjacent to Napaskiak Slough; it lies about 160 feet south of the slough (Figure 2). The site has several buildings including the former school and the utility building. Two former aboveground storage tank (AST) containment areas are present to the south of the school and utility buildings.

1.1.2. Previous Investigations

In 2001, OASIS conducted an area-wide reconnaissance of the Napaskiak tank farms (OASIS 2002). Adjacent to the abandoned BIA school and utility building, day tanks

were present (Area A, Figure 3). The tanks are now gone but cribbing denotes the area where the tanks were located. A stained area was noted at this location and a sample collected from 3 feet below ground surface (bgs) within the stained area had a diesel-range organics (DRO) concentration of 38,900 mg/kg and napthlanene at 83.4 mg/kg. Other petroleum constituents were below DEC soil cleanup levels. A drinking water well is located about 550 feet southeast of the stained area at the Z. John Williams School.

Three other spill areas have been identified in this immediate area as shown on Figure 3. One is to the west of the day tank area and was a release from BIA fuel piping (Area B). Another is located southwest of the day tank release at a former containment area; the spill was related to cracked piping (Area C). The fourth known release is believed to be from a leaking fuel header valve just north of the utility building. A second former AST containment area is located south of the former school (Area D). This area had not been sampled prior to this investigation (LKSD 1994).

1.2. Project Objectives

The primary objectives of the two projects are presented below:

- Delineate the extent of soil impacts as related to the three larger releases (Areas A, B, and C) at the former BIA School area, hereafter referred to as “the Site.”
- Assess whether there are any impacts related to the previously uninvestigated AST containment area (Area D).
- Evaluate contaminant impacts to groundwater by collecting groundwater samples between the Site and nearby drinking water wells.
- Assess water quality in drinking water wells within 500 feet of the Site.
- Assess the presence of sewage solids in the abandoned sewage lagoon and estimate the quantity of lime needed to treat the sewage solids.
- Characterize the soil at the Napaskiak landfill to help obtain a Class III municipal solid waste landfill permit for Napaskiak.

1.3. Contaminants of Concern and Regulatory Framework

The releases from the day tanks and piping consisted of heating fuel. Contaminants of potential concern associated with heating fuel are benzene, toluene, ethylbenzene and total and xylenes (BTEX), gasoline-range organics (GRO), DRO, and polynuclear aromatic hydrocarbons (PAH). Table 1, shown below, provides analytical methods for each contaminant of potential concern, the DEC soil cleanup levels per 18 AAC 75.341, Tables B1 and B2, under 40-inch zone, most stringent exposure pathway, and the groundwater cleanup levels per 18 AAC 75. 345, Table C. Drinking water well volatile organic compound (VOC) sampling results will be compared to the drinking water standards (maximum contaminant levels [MCL]) established in 18 AAC 80.

TABLE 1: DEC CLEANUP LEVELS

Analyte	Laboratory Method	Soil Cleanup Level in mg/kg	Groundwater Cleanup Level in mg/L
Benzene	EPA Method 8021B	0.025	0.005
Toluene	EPA Method 8021B	6.5	1.0
Ethylbenzene	EPA Method 8021B	6.9	0.7
Total Xylenes	EPA Method 8021B	63	10
GRO	Alaska Method AK101	300	2.2
DRO	Alaska Method AK102	250	1.5
RRO	Alaska Method AK 103	10,000[1]	1.1
VOC	EPA 524.2	Various	Various
Acenaphthene	EPA Method 8270c-SIM	180	2.2
Acenaphthylene	EPA Method 8270c-SIM	180	2.2
Anthracene	EPA Method 8270c-SIM	3,000	11
Benzo(a)anthracene	EPA Method 8270c-SIM	3.6	0.0012
Benzo(b)fluoranthene	EPA Method 8270c-SIM	12	0.0012
Benzo(k)fluoranthene	EPA Method 8270c-SIM	120	0.012
Benzo(a)pyrene	EPA Method 8270c-SIM	0.49[2]	0.0002
Benzo(g,h,i)perylene	EPA Method 8270c-SIM	1400[2]	1.1
Chrysene	EPA Method 8270c-SIM	360	0.12
Dibenzo(a,h)anthracene	EPA Method 8270c-SIM	0.49[2]	0.00012
Fluoranthene	EPA Method 8270c-SIM	1,400	1.5
Fluorene	EPA Method 8270c-SIM	220	1.5
Indeno(1,2,3-cd)pyrene	EPA Method 8270c-SIM	4.9[2]	0.0012
Naphthalene	EPA Method 8270c-SIM	20	0.73
Phenanthrene	EPA Method 8270c-SIM	3,000	11
Pyrene	EPA Method 8270c-SIM	1,000	1.1

Notes:
1 Under 40-inch zone, ingestion pathway
2 Under 40-inch zone, direct contact pathway
EPA- U.S. Environmental Protection Agency
mg/kg – milligrams per kilogram
mg/L - milligrams per liter
N/A – Not Applicable
SIM – Selective Ion Monitoring

1.4. Deviations from the Work Plan

A work plan (OASIS 2011) and a work plan addendum (OASIS 2011a) were prepared for the project. The work plans were adhered to with the following exceptions:

- OASIS collected a pre-treatment sample from the community drinking water well which is greater than 500 feet from the area of concern. This was one of the two community water wells and one of the three wells in Napaskiak, including the school well and a community well located east of the school.
- Due to an oversight, the drinking water samples were analyzed using EPA Method 8260B instead of EPA Method 524.2.

- Due to extremely slow recharge at one temporary well point, groundwater samples were collected from only two of the three temporary well points that were installed. The DEC project manager (Grant Lidren) approved this change while visiting the site.
- Due to poor recharge of the other two well points, no duplicate groundwater sample was collected, again with the Mr. Lidren's approval.
- Due to time constraints, only two samples were analyzed using the SPLP procedure, as only two of the samples collected for the LKSD portion of the project were thought to be highly contaminated.
- Due to time constraints, OASIS did not evaluate the soil types at the landfill.

2. FIELD ACTIVITIES

OASIS Environmental scientists Eric Boyette and Sarah Christiansen performed site characterization activities between September 12 and 19, 2011. Robert Lindsey of Dale Construction operated a backhoe provided by Village Safe Water to dig test pits. OASIS subcontracted TestAmerica, Inc. in Anchorage, Alaska to analyze the site characterization samples. The project field notes are included as Appendix A. Selected photographs of the field activities are included as Appendix B.

2.1. Drinking Water Well Sampling

The Z. John Williams School principal, Talbert Bentley, informed OASIS that three wells exist in Napaskiak; the school drinking water well and two community drinking water wells. The two community wells are greater than 500 feet from the former BIA school.

OASIS collected two samples from the school well house; a pre-treatment sample and a post-treatment sample. An additional pre-treatment drinking water sample was collected from the community drinking water well located approximately 800 feet west-southwest of the site. OASIS collected this sample even though it was greater than 500 feet because it was the closest well to the site. The drinking water sample locations are shown in Figure 2.

For each of the three samples, the water was purged for approximately 10 minutes prior to filling the sample containers. The drinking water samples were analyzed using EPA Method 8260B rather than EPA Method 524.2, as discussed in Section 1.4.

2.2. Groundwater Assessment

Three temporary well points, consisting of 1-foot long stainless steel screens and 3/4-inch diameter galvanized pipe risers, were installed at the locations shown on Figure 3. The points were installed by hand using a slide hammer to drive the points to the depth of refusal. The well points were sited between the project area and potential receptors; WP-1 was located between the site and the school drinking water well; WP-2 was located between the site and the community drinking water well; and WP-3 was located between the site and Napaskiak Slough.

Well point WP-1 was installed to a depth of approximately 4 feet below ground surface (bgs). Well point WP-2 was driven to a depth of approximately 9 feet bgs. Well point WP-3 was driven to a depth of approximately 3 feet bgs. The well points were allowed to sit for 24 hours prior to sampling.

The groundwater samples were collected using a no-purge technique per the DEC's request. The points were very slow to recharge and the crew was unable to collect all the sample bottles required for analysis within a single day. Well point WP-1 was extremely slow to recharge. The crew did not collect a sample from this well or a duplicate groundwater sample per the DEC project manager's on-site approval.

The groundwater samples were analyzed for the following sets of compounds:

- DRO using Alaska Method (AK) 102,
- RRO using AK 103,
- GRO using AK 101,
- BTEX using EPA Method 8021B,
- VOCs (which include the BTEX compounds) using EPA Method 8260B, and
- PAH using EPA Method 8270M with selective ion monitoring (SIM).

Following sample collection, the well points were removed using the backhoe that was used to dig the test pits for the soil assessment.

2.3. Soil Assessment

On September 16 – 18, 2011, OASIS directed the advancement of 25 test pits in and surrounding Areas A, B, C, and D as shown on Figure 3. The operator used a Bobcat mini excavator to dig the test pits. This was a smaller excavator than was planned for the site, but due to the site being surrounded by wooden boardwalks, a smaller excavator was needed. The mini-excavator was unable to dig below 10 feet bgs.

Initially, five test pits were dug at each area. After the initial test pits were all completed and field data indicated that in some areas the volume of contaminated soil extended beyond the area initially investigated, OASIS returned to extend the area of investigation by adding test pits A6, B6, C6, C7, and C8 at the locations shown on Figure 3.

2.3.1. Field Screening

OASIS collected field screening samples from the bucket of the excavator at approximate 2-foot intervals from near-surface to the total depth of the test pit. The field screening involved a photoionization detector (PID) heated headspace technique where re-sealable plastic bags were filled 1/3 to 1/2 full of soil. The soil was warmed for 10 to 15 minutes on the warm engine cover on the excavator, away from any exhaust emissions. The crew then inserted a PID probe into the plastic bag and recorded the concentrations of organic vapors in parts per million by volume (ppmv).

2.3.2. Analytical Sampling

The OASIS crew selected the analytical sample depth for each test pit based on the results of the field screening. In general, the depth with the highest PID result was chosen. OASIS then directed the excavator operator to collect a bucket load of soil from the selected depth and collected the sample from undisturbed soil at the center of the bucket.

The sampler immediately placed the soil in the appropriate sample jars for analysis of DRO, RRO, GRO, and BTEX using the analytical methods in Section 2.2. Samples to be analyzed for volatile contaminants, including GRO and BTEX, were immediately preserved with methanol.

Two samples of impacted soil were submitted for synthetic precipitation leaching procedure (SPLP) extraction. The extracts were analyzed for DRO and PAH using the methods in Section 2.2.

2.4. Abandoned Sewage Lagoon Assessment

Treatment and land disposal is being considered for the sewage solids from the former sewage lagoon, located east of Area A in Figure 3. Federal regulations (40 CFR 503.33) require measures be taken to address vector attraction reduction when sewage solids are disposed on land. The regulations provide for a range of potential vector attraction reduction techniques, of which alkali (lime) addition appears to be the most practical for the former BIA school site, given the remote location and limited community resources. It may be appropriate to allow sewage solids to remain in place following treatment.

OASIS examined the abandoned sewage lagoon located east of Area A in Figure 3. The lagoon dimensions are 25 feet by 34 feet. The crew used a Sludge Judge® sampler to collect columns of soil, water, and sewage solids from three locations to evaluate the thickness of sewage solids in the lagoon. The samples were collected from the edges of the sewage lagoon by the OASIS crew using hip waders. No samples were collected from the center of the lagoon.

The collection locations are shown in Figure 3. OASIS collected three samples from each location:

- A sample for a limited bench-scale study to determine whether the addition of alkali would be a practical treatment option for any remaining sewage solids;
- A sample for analysis of chemical oxygen demand (COD); and
- A sample for analysis of biological oxygen demand (BOD).

The BOD sample was collected on the day that the crew left Napaskiak due to a short, 48-hour hold time, required by the analytical methods.

2.4.1. Bench-Scale Study

A limited bench scale study was performed to estimate the amount of alkali (lime) required to treat the sewage solids. The dose rate of lime required was estimated based on the following regulatory requirements (40 CFR 503.33(b)(6)):

- Raise the pH to at least 12
- Maintain a pH of at least 12 without additional lime addition for 2 hours
- Maintain a pH of at least 11.5 without additional lime addition for an additional 22 hours

Three 200 milliliters (mL) sewage solids samples were collected from each location for the bench-scale study. Before conducting the study the environmental scientist recorded the initial pH of each soil sample, using pH strips.

Each of the samples was treated with varying quantities of hydrated lime, the type of lime commonly used in gardening. The environmental scientist estimated the quantity of lime used to treat the first two samples from each location; 1 teaspoon for the first

sample and ½ teaspoon for the second sample. For the third sample from each location, level measuring spoons were used to add the lime. The sample from location WW-1 was treated with ¼ teaspoon of lime; the sample from WW-2 was treated with ½ teaspoon lime; and the sample from WW-3 was treated with ¾ teaspoon lime.

The pH of the treated soil was recorded after 2 hours. The pH was recorded again after 24 hours.

2.5. Sample Management

OASIS placed all the analytical samples in coolers on ice to maintain a temperature of 4°C ± 2°C until the samples were received at the laboratory. Due to the difficulties in shipping from Napaskiak to Anchorage, the crew kept the samples in Napaskiak until they left on September 19, 2011. They transported the samples on the same flight they took to Bethel from Napaskiak.

OASIS used Northern Air Cargo to ship the samples from Bethel to Anchorage.

3. FINDINGS

This section presents the findings of the site characterization efforts. The results of the sampling are presented in Tables 2 through 8 and on Figures 2 through 8. Tables 2 through 5 are located in the Tables tab at the end of the report text. Tables 6 through 8 are included below in the report text. The laboratory reports are included in Appendix C.

3.1. Drinking Water Well Sampling

The analytical results from the drinking water samples are included in Table 2. No VOCs were detected above the reporting limits in any of the drinking water samples. In addition, all reporting limits were below the published maximum contaminant levels except for 1,2-dibromoethane. The MCL of this compound is 0.00005 milligrams per liter (mg/L) and the reporting limit for the project samples was 0.001 mg/L. Measuring 1,2-dibromoethane generally requires specialized analytical techniques to provide detection limits needed to reach MCLs; 1,2-dibromoethane was used as an anti-knock additive in leaded gasoline and is unlikely to be a concern at this Site given the types of fuel present.

3.2. Groundwater Assessment

The analytical results from the groundwater samples are included in Table 3. As mentioned in Section 2.2, no sample was collected from WP-1.

Several analytes were detected above reporting limits in WP-2 including DRO, RRO, GRO, BTEX, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. All detected analyte results were below DEC cleanup levels except DRO. The DRO concentration of 2.42 exceeded the cleanup level of 1.5 mg/L.

No analytes were detected above reporting limits in well point WP-3 except DRO. Again, the DRO concentration of 1.68 mg/L exceeded the DEC Table C groundwater cleanup level of 1.5 mg/L.

Although depth-to-water was measured in all three of the well points, OASIS did not determine the elevation difference between the well points and no groundwater flow direction or gradient can be calculated; although during normal or low water flow on the Kuskokwim River, groundwater would be expected to flow to the northwest toward the river.

3.3. Soil Assessment

The soil sample analytical results are included in Tables 4 and 5. Figures 4 through 7 present the PID and DRO results from the four areas of concern.

3.3.1. Area A

The PID results from Area A ranged from 0.1 parts per million by volume (ppmv) to greater than 1,000 ppmv. One depth from each test pit was selected for analytical

sampling, generally from the highest PID value. As shown in Table 4, the DRO concentrations in Area A range from not-detected (ND) in A3 at 0.5 feet bgs and A6 at 6 feet bgs to 19,800 mg/kg in A2 at 2 feet bgs. The sample from A2 is the only sample to exceed DEC Method Two Soil Cleanup Levels for DRO; the migration-to-groundwater (MTG) cleanup level of 250 mg/kg, the ingestion cleanup level of 10,250 mg/kg and the inhalation cleanup level of 12,500 mg/kg. However, elevated PID readings at location A5, suggest that contamination at that location may also exceed cleanup levels. All other analytical results for DRO, RRO, GRO, and BTEX were either ND or below DEC cleanup levels. The sample from A6 was also analyzed for PAH's. No PAH's were detected in the sample.

3.3.2. Area B

The PID results for Area B ranged from 1.4 ppmv to greater than 485 ppmv. The DRO results for the analytical samples ranged from ND in B5 at 0.5 feet bgs and in B6 at 6 feet bgs to 2,940 mg/kg in B3 at 0.5 feet bgs. The DRO result from B3 was the only result to exceed the DEC MTG soil cleanup level. All other DRO, RRO, GRO, and BTEX results were below cleanup levels.

3.3.3. Area C

The PID results for Area C ranged from 0.1 ppmv to greater than 1,500 ppmv. The DRO results for the analytical samples ranged from ND in C4 at 8 feet bgs and in C6 at 0.5 feet bgs to 15,600 mg/kg in C7 at 8 feet bgs. The DRO results from all test pit analytical samples except for those from C4 and C6 exceeded DEC MTG cleanup levels. The samples from C3 and C7 also exceed the ingestion and inhalation soil cleanup levels.

The benzene results for the samples collected from C2 at 8 feet bgs, C3 at 8 feet bgs, and C7 at 8 feet bgs (0.274, 0.267, and 0.241 mg/kg, respectively) exceeded the MTG cleanup level of 0.025 mg/kg. The ethylbenzene results from C2 at 8 feet (12.3 mg/kg) and C7 at 8 feet bgs (8.44 mg/kg) exceeded the MTG cleanup level of 6.9 mg/kg. The RRO, GRO, toluene, and total xylene results from the Area C samples did not exceed the corresponding cleanup levels. No BTEX compounds exceeded the ingestion or inhalation cleanup levels

The samples from C3, C4, C7, and C8 were also analyzed for PAH's. The results are included in Table 5. The C3 sample exceeded cleanup levels for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. The C7 sample exceeded cleanup levels for naphthalene only. All other PAH results were below cleanup levels.

3.3.4. Area D

The PID results for Area D ranged from 0.6 ppmv to greater than 260 ppmv. The DRO results for the analytical samples ranged from ND in D5 at 4 feet bgs to 26,100 mg/kg in D1 at 0.5 feet bgs. The DRO results from D1, D2, and D3 exceeded the DEC MTG cleanup level. All other DRO, RRO, GRO, and BTEX results were below cleanup levels.

3.4. Leaching Potential

SPLP extractions were performed on the samples collected from test pits C7 and C8. The extracts were analyzed for DRO and PAH's and the results were provided in mg/L. The results are presented in Tables 4 and 5. The SPLP results for DRO and the detected PAH compounds are summarized below in Table 6.

Table 6: Soil and SPLP Extract Results for Detected Analytes

Analyte	DEC Cleanup Levels		Sample Location			
			C7 - 8 feet bgs		C8 - 6 feet bgs	
			NK-11-SS-23		NK-11-SS-25	
	Soil	Water	Soil	Extract	Soil	Extract
DRO	250	1.5	**15600**	**4.55**	**316**	0.712
Acenaphthene	180	2.2	ND (0.858)	ND (0.0500)	0.024	ND (0.0500)
Anthracene	3000	11	0.0364	ND (0.0500)	ND (0.0179)	ND (0.0500)
Fluoranthene	1400	1.5	0.0608	ND (0.0500)	ND (0.0179)	ND (0.0500)
Fluorene	220	1.5	1.41	ND (0.0500)	0.0578	ND (0.0500)
Naphthalene	20	0.73	**34.6**	0.237	1.21	ND (0.0500)

Notes:
Bolded and shaded values exceed DEC cleanup levels
All soil values in mg/kg and all water/extract values in mg/L

The DRO concentration in soil in the C7 sample is very high (15,600 mg/kg). The corresponding SPLP extract contains 4.55 mg/L DRO. This concentration is above DEC groundwater cleanup levels. The DRO concentration in the C8 sample is much lower (316 mg/kg) and the corresponding SPLP extract contains only 0.712 mg/L DRO.

The detected PAH in soil results that are below DEC soil cleanup levels have corresponding SPLP extract results of ND. The naphthalene soil result in the C7 sample is above the soil cleanup level and though the corresponding extract result is detectable, it is below groundwater cleanup levels.

The results above illustrate that water running through soil with high DRO concentrations will leach DRO from the soil that may impact the soil and groundwater below the contaminated soil. Soil that contains lower DRO concentrations will not leach DRO into the substrate. Based on the above results, OASIS estimates that a concentration of 1,000 mg/kg DRO may be the cutoff for leachable versus non-leachable contamination.

3.5. Abandoned Sewage Lagoon Assessment

The dimensions of the abandoned sewage lagoon are 25 feet by 34 feet. The locations for the lagoon samples are shown in Figure 3. The results for the three sample locations are shown below in Table 7.

Table 7: Sewage Lagoon Sample Results

Sample Location	Water Depth (feet)	Sewage solids Thickness (feet)	COD (mg/L)	BOD (mg/L)
WW-1	1.9	0.25	1,770	88.6
WW-2	1.0	0.33	972	14.1
WW-3	1.3	0.42	1,380	31.0

The sewage solids thickness in the sewage lagoon samples ranged from 3 inches to 5 inches and the water depth ranged from 1.0 to 1.9 feet. Volume estimates are provided for water and sewage solids in Section 6.

The average COD result from the three samples is 1,374 mg/L and the average BOD result is 44.6 mg/L. Both the COD and BOD are higher than the average for oxygen content of water, suggesting that the samples collected are sewage solids that exist in an anaerobic environment. The low BOD:COD ratio suggests that the sewage solids have had long exposure to the atmosphere and that the solids have degraded considerably. In other words, natural processes have resulted in considerable biodegradation of the waste.

3.5.1. Bench-Scale Study

The results from the bench-scale study are shown below in Table 8.

Table 8: Bench-Scale Study Results

Sample ID	Dose	$pH_{initial}$	$pH_{2\text{-hour}}$	$pH_{24\text{-hour}}$
1a	1 tsp*	6	12.5	12.5
2a	1 tsp*	5	12.5	12.5
3a	1 tsp*	5	12.5	13
1b	1/2 tsp*	6	12	12.5
2b	1/2 tsp*	6	12	12
3b	1/2 tsp*	6	12	12
1c	1/4 tsp	6	10.5	10.5
2c	1/2 tsp	6	11.5	12
3c	3/4 tsp	6	12	12

Notes:
* - Volume was estimated

The first six hydrated lime dosages for the “a” and “b” samples were estimated by the environmental scientist and used to refine the estimated volume of lime used to treat the “c” sample. The “c” sample dosages were measured using standard kitchen teaspoon measures. The results of the bench-scale study for samples 1c, 2c, and 3c show that at least ½ teaspoon is needed per 200 mL of sewage solids to treat the sewage solids to EPA standards. The ½ teaspoon dosage was used on sample WW-2, which had a

lower COD and BOD than the other two samples. To estimate the volume of lime needed to treat the sewage solids, a more conservative ¾ teaspoon lime was used per 200 mL sewage solids.

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4. QUALITY ASSURANCE REVIEW

Laboratory Quality Assurance/ Quality Control (QA/QC) data associated with the analysis of project samples have been reviewed to evaluate the integrity of the analytical data generated during the September 2011 site characterization sampling at the Former BIA School Day Tanks in Napaskiak, Alaska. Drinking water samples, groundwater samples, and soil samples were shipped to TestAmerica in Anchorage, Alaska and results were reported in two sample delivery groups (SDG's), AUI0080 and AUI0093. PAH, SPLP DRO, and SPLP PAH samples were subcontracted to TestAmerica in Spokane, Washington. Samples were collected, reported, and shipped in general accordance with the DEC-approved work plan (OASIS 2011).

All data were reviewed in accordance with United States Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Methods (EPA 2008) and DEC regulatory guidance documents (DEC 2005; 2008; 2009; 2010). This data review focused on the following QC parameters and their effect on the quality of data and usability: sample handling and chain-of-custody documentation; holding time compliance; field QC (trip blanks, field duplicates); laboratory QC (method blanks, laboratory control samples (LCS) and LCS duplicates (LCSD), surrogates, matrix spikes (MS) and MS duplicates (MSD)); method reporting limits and completeness.

All water sample results were within quality control limits and none were qualified. Several soil samples have been qualified as estimated based on the following QC criteria:

- PAH samples were analyzed outside of the method holding time. The associated results are flagged J-H for positive results and UJ-H for non-detect (ND) results.
- The field duplicate relative percent differences (RPD's) for the duplicate pair collected from test pit C7 were outside control limits for GRO, benzene, and xylenes; the associated results are flagged JD.
- Laboratory duplicate RPDs were outside control limits for DRO, GRO, and xylenes; the associated results are flagged J for positive results and UJ for ND results.
- LCS/LCSD RPDs were outside control limits for BTEX; the associated results are flagged JL for positive results and UJL for ND results.
- Surrogate recoveries were outside control limits for GRO, BTEX, and PAH; the associated results are flagged JS.

Sample results are considered usable for project objectives. The full QA/QC report and DEC Laboratory Data Review Checklists are included in Appendix C with the laboratory reports.

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5. CONCEPTUAL SITE MODEL

This section presents a human health CSM for the site. CSM Scoping forms are included in Appendix D. This CSM is based on the assumption of continuing soil impacts in this area.

5.1. Receptor Profile

Receptors for the current scenario include residents, construction workers, subsistence harvesters and consumers, and site visitors and trespassers. The LKSD has plans to build a new school on the former BIA School site in 2012, so school children, faculty, and staff can be included as potential future receptors.

5.2. Exposure Pathways

At areas A, B, C, and D contamination is present in surface soils. The distribution of contamination at Area C also includes contamination as deep as 8 feet bgs. Increasing concentrations with depth at Area C suggest that contamination may have migrated to the groundwater table and then spread as a light non-aqueous phase liquid (LNAPL).

Due to the shallow and deeper depth of soil contamination, and the possible presence of both volatiles and PAH compounds, the soil ingestion, dermal contact, and outdoor air inhalation pathways are potentially complete. Napaskiak residents are living in the buildings near the site and a new school is planned for this area, so the indoor air pathway is also potentially complete.

The presence of shallow groundwater and present groundwater use in the area make the groundwater ingestion, contact and inhalation of volatile compounds potentially complete exposure pathways.

Assuming subsistence activities in this area, potential exposure to harvesters and consumers could occur.

While the site is close to Napaskiak Slough, the river is silty and very cold and would be unlikely to be used for drinking water or swimming making the surface water ingestion/contact and sediment contact pathways incomplete. Table 9 summarizes the potential exposure pathways.

Table 9: POTENTIAL EXPOSURE PATHWAYS

Exposure Pathway	Pathway Complete?	Discussion
Incidental soil ingestion	Yes	Soil contamination near and beneath former ASTs between 0 and 3 feet bgs.
Dermal absorption	Yes	Contaminated soil and groundwater above 15 feet bgs.
Ingestion of groundwater	No	Drinking water wells in the area were not impacted during the 2011 sampling event.

Exposure Pathway	Pathway Complete?	Discussion
Ingestion/contact of surface water/sediment	No	Silty water in slough is not used for drinking water. Swimming unlikely due to water temperature.
Ingestion of wild food	Yes	Further data would be needed to evaluate.
Inhalation of outdoor air	Yes	Soil is impacted between the surface and 15 feet bgs. BTEX compounds exceed cleanup levels in Area C.
Inhalation of indoor air	Yes	New school to be built on the site

6. CONCLUSIONS

A discussion of the project findings is presented in this section. The results from the drinking water, groundwater, and soil assessments were used to update the conceptual site model and to estimate the volume of contaminated soil that may need to be removed before building the new school.

6.1. Groundwater and Drinking Water

During normal to low water flow on the Kuskokwim River, it would be reasonable to assume that the groundwater would flow to the northwest toward the river and downstream. During high water on the Kuskokwim River, however, the groundwater flow may reverse and groundwater could flow toward the southwest as the Kuskokwim River became a losing stream.

As there is no way to determine an absolute upgradient direction from the site, it is possible that the groundwater impacts in both WP-2 and WP-3 may be associated with releases from the project area. As WP-1 did not produce enough water to collect a sample, it is unknown whether the groundwater between the school and the site is impacted. As mentioned in Section 3.1, no VOCs were detected in the school or community wells.

No DRO samples were collected from the drinking water wells. Diesel contains both volatile and semi-volatile components. Though VOCs were not detected in the drinking water, the VOC analysis does not cover semi-volatile components. OASIS recommends that the wells be sampled for DRO during one of the regular drinking water sampling events.

6.2. Soil Impacts

Figure 8 presents the estimated extents of soil that exceeds the DEC migration to groundwater cleanup level for DRO and which would be slated for excavation if the new school were to be built at this site.

Many test pit samples exceeded the DRO ingestion and inhalation cleanup levels as well as the MTG cleanup levels. OASIS recommends removing the top 2 feet of soil from the impacted areas. This will eliminate the dermal contact and ingestion pathways.

The school is designed to be constructed on pilings and the area beneath the school will not be enclosed. This should reduce vapor intrusion into the buildings and minimize the indoor air inhalation pathway. OASIS recommends enclosing the space beneath the school with chain link fence to keep receptors out. Institutional controls may also be required to prevent soil excavation between 2 feet bgs without appropriate safeguards.

The proposed excavations have been partitioned into areas containing greater than 1000 mg/kg DRO and those containing less than 1000 mg/kg DRO in the top two feet of soil. These divisions are predicated on approval from the DEC to remove only the top 2 feet of soil from the site and on the SPLP results. Based on the two SPLP samples,

OASIS estimates that DRO in soil at concentrations greater than 1,000 mg/kg may leach into the substrate. In order for contaminated soil to be transported to a landfill for disposal, the contaminant must not be leachable.

The excavation areas are based on DRO analytical results or PID screening results where the top two feet of a test pit was not analyzed. OASIS compared DRO and PID results from samples that were sent for analysis to estimate DRO concentrations for these test pits.

The proposed excavations in Areas A and B are in areas containing greater than 1,000 mg/kg DRO and comprise estimated volumes of 110 and 30 loose cubic yards (LCY), respectively. The term LCY is used to describe the expansion of soil after it is removed from the ground (fluff factor). The single proposed excavation covering Areas C and D has been divided into two areas containing less than and greater than 1,000 mg/kg each. The total volume of the excavation is estimated at 850 LCY. The estimated volume containing greater than 1,000 mg/kg DRO is 485 LCY and the estimated volume containing less than 1,000 mg/kg DRO is 365 LCY. A fluff factor of 1.25 was used to estimate soil volumes.

6.3. Abandoned Sewage Lagoon Assessment

The COD and BOD results indicate that the sewage lagoon contains sewage solids.

The Sludge Judge® samples were collected from the edges of the lagoon rather than throughout the entire lagoon, making accurate volume estimation difficult. For this reason, an uncertainty factor of 2 was applied to the bio-solid and water volume estimates shown in Table E1 in Appendix E.

Based on an area of 25 feet by 34 feet and an average thickness of 0.33 feet (4 inches), the sewage lagoon contains approximately 21 cubic yards of sewage solids. Based on an average water depth of 1.4 feet, the sewage lagoon contains approximately 18,000 gallons of water.

In order to leave the sewage solids in place, the lagoon must be de-watered and the sewage solids must be treated. OASIS proposes that the most feasible in-situ treatment for the lagoon is the addition of quicklime to raise the pH of the sewage solids.

Table E2 in Appendix E applies the dose rate of hydrated lime, used in the bench-scale study, to the estimated volume of sewage solids. These calculations indicated that approximately 1,144 pounds of hydrated lime would be required to treat all the sewage solids present in the sewage lagoon.

Either of two types of lime could be used to treat the sewage solids: hydrated lime or quicklime. Hydrated lime was used in the bench-scale study. Quicklime is commonly used to treat sewage solids and to dry muddy construction sites. Because of high shipping costs to Napaskiak, use of quicklime would likely be less expensive because it avoids shipping the water entrained in hydrated lime. Quicklime has two advantages:

- It absorbs a significant amount of water, improving the handleability of the sewage solids; and

- When quicklime is mixed with sewage solids, an exothermic reaction occurs resulting in water evaporation, reducing sewage solids volume.

As shown Table E2, approximately 900 pounds of quicklime would be required to treat the estimated volume of the sewage solids in the lagoon.

6.4. Proposed Cleanup Technique

The applicable regulation (18 AAC 75.335(c)(5)) requires that a site characterization report: "proposes cleanup techniques for the site."

6.4.1. Alternatives Considered

To that end, a variety of remediation alternatives were considered:

- Alternative 1: Excavation and Offsite Disposal
- Alternative 2: Onsite Treatment and Disposal
- Alternative 3: Aggressive Onsite Treatment
- Alternative 4: In Place Landfarming

In addition to the four alternatives listed above, use of chemical oxidation was also considered. The available literature indicates that that potassium permanganate is the oxidant most likely to be effective in treating the petroleum contaminants present at the site (Interstate Technology & Regulatory Council, 2005). For each of a variety of oxidants, the guidance document categorizes contaminants of concern as being amenable, reluctant, or recalcitrant to oxidation. Fuel components such as PAHs, toluene, ethylbenzene, and xlyenes are considered amenable to treatment with potassium permanganate. Benzene is considered a reluctant contaminant of concern to treat with potassium permanganate. In addition, potassium permanganate is a solid (which would make transportation easier) and relatively safe to handle. However, high contaminant concentrations would drive extremely high oxidant demand, and make chemical oxidation cost prohibitive. Thus, chemical oxidation was not developed further as an alternative.

Appendix F presents cost estimates for each of the evaluated remedial alternatives, along with a detailed basis of estimate and list of cost assumptions. Table 10 compares the four alternatives.

Table 10: SUMMARY EVALUATION OF ALTERNATIVES

Alternative	Advantages	Disadvantages	Estimated Cost
Alternative 1: Excavation and Offsite Disposal	Highly contaminated soil would be shipped off site	Logistically complex High Cost	$1.6M

Alternative	Advantages	Disadvantages	Estimated Cost
Alternative 2: Onsite Treatment and Disposal	100 tons of the most highly contaminated soil would be shipped off site	Two field seasons required for treatment Would require pilot testing to ensure feasibility	$934K
Alternative 3: Aggressive Onsite Treatment	Less complex than Alternatives 1 or 2	Highly contaminated soils can be difficult to biodegrade Would require pilot testing to ensure feasibility	$498K
Alternative 4: In Place Landfarming	Logistically simple	No commitment made to attain specific cleanup levels	$219K

All of the alternatives considered would limit soil to be excavated and/or treated to soil within 2 feet of ground surface. In addition, none of the alternatives considered would address smear zone contamination that is present at the site. The cost estimates include funds to treat sewage solids with quicklime and to backfill the sewage lagoon.

Alternative 1 was the most aggressive alternative considered. Under Alternative 1, soil contaminated at a concentration greater than 1,000 mg/kg would be shipped off site for disposal. This would necessitate mobilizing shipping containers to the site, excavating, manifesting, packaging, and shipping this contaminated soil to a Resource Conservation and Recovery Act (RCRA) Subtitle D landfill. The remainder of the soil would be used as cover material at the Napaskiak landfill. This alternative would rapidly address the most contaminated soil, but would be logistically challenging and cost-prohibitive.

Under Alternative 2, the volume of soil to be shipped off site would be limited to 100 tons of the most highly contaminated soil. Soil contaminated at concentrations less than 1,000 mg/kg would be shipped to the landfill and used as landfill cover material. The remainder of the contaminated soil would be mixed and biologically treated on site, prior to being shipped to the landfill for use as cover material. A pilot study would be conducted to assess the feasibility of the proposed treatment. Treatment would require an estimated two field seasons.

Under Alternative 3, soil contaminated at concentrations less than 1,000 mg/kg would be shipped to the landfill and used as landfill cover material. Soils with higher contaminant concentrations would be excavated and thoroughly mixed in small batches. Chemicals such as lime and fertilizer would be added to encourage contaminant biodegradation. The chemicals to be added and treatment regime would be defined during a treatability pilot study. It is estimated that one field season of treatment would be required. Confirmation samples would be collected to demonstrate treatment goals have been attained. Then the treated soils would used as cover material at the landfill.

Alternative 4 would treat all contaminated soil at depths of up to 2 feet below ground surface with in place landfarming. Within each zone of contamination, the contaminated soil would be thoroughly mixed and amended using lime and fertilizer. Over the course of one field season, the soil would be remixed approximately once every two weeks. Following treatment, samples would be collected and analyzed to assess the successfulness of treatment. The treated soil would be left in place, and a geotextile and a two-foot cover would be placed across the site to act as a construction platform. The two-foot cover will also act to prevent direct contact to the contaminated soil.

6.4.2. Selected Remedial Alternative

Of the available alternatives, Alternative 4 (In Place Landfarming) appears to be the most appropriate. The high cost of the other alternatives would likely prevent LKSD from building the proposed school on the BIA site, which may prevent any remediation from taking place as part of the school construction project. LKSD is not legally obligated to address BIA-caused contamination as part of the school construction project and the additional costs could make the project untenable.

None of the alternatives considered will be able to attain the migration to groundwater cleanup level (250 mg/kg). Nor will any of these alternatives be able to address groundwater contamination that was measured above Table C standards.

The aggressive soil mixing under Alternative 4 is expected to provide two benefits: reduce contaminant concentrations to below the level at which they are toxic to bacteria (speeding biodegradation) and address potential human health risk via the ingestion and inhalation pathways. An area of stained soil sampled in 2011 contained a DRO concentration of 38,900 mg/kg. Otherwise, the maximum DRO concentration detected at the site in 2011 was 26,100 mg/kg. Fuel concentrations greater than approximately 25,000 mg/kg are considered inhibitory and/or toxic to aerobic bacteria (EPA 2004). Thus, soil concentrations greater than this threshold tend to decrease only very slowly over time. Aggressive soil mixing will reduce soil concentration to below this threshold, allowing microorganisms conditions in which they can survive. The initial mixing is also expected to reduce average soil concentrations below 10,250, the DRO cleanup standard for the ingestion exposure pathway. (The [outdoor] inhalation standard is slightly higher at 12,500 mg/kg.) The proposed geotextile and two-foot construction cap will complete.

Microorganisms capable of biodegrading fuel contaminants are ubiquitous in the subsurface. In addition to the toxic effects of high fuel concentrations, the ability of these organisms to degrade fuel contamination may be limited by extreme pH levels, lack of nutrients, or lack of oxygen. The proposed mixing and addition of lime and fertilizer will improve conditions for the microbial growth. Frequent turning of the soil will help unsure that sufficient oxygen is available to increase the rate of fuel degradation. However the selected alternative does not commit the school district to attaining a specified rate of degradation.

To protect the local community during the initial soil mixing and subsequent remixing, fencing and signage will be placed around the treatment area.

The school will be constructed on piles. This construction technique will create an air gap between the contamination and the building. A chain link fence will be placed along the perimeter of the school buildings, between the bottom of the buildings and the ground surface. This will help prevent contaminant vapors from accumulating within the building.

7. REFERENCES

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TABLES

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TABLE 2: DRINKING WATER SAMPLE RESULTS
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
SEPTEMBER 2011
(all results in mg/L)

Analyte	ADEC MCL's	Sample ID		
		ND-11-DW-01	ND-11-DW-02	NK-11-DW-03
1,1,1,2-Tetrachloroethane	--	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane	0.2	ND (0.001)	ND (0.001)	ND (0.001)
1,1,2,2-Tetrachloroethane	0.0043	ND (0.001)	ND (0.001)	ND (0.001)
1,1,2-Trichloroethane	0.005	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	7.3	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloropropene	0.0085	ND (0.001)	ND (0.001)	ND (0.001)
1,2,3-Trichlorobenzene	--	ND (0.001)	ND (0.001)	ND (0.001)
1,2,3-Trichloropropane	0.00012	ND (0.001)	ND (0.001)	ND (0.001)
1,2,4-Trichlorobenzene	0.07	ND (0.001)	ND (0.001)	ND (0.001)
1,2,4-Trimethylbenzene	1.8	ND (0.001)	ND (0.001)	ND (0.001)
1,2-Dibromo-3-chloropropane	--	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dibromoethane	0.00005	ND (0.001)	ND (0.001)	ND (0.001)
1,2-Dichlorobenzene	0.6	ND (0.001)	ND (0.001)	ND (0.001)
1,2-Dichloroethane (EDC)	0.005	ND (0.001)	ND (0.001)	ND (0.001)
1,2-Dichloropropane	0.005	ND (0.001)	ND (0.001)	ND (0.001)
1,3,5-Trimethylbenzene	1.8	ND (0.001)	ND (0.001)	ND (0.001)
1,3-Dichlorobenzene	3.3	ND (0.001)	ND (0.001)	ND (0.001)
1,3-Dichloropropane	--	ND (0.001)	ND (0.001)	ND (0.001)
1,4-Dichlorobenzene	0.075	ND (0.001)	ND (0.001)	ND (0.001)
2,2-Dichloropropane	--	ND (0.001)	ND (0.001)	ND (0.001)
2-Butanone	22	ND (0.01)	ND (0.01)	ND (0.01)
2-Chlorotoluene	--	ND (0.001)	ND (0.001)	ND (0.001)
2-Hexanone	--	ND (0.01)	ND (0.01)	ND (0.01)
4-Chlorotoluene	--	ND (0.001)	ND (0.001)	ND (0.001)
4-Methyl-2-pentanone	--	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	33	ND (0.025)	ND (0.025)	ND (0.025)
Benzene	0.005	ND (0.0002)	ND (0.0002)	ND (0.0002)
Bromobenzene	--	ND (0.001)	ND (0.001)	ND (0.001)
Bromochloromethane	--	ND (0.001)	ND (0.001)	ND (0.001)
Bromodichloromethane	0.014	ND (0.001)	ND (0.001)	ND (0.001)
Bromoform	0.11	ND (0.001)	ND (0.001)	ND (0.001)
Bromomethane	0.051	ND (0.005)	ND (0.005)	ND (0.005)
Carbon disulfide	3.7	ND (0.001)	ND (0.001)	ND (0.001)
Carbon tetrachloride	0.005	ND (0.001)	ND (0.001)	ND (0.001)
Chlorobenzene	0.1	ND (0.001)	ND (0.001)	ND (0.001)
Chloroethane	0.29	ND (0.001)	ND (0.001)	ND (0.001)
Chloroform	0.14	ND (0.001)	ND (0.001)	ND (0.001)
Chloromethane	0.066	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene	0.07	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,3-Dichloropropene	--	ND (0.001)	ND (0.001)	ND (0.001)
Dibromochloromethane	0.01	ND (0.001)	ND (0.001)	ND (0.001)
Dibromomethane	0.37	ND (0.001)	ND (0.001)	ND (0.001)
Dichlorodifluoromethane	--	ND (0.001)	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	ND (0.001)	ND (0.001)	ND (0.001)
Hexachlorobutadiene	--	ND (0.002)	ND (0.002)	ND (0.002)
Isopropylbenzene	3.7	ND (0.001)	ND (0.001)	ND (0.001)
m,p-Xylene	--	ND (0.002)	ND (0.002)	ND (0.002)
Methyl tert-butyl ether	0.47	ND (0.001)	ND (0.001)	ND (0.001)

TABLE 2: DRINKING WATER SAMPLE RESULTS
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
SEPTEMBER 2011
(all results in mg/L)

Analyte	ADEC MCL's	Sample ID		
		ND-11-DW-01	ND-11-DW-02	NK-11-DW-03
Methylene chloride	0.005	ND (0.01)	ND (0.01)	ND (0.01)
Naphthalene	0.73	ND (0.002)	ND (0.002)	ND (0.002)
n-Butylbenzene	0.37	ND (0.001)	ND (0.001)	ND (0.001)
n-Propylbenzene	0.37	ND (0.001)	ND (0.001)	ND (0.001)
o-Xylene	--	ND (0.001)	ND (0.001)	ND (0.001)
p-Isopropyltoluene	--	ND (0.001)	ND (0.001)	ND (0.001)
sec-Butylbenzene	0.37	ND (0.001)	ND (0.001)	ND (0.001)
Styrene	0.1	ND (0.001)	ND (0.001)	ND (0.001)
tert-Butylbenzene	0.37	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene	0.005	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1	ND (0.001)	ND (0.001)	ND (0.001)
trans-1,2-Dichloroethene	0.1	ND (0.001)	ND (0.001)	ND (0.001)
trans-1,3-Dichloropropene	--	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene	0.005	ND (0.001)	ND (0.001)	ND (0.001)
Trichlorofluoromethane	11	ND (0.001)	ND (0.001)	ND (0.001)
Vinyl chloride	0.002	ND (0.0002)	ND (0.0002)	ND (0.0002)
Xylenes (total)	10	ND (0.003)	ND (0.003)	ND (0.003)

Notes:
-- Not published
MCL - Maximum contaminant level
mg/L - milligram per liter
Shaded values denote reporting limits above the MCL

TABLE 3: GROUNDWATER SAMPLE RESULTS
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
SEPTEMBER 2011
(all results in milligrams per liter)

Method	Analyte	DEC Cleanup Level	Sample ID	
			NK-11-WP-02	NK-11-WP-03
AK102	Diesel Range Organics	1.5	**2.42**	**1.68**
AK103	Residual Range Organics	1.1	0.655	ND (0.427)
AK101	Gasoline Range Organics	2.2	0.179	ND (0.05)
8021B (VOC)	Benzene	0.005	0.0599	ND (0.0005)
	Toluene	1	0.0841	ND (0.0005)
	Ethylbenzene	0.7	0.147	ND (0.0005)
	Xylenes (total)	10	0.481	ND (0.0015)
8260B (VOC)	1,1,1,2-Tetrachloroethane	0.005	ND (0.01)	ND (0.001)
	1,1,1-Trichloroethane	0.2	ND (0.01)	ND (0.001)
	1,1,2,2-Tetrachloroethane	0.0043	ND (0.01)	ND (0.001)
	1,1,2-Trichloroethane	0.005	ND (0.01)	ND (0.001)
	1,1-Dichloroethane	7.3	ND (0.01)	ND (0.001)
	1,1-Dichloroethene	0.007	ND (0.01)	ND (0.001)
	1,1-Dichloropropene		ND (0.01)	ND (0.001)
	1,2,3-Trichlorobenzene		ND (0.01)	ND (0.001)
	1,2,3-Trichloropropane	0.00012	ND (0.01)	ND (0.001)
	1,2,4-Trichlorobenzene	0.07	ND (0.01)	ND (0.001)
	1,2,4-Trimethylbenzene	1.8	0.247	ND (0.001)
	1,2-Dibromo-3-chloropropane		ND (0.05)	ND (0.005)
	1,2-Dibromoethane		ND (0.01)	ND (0.001)
	1,2-Dichlorobenzene	0.6	ND (0.01)	ND (0.001)
	1,2-Dichloroethane (EDC)	0.005	ND (0.01)	ND (0.001)
	1,2-Dichloropropane	0.005	ND (0.01)	ND (0.001)
	1,3,5-Trimethylbenzene	1.8	0.111	ND (0.001)
	1,3-Dichlorobenzene	3.3	ND (0.01)	ND (0.001)
	1,3-Dichloropropane		ND (0.01)	ND (0.001)
	1,4-Dichlorobenzene	0.075	ND (0.01)	ND (0.001)
	2,2-Dichloropropane		ND (0.01)	ND (0.001)
	2-Butanone	22	ND (0.1)	ND (0.01)
	2-Chlorotoluene		ND (0.01)	ND (0.001)
	2-Hexanone		ND (0.1)	ND (0.01)
	4-Chlorotoluene		ND (0.01)	ND (0.001)
	4-Methyl-2-pentanone		ND (0.1)	ND (0.01)
	Acetone	33	ND (0.25)	ND (0.025)
	Benzene	0.005	0.046	ND (0.0002)
	Bromobenzene		ND (0.01)	ND (0.001)
	Bromochloromethane		ND (0.01)	ND (0.001)
	Bromodichloromethane	0.014	ND (0.01)	ND (0.001)
	Bromoform	0.11	ND (0.01)	ND (0.001)
	Bromomethane	0.051	ND (0.05)	ND (0.005)
	Carbon disulfide	3.7	ND (0.01)	ND (0.001)
	Carbon tetrachloride	0.005	ND (0.01)	ND (0.001)
	Chlorobenzene	0.1	ND (0.01)	ND (0.001)
	Chloroethane	0.29	ND (0.01)	ND (0.001)
	Chloroform	0.14	ND (0.01)	ND (0.001)
	Chloromethane	0.066	ND (0.05)	ND (0.005)
	cis-1,2-Dichloroethene	0.07	ND (0.01)	ND (0.001)
	cis-1,3-Dichloropropene		ND (0.01)	ND (0.001)

TABLE 3: GROUNDWATER SAMPLE RESULTS
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
SEPTEMBER 2011
(all results in milligrams per liter)

Method	Analyte	DEC Cleanup Level	Sample ID			
			NK-11-WP-02		NK-11-WP-03	
8260B (VOC)	Dibromochloromethane	0.01	ND (0.01)		ND (0.001)	
	Dibromomethane	0.37	ND (0.01)		ND (0.001)	
	Dichlorodifluoromethane		ND (0.01)		ND (0.001)	
	Ethylbenzene	0.7	0.108		ND (0.001)	
	Hexachlorobutadiene		ND (0.02)		ND (0.002)	
	Isopropylbenzene	3.7	ND (0.01)		ND (0.001)	
	m,p-Xylene	10	ND (0.02)		ND (0.002)	
	Methyl tert-butyl ether	0.47	ND (0.01)		ND (0.001)	
	Methylene chloride	0.005	ND (0.1)		ND (0.01)	
	Naphthalene	0.73	ND (0.02)		ND (0.002)	
	n-Butylbenzene	0.37	ND (0.01)		ND (0.001)	
	n-Propylbenzene	0.37	ND (0.01)		ND (0.001)	
	o-Xylene	10	0.259		ND (0.001)	
	p-Isopropyltoluene		ND (0.01)		ND (0.001)	
	sec-Butylbenzene	0.37	ND (0.01)		ND (0.001)	
	Styrene	0.1	ND (0.01)		ND (0.001)	
	tert-Butylbenzene	0.37	ND (0.01)		ND (0.001)	
	Tetrachloroethene	0.005	ND (0.01)		ND (0.001)	
	Toluene	1	ND (0.01)		ND (0.001)	
	trans-1,2-Dichloroethene	0.1	ND (0.01)		ND (0.001)	
	trans-1,3-Dichloropropene		ND (0.01)		ND (0.001)	
	Trichloroethene	0.005	ND (0.01)		ND (0.001)	
	Trichlorofluoromethane	11	ND (0.01)		ND (0.001)	
	Vinyl chloride	0.002	ND (0.002)		ND (0.0002)	
	Xylenes (total)	10	0.344		ND (0.003)	
8270 SIM (PAH)	1-Methylnapthalene	0.15	0.045	J-H	ND (0.00032)	UJ-H
	2-Methylnaphthalene	0.15	0.0627	J-H	ND (0.00032)	UJ-H
	Acenaphthene	2.2	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Acenaphthylene	2.2	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Anthracene	11	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Benzo (a) anthracene	0.0012	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Benzo (a) pyrene	0.0002	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Benzo (b) fluoranthene	0.0012	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Benzo (ghi) perylene	1.1	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Benzo (k) fluoranthene	0.012	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Chrysene	0.12	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Dibenzo (a,h) anthracene	0.00012	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Fluoranthene	1.5	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Fluorene	1.5	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Indeno (1,2,3-cd) pyrene	0.0012	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Naphthalene	0.73	0.0367	J-H	ND (0.00032)	UJ-H
	Phenanthrene	11	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H
	Pyrene	1.1	ND (0.000193)	UJ-H	ND (0.00032)	UJ-H

Notes:
DEC - Alaska Department of Environmental Conservation
mg/L - milligrams per liter
Bolded and shaded values exceed DEC Table C groundwater cleanup levels

TABLE 4: SOIL SAMPLE RESULTS - DRO, RRO, GRO, BTEX
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
(all results in mg/kg except as noted)

Test Pit ID	Depth (ft)	Sample ID	PID Results (ppmV)	Analytical Result (mg/kg)							
				DRO		RRO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes (total)
				No SPLP	SPLP	No SPLP	No SPLP	No SPLP	No SPLP	No SPLP	No SPLP
DEC Method Two Cleanup Levels			N/A	250	1.5	11000	300	0.025	6.5	6.9	63
A1	0.5	NK-11-SS-01	0.7	156 J	NA	ND (112)	ND (4.75)	ND (0.0285)	ND (0.0571)	ND (0.0571)	ND (0.171)
A2	2	NK-11-SS-02	>350	**19800**	NA	ND (3270)	36.9 JS	ND (0.0206) UJS	0.209 JS	1.19 JS	6.34 JS
A3	0.5	NK-11-SS-03	0.3	ND (27.8)	NA	ND (69.4)	ND (3.76)	ND (0.0226)	ND (0.0451)	ND (0.0451)	ND (0.135)
A4	0.5	NK-11-SS-04	1.9	40.9	NA	ND (78.4)	ND (3.78)	ND (0.0227)	ND (0.0454)	ND (0.0454)	ND (0.136)
A5	5	NK-11-SS-05	>280	110	NA	ND (145)	23.4 JS	ND (0.0301) UJS	0.082 JS	0.0716 JS	0.473 JS
A6	6	NK-11-SS-26	185	ND (38.9)	NA	ND (97.3)	ND (3.34)	ND (0.0201) UJL	ND (0.0402) UJL	ND (0.0402) UJL	ND (0.121) UJL
B1	4	NK-11-SS-06	>300	122	NA	ND (108)	11.5	ND (0.0195)	0.0415	0.519	1.40
B2	2	NK-11-SS-07	72.6	94.8	NA	ND (69.0)	5.28	ND (0.0233)	ND (0.0467)	ND (0.0467)	0.209
B3	1	NK-11-SS-08	>485	**2940**	NA	ND (119)	80.1 JS	ND (0.0289) UJS	0.255 JS	0.366 JS	1.28 JS
B4	4	NK-11-SS-09	41.2	152	NA	ND (87.5)	ND (3.80)	ND (0.0228)	ND (0.0457)	ND (0.0457)	ND (0.137)
B5	0.5	NK-11-SS-10	4.1	ND (37.3)	NA	ND (93.1)	ND (3.82)	ND (0.0229)	ND (0.0459)	ND (0.0459)	ND (0.138)
B6	6	NK-11-SS-27	68	ND (42.1)	NA	ND (105)	5.98	ND (0.0208) UJL	0.0451 JL	0.103 JL	0.38 JL
C1	0.5	NK-11-SS-17	85.2	**287**	NA	114	ND (7.56)	ND (0.0454)	ND (0.0908)	ND (0.0908)	ND (0.272)
C2	8	NK-11-SS-11	>1350	**5450**	NA	ND (2770)	250 JS	**0.274 JS**	0.914 JS	12.3 JS	46.5 JS
C2 (dup)	8	NK-11-SS-12	>1350	**6960**	NA	ND (1750)	207	**0.267**	0.766	8.18	32.8
C3	8	NK-11-SS-13	>1100	**14100**	NA	ND (2000)	111	**0.182**	1.10	4.51	21.1
C4	8	NK-11-SS-20	>550	ND (48.2) UJ	NA	ND (120)	ND (2.72)	ND (0.0163)	ND (0.0327)	0.161	0.131
C5	4	NK-11-SS-21	>250	**1130**	NA	ND (79.5)	25.1	ND (0.0208)	ND (0.0416)	0.112	0.44
C6	0.5	NK-11-SS-22	1	ND (50.8)	NA	ND (127)	ND (4.59)	ND (0.0275) UJL	ND (0.0551) UJL	ND (0.0551) UJL, UJS	ND (0.165) UJL, UJS
C7	8	NK-11-SS-23	>1500	**15600**	**4.55**	ND (1830)	237 JD, JS	**0.137 JD, JL**	0.676 JL	5.00 JL	25.3 JD, JL
C7 (dup)	8	NK-11-SS-24	>1500	**15800**	NA	ND (1300)	480 JD, JS	**0.241 JD, JL, JS**	1.26 JL, JS	**8.44 JL, JS**	43.0 JD, JL, JS
C8	6	NK-11-SS-25	>450	**316**	0.712	ND (99.7)	51.6 JS	ND (0.0183) UJL	0.176 JL	0.236 JL	0.974 JL
D1	0.5	NK-11-SS-15	111	**26100**	NA	ND (2590)	16.6	ND (0.0594)	ND (0.119)	ND (0.119)	0.642
D2	0.5	NK-11-SS-14	2.5	**608**	NA	ND (110)	ND (4.15)	ND (0.0249)	ND (0.0498)	ND (0.0498)	ND (0.149)
D3	2	NK-11-SS-16	>260	**2420**	NA	ND (133)	6.59	ND (0.0215)	ND (0.0429)	0.0634	0.130
D4	0.5	NK-11-SS-18	2.9	200	NA	ND (88.3)	ND (4.07)	ND (0.0245)	ND (0.0489)	ND (0.0489)	ND (0.147)
D5	4	NK-11-SS-19	26.2	ND (39.3)	NA	ND (98.3)	ND (3.17)	ND (0.0190)	ND (0.0381)	ND (0.0381)	ND (0.114)

Notes:
DEC - Alaska Department of Environmental Conservation
DRO - Diesel-range organics
GRO - Gasoline-range organics
JD - Value is considered estimated due to RPD between primary and duplicate exceeding ADEC recommended limits. Refer to QAR for further details.
JS - Value is considered estimated due to surrogate recovery not meeting quality control criteria. Refer to QAR for further details.
UJS - Value is not detected and considered estimated due to surrogate recovery not meeting qu DEC - Alaska Department of Environmental Conservation
J - Value is estimated due to certain QC criteria not being met. Refer to QAR for further details.
UJ - Value is not-detected and considered estimated due to certain QC criteria not being met. Refer to QAR for further details.
UJL - Value is not-detected and considered estimated due to certain LCS/LCSD criteria not being met. Refer to QAR for further details.
JL - value is considered estimated due to certain LCS/LCSD criteria not being met. Refer to QAR for further details.
NA - Not analyzed
N/A - Not applicable
PID - photoionization detector results in parts per million by volume (ppmV)
SPLP - Result after Synthetic Precipitation Leaching Procedure (results and cleanup levels in mg/L)
RRO - Residual-range organics

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TABLE 5: SOIL SAMPLE RESULTS - POLYNUCLEAR AROMATIC HYDROCARBONS
NAPASKIAK FORMER BIA SCHOOL DAY TANKS SITE CHARACTERIZATION
SEPTEMBER 2011
(all results in mg/kg except as noted)

Analyte	DEC Cleanup Levels		Sample Location/ID						
			C3 - 8 feet bgs	C4 - 8 feet bgs	C7 - 8 feet bgs		C8 - 6 feet bgs		A6 - 6 feet bgs
			NK-11-SS-13	NK-11-SS-20	NK-11-SS-23		NK-11-SS-25		NK-11-SS-26
	Soil	Water	No SPLP	No SPLP	No SPLP	SPLP*	No SPLP	SPLP*	No SPLP
1-Methylnapthalene	6.2	0.15	**71 JS**	0.114	NA	NA	NA	NA	NA
2-Methylnaphthalene	6.1	0.15	**95 JS**	0.158	NA	NA	NA	NA	NA
Acenaphthene	180	2.2	2.01	ND (0.0133)	ND (0.858)	ND (0.0500)	0.024	ND (0.0500)	ND (0.0173)
Acenaphthylene	180	2.2	1.47	ND (0.0133)	ND (0.858)	ND (0.0500)	ND (0.0359)	ND (0.0500)	ND (0.0173)
Anthracene	3000	11	ND (0.0783)	ND (0.0133)	0.0364	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Benzo (a) anthracene	3.6	0.0012	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Benzo (a) pyrene	12	0.0002	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Benzo (b) fluoranthene	120	0.0012	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Benzo (ghi) perylene	38700	1.1	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Benzo (k) fluoranthene	2.1	0.0012	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Chrysene	360	0.12	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Dibenzo (a,h) anthracene	4	0.00012	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Fluoranthene	1400	1.5	ND (0.0783)	ND (0.0133)	0.0608	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Fluorene	220	1.5	1.2	ND (0.0133)	1.41	ND (0.0500)	0.0578	ND (0.0500)	ND (0.0173)
Indeno (1,2,3-cd) pyrene	41	0.0012	ND (0.0783)	ND (0.0133)	ND (0.0172)	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Naphthalene	20	0.73	**56.4 JS**	0.0916	**34.6**	0.237	1.21	ND (0.0500)	ND (0.0173)
Phenanthrene	3000	11	0.548	ND (0.0133)	0.466	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)
Pyrene	1000	1.1	ND (0.0783)	ND (0.0133)	0.050	ND (0.0500)	ND (0.0179)	ND (0.0500)	ND (0.0173)

Notes:
bgs - below ground surface
DEC - Alaska Department of Environmental Conservation
JS - Value is considered estimated due to surrogate recovery not meeting quality control criteria. Refer to QAR for further details.
NA - Not analyzed
SPLP - Result after Synthetic Precipitation Leaching Procedure (results and cleanup levels in mg/L)

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FIGURES

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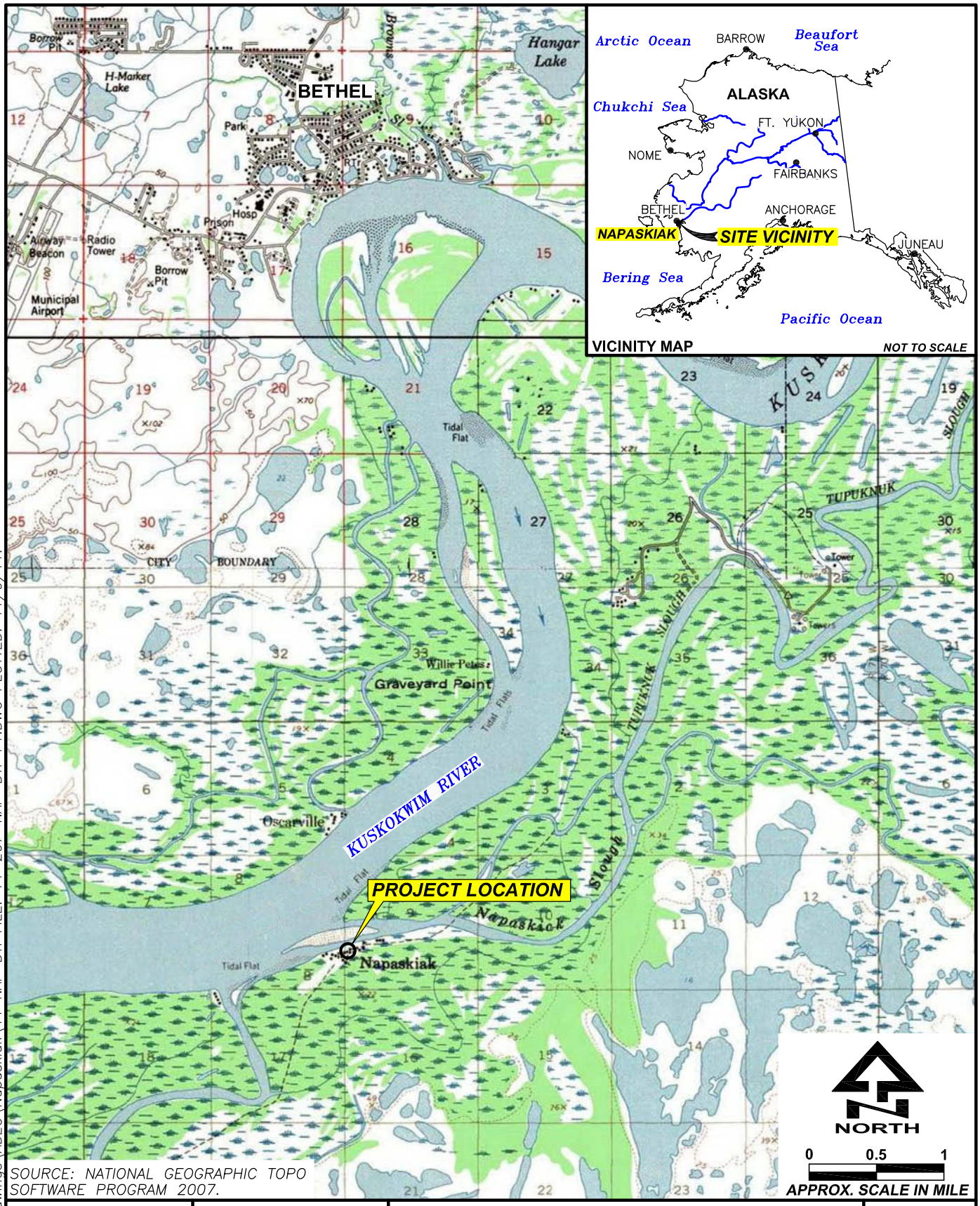

SOURCE: NATIONAL GEOGRAPHIC TOPO SOFTWARE PROGRAM 2007.

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oasis ENVIRONMENTAL

DATE: NOV. 2011
CHKD: L.C.N.
DRAWN: C.E.H
PROJ. No.: 14-207

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

SITE LOCATION MAP

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE

1

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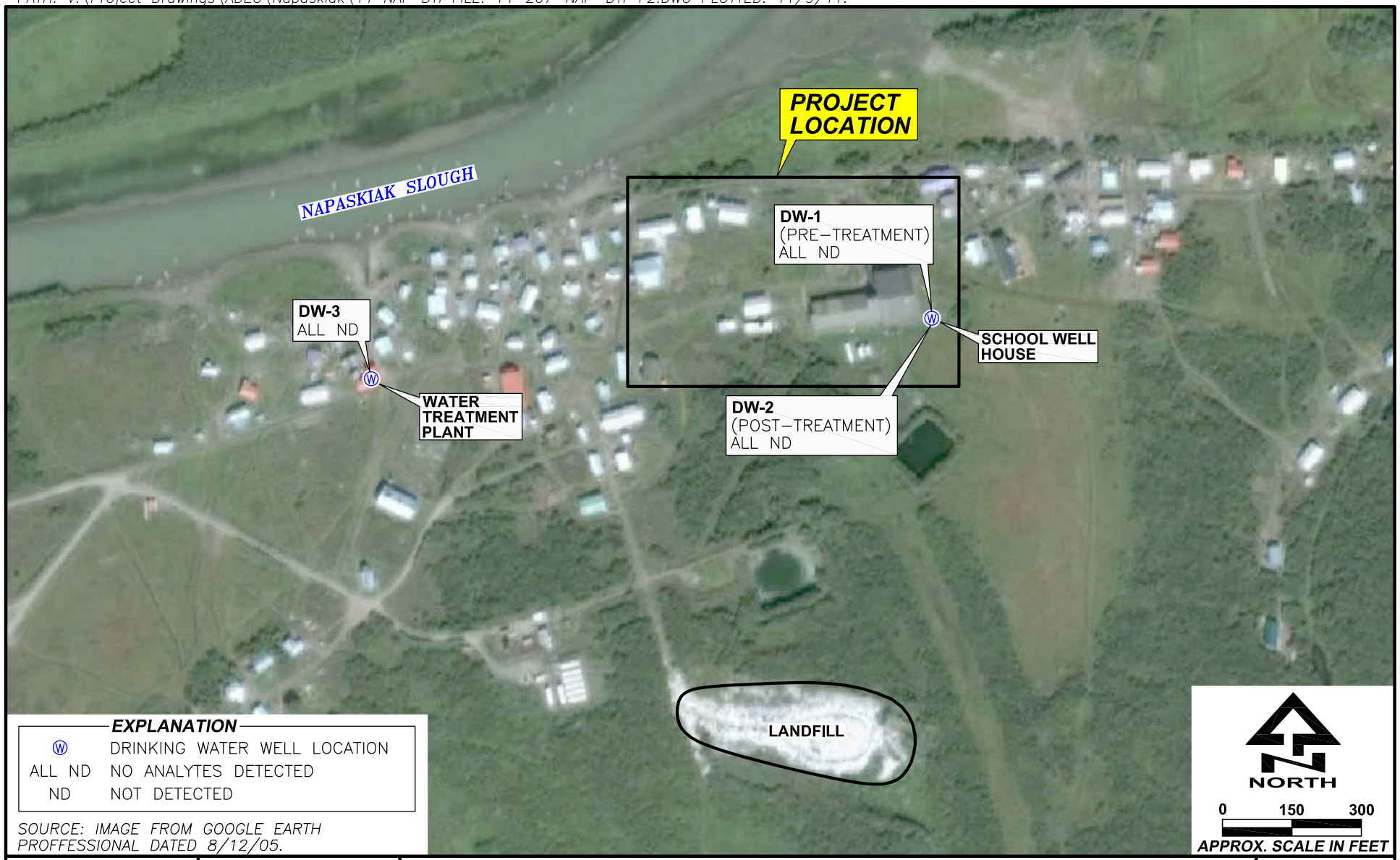

EXPLANATION

Ⓦ	DRINKING WATER WELL LOCATION
ALL ND	NO ANALYTES DETECTED
ND	NOT DETECTED

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

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PROJ. No.: 14-207

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SITE PLAN WITH DRINKING WATER RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE

2

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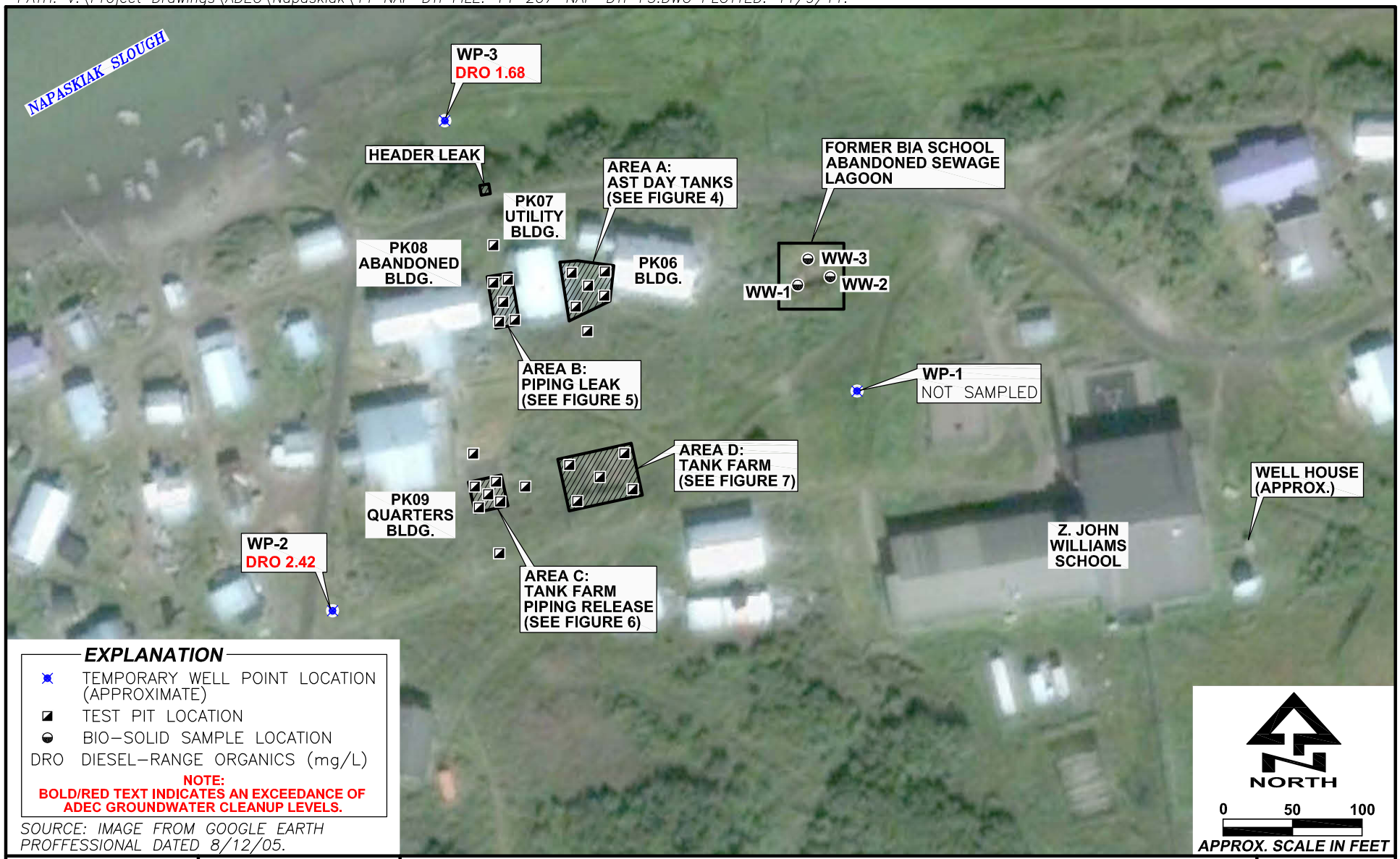
PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F3.DWG PLOTTED: 11/9/11.



EXPLANATION

- TEMPORARY WELL POINT LOCATION (APPROXIMATE)
- TEST PIT LOCATION
- BIO-SOLID SAMPLE LOCATION
- DRO DIESEL-RANGE ORGANICS (mg/L)

NOTE:
BOLD/RED TEXT INDICATES AN EXCEEDANCE OF ADEC GROUNDWATER CLEANUP LEVELS.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

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SITE DETAIL WITH GROUNDWATER DRO RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE

3

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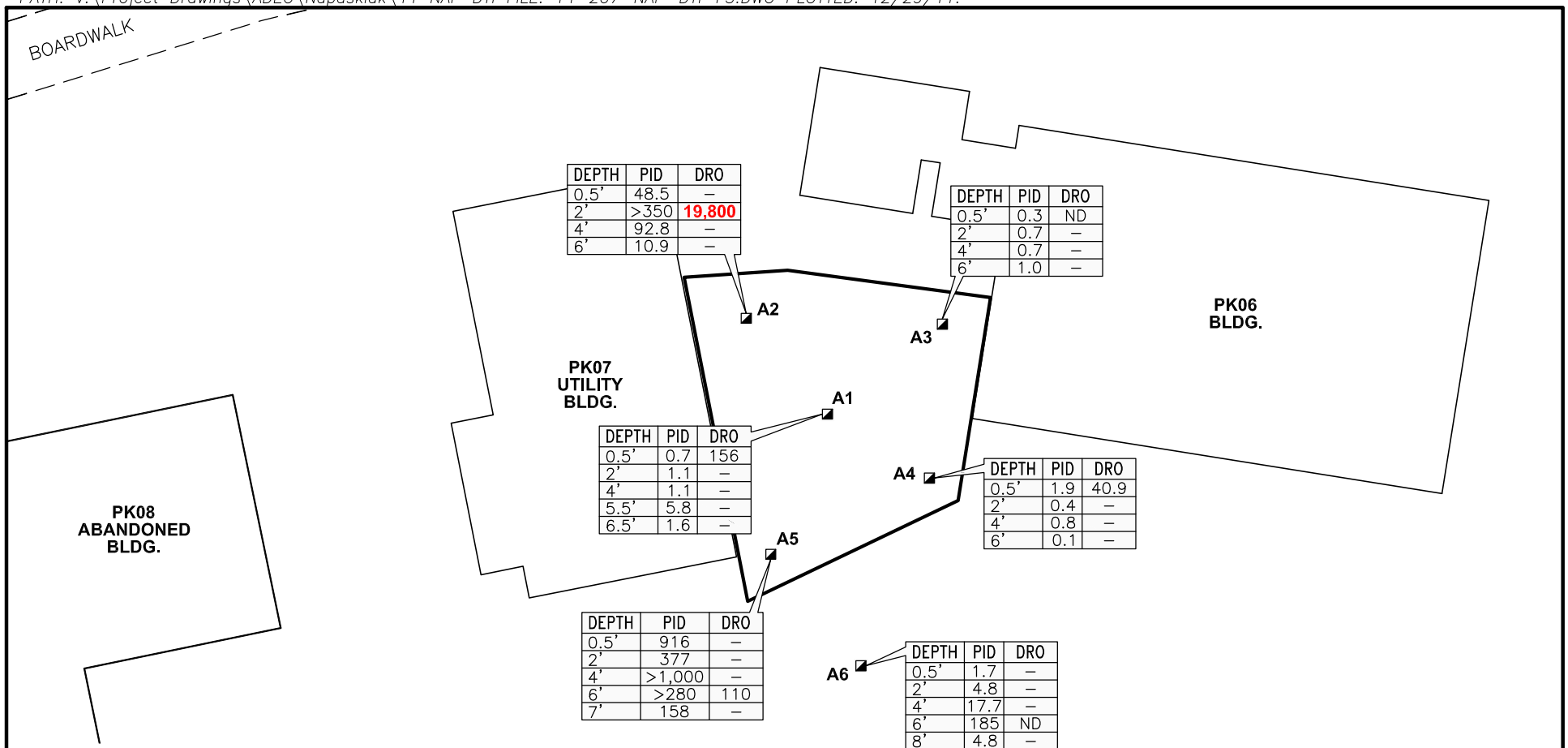
PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F3.DWG PLOTTED: 12/29/11.



DEPTH	PID	DRO
0.5'	48.5	–
2'	>350	**19,800**
4'	92.8	–
6'	10.9	–

DEPTH	PID	DRO
0.5'	0.3	ND
2'	0.7	–
4'	0.7	–
6'	1.0	–

DEPTH	PID	DRO
0.5'	0.7	156
2'	1.1	–
4'	1.1	–
5.5'	5.8	–
6.5'	1.6	–

DEPTH	PID	DRO
0.5'	1.9	40.9
2'	0.4	–
4'	0.8	–
6'	0.1	–

DEPTH	PID	DRO
0.5'	916	–
2'	377	–
4'	>1,000	–
6'	>280	110
7'	158	–

DEPTH	PID	DRO
0.5'	1.7	–
2'	4.8	–
4'	17.7	–
6'	185	ND
8'	4.8	–

EXPLANATION

◪ TEST PIT LOCATION
DEPTH FEET BELOW GROUND SURFACE
PID PHOTOIONIZATION (PID) DETECTOR READING (ppmv)
DRO DIESEL-RANGE ORGANICS (mg/kg)

NOTE:
BOLD/RED TEXT INDICATES AN EXCEEDANCE OF ADEC SOIL CLEANUP LEVELS.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

NORTH

0 10 20
APPROX. SCALE IN FEET

oasis ENVIRONMENTAL

DATE: DEC. 2011
CHKD: L.C.N.
DRAWN: C.E.H.
PROJ. No.: 14-207

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

AREA A SOIL RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE
4

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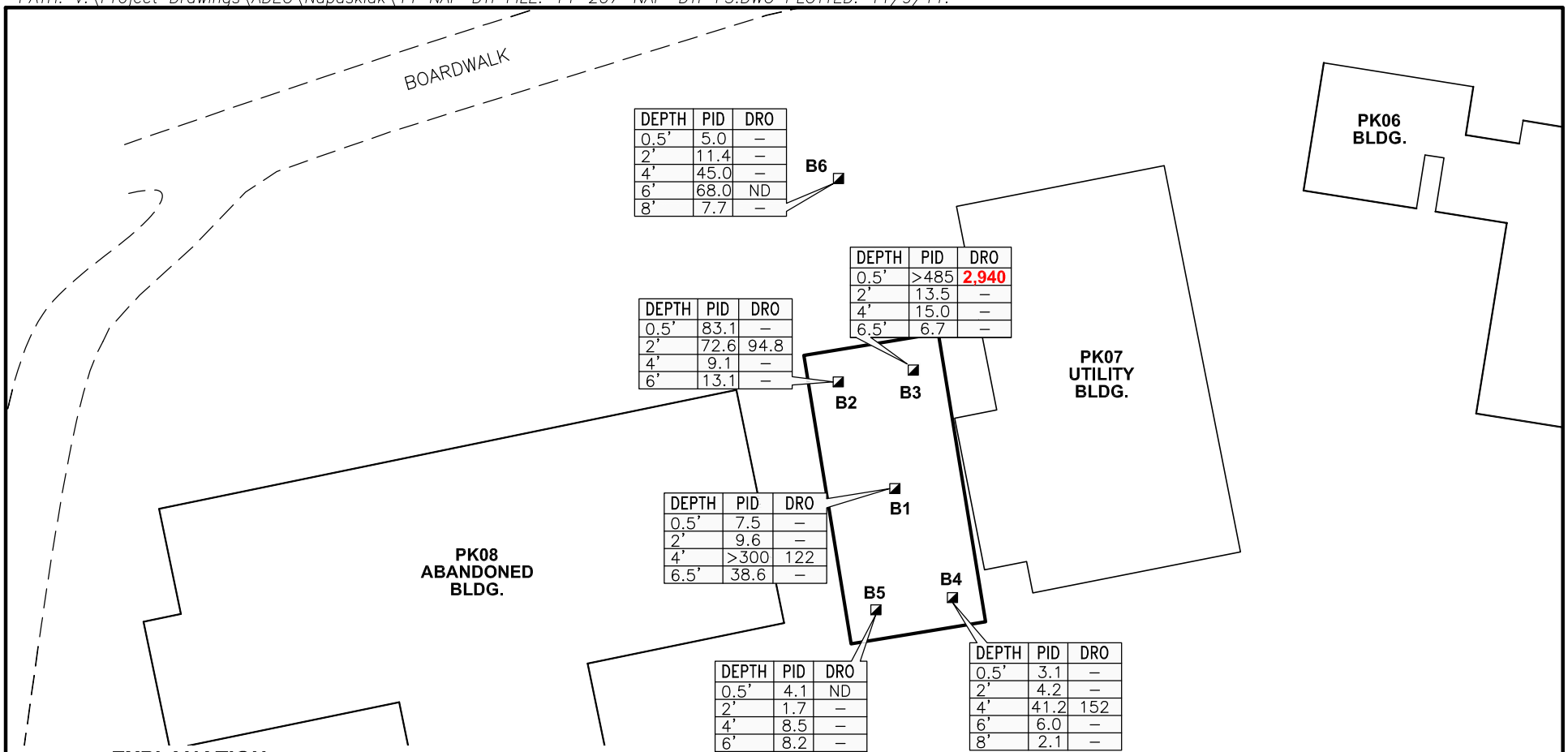
PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F3.DWG PLOTTED: 11/9/11.



DEPTH	PID	DRO
0.5'	5.0	–
2'	11.4	–
4'	45.0	–
6'	68.0	ND
8'	7.7	–

DEPTH	PID	DRO
0.5'	>485	**2,940**
2'	13.5	–
4'	15.0	–
6.5'	6.7	–

DEPTH	PID	DRO
0.5'	83.1	–
2'	72.6	94.8
4'	9.1	–
6'	13.1	–

DEPTH	PID	DRO
0.5'	7.5	–
2'	9.6	–
4'	>300	122
6.5'	38.6	–

DEPTH	PID	DRO
0.5'	4.1	ND
2'	1.7	–
4'	8.5	–
6'	8.2	–
7.5'	1.4	–

DEPTH	PID	DRO
0.5'	3.1	–
2'	4.2	–
4'	41.2	152
6'	6.0	–
8'	2.1	–

EXPLANATION

◪ TEST PIT LOCATION
DEPTH FEET BELOW GROUND SURFACE
PID PHOTOIONIZATION (PID) DETECTOR READING (ppmv)
DRO DIESEL-RANGE ORGANICS (mg/kg)

NOTE:
BOLD/RED TEXT INDICATES AN EXCEEDANCE OF ADEC SOIL CLEANUP LEVELS.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

NORTH

0 10 20
APPROX. SCALE IN FEET

oasis ENVIRONMENTAL

DATE: NOV. 2011
CHKD: L.C.N.
DRAWN: C.E.H.
PROJ. No.: 14-207

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

AREA B SOIL RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE
5

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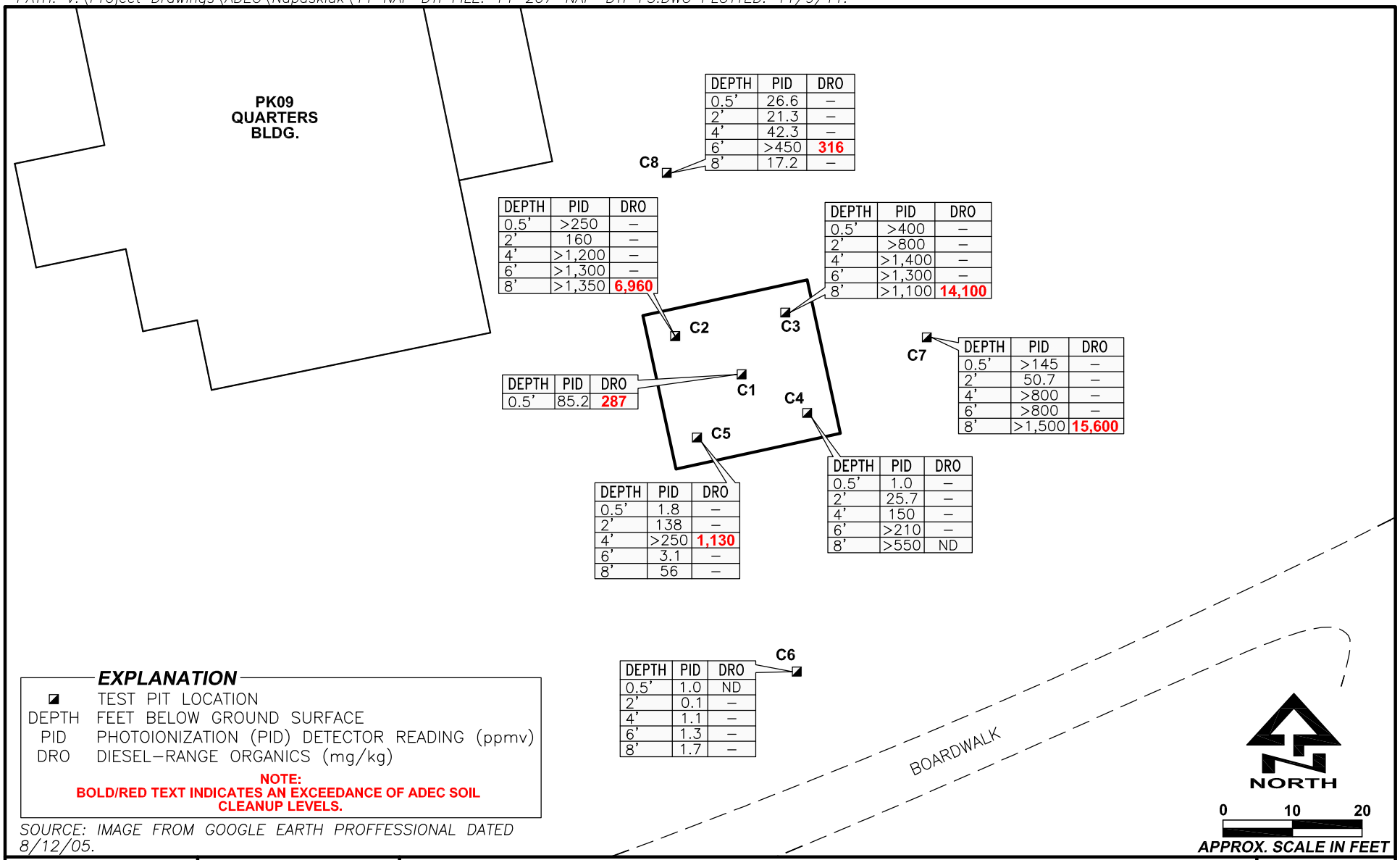
PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F3.DWG PLOTTED: 11/9/11.



DEPTH	PID	DRO
0.5'	26.6	–
2'	21.3	–
4'	42.3	–
6'	>450	**316**
8'	17.2	–

DEPTH	PID	DRO
0.5'	>250	–
2'	160	–
4'	>1,200	–
6'	>1,300	–
8'	>1,350	**6,960**

DEPTH	PID	DRO
0.5'	>400	–
2'	>800	–
4'	>1,400	–
6'	>1,300	–
8'	>1,100	**14,100**

DEPTH	PID	DRO
0.5'	85.2	**287**

DEPTH	PID	DRO
0.5'	>145	–
2'	50.7	–
4'	>800	–
6'	>800	–
8'	>1,500	**15,600**

DEPTH	PID	DRO
0.5'	1.8	–
2'	138	–
4'	>250	**1,130**
6'	3.1	–
8'	56	–

DEPTH	PID	DRO
0.5'	1.0	–
2'	25.7	–
4'	150	–
6'	>210	–
8'	>550	ND

DEPTH	PID	DRO
0.5'	1.0	ND
2'	0.1	–
4'	1.1	–
6'	1.3	–
8'	1.7	–

EXPLANATION

◪ TEST PIT LOCATION
DEPTH FEET BELOW GROUND SURFACE
PID PHOTOIONIZATION (PID) DETECTOR READING (ppmv)
DRO DIESEL-RANGE ORGANICS (mg/kg)

NOTE:
BOLD/RED TEXT INDICATES AN EXCEEDANCE OF ADEC SOIL CLEANUP LEVELS.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

oasis ENVIRONMENTAL

DATE: NOV. 2011
CHKD: L.C.N.
DRAWN: C.E.H.
PROJ. No.: 14-207

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

AREA C SOIL RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE
6

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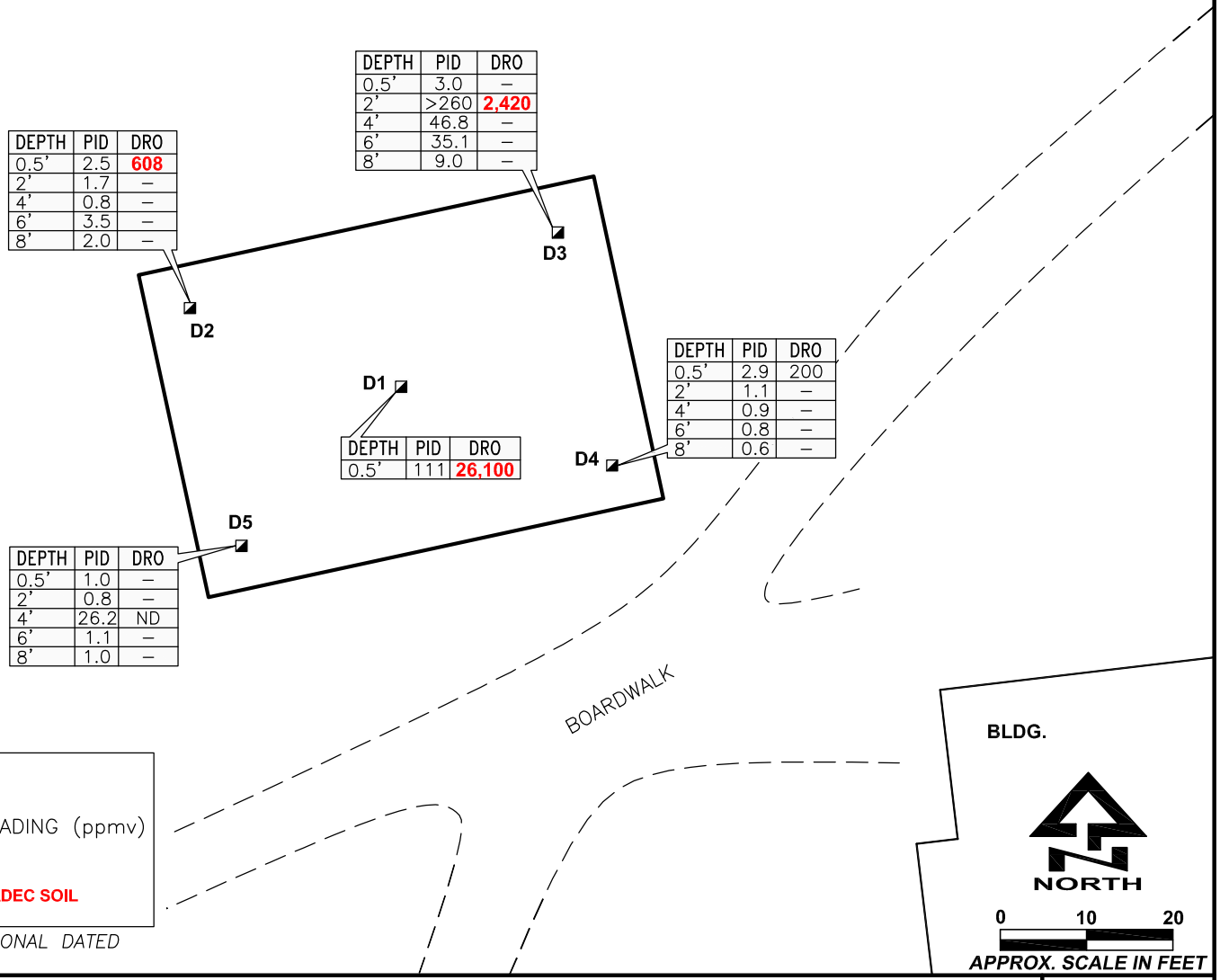
PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F7.DWG PLOTTED: 11/9/11.



DEPTH	PID	DRO
0.5'	3.0	–
2'	>260	**2,420**
4'	46.8	–
6'	35.1	–
8'	9.0	–

DEPTH	PID	DRO
0.5'	2.5	**608**
2'	1.7	–
4'	0.8	–
6'	3.5	–
8'	2.0	–

DEPTH	PID	DRO
0.5'	2.9	200
2'	1.1	–
4'	0.9	–
6'	0.8	–
8'	0.6	–

DEPTH	PID	DRO
0.5'	111	**26,100**

DEPTH	PID	DRO
0.5'	1.0	–
2'	0.8	–
4'	26.2	ND
6'	1.1	–
8'	1.0	–

EXPLANATION

◪ TEST PIT LOCATION
DEPTH FEET BELOW GROUND SURFACE
PID PHOTOIONIZATION (PID) DETECTOR READING (ppmv)
DRO DIESEL-RANGE ORGANICS (mg/kg)

NOTE:
BOLD/RED TEXT INDICATES AN EXCEEDANCE OF ADEC SOIL CLEANUP LEVELS.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

oasis ENVIRONMENTAL

DATE: NOV. 2011
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DRAWN: C.E.H.
PROJ. No.: 14-207

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AREA D SOIL RESULTS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE

7

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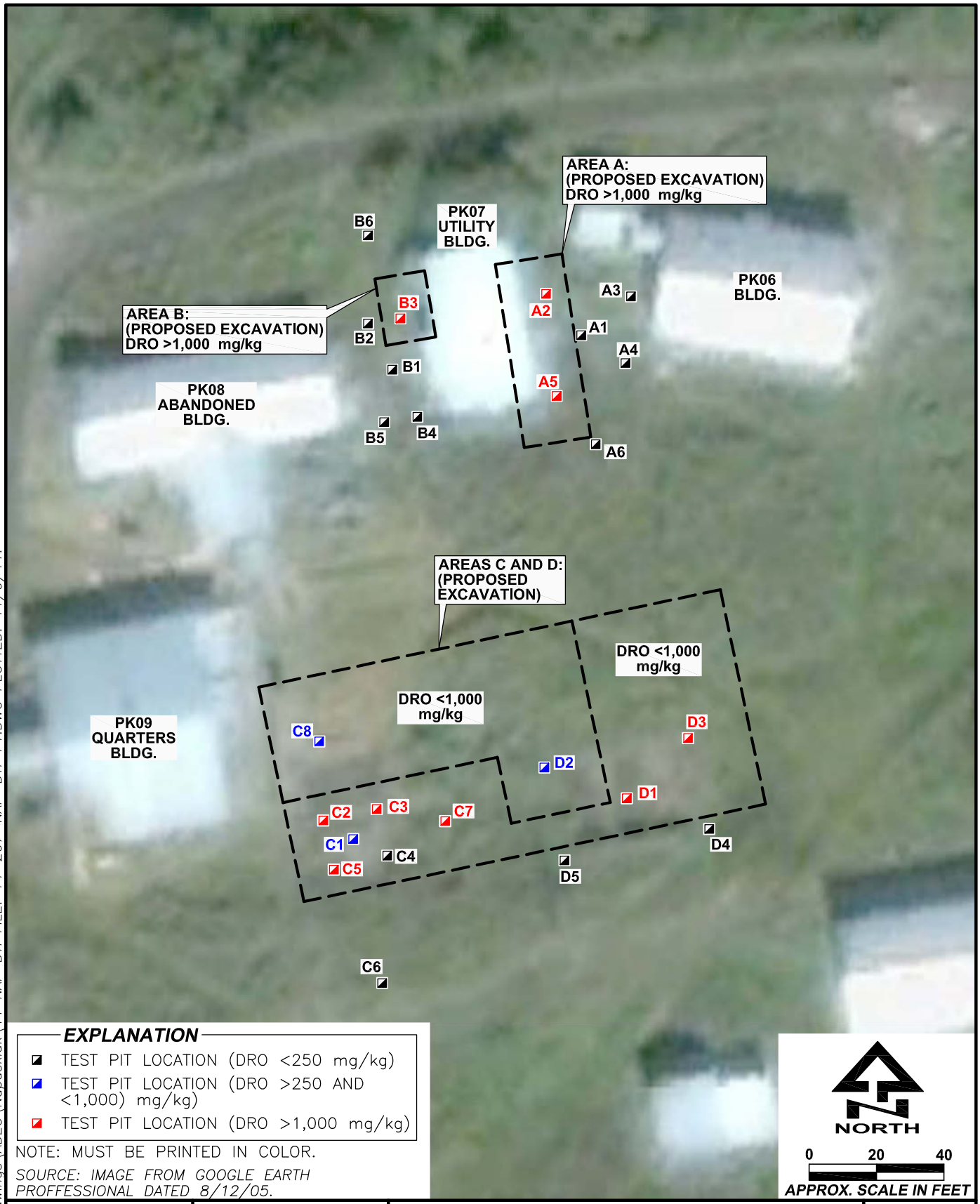

EXPLANATION

- TEST PIT LOCATION (DRO <250 mg/kg)
- TEST PIT LOCATION (DRO >250 AND <1,000) mg/kg)
- TEST PIT LOCATION (DRO >1,000 mg/kg)

NOTE: MUST BE PRINTED IN COLOR.

SOURCE: IMAGE FROM GOOGLE EARTH PROFFESSIONAL DATED 8/12/05.

oasis ENVIRONMENTAL

DATE: NOV. 2011
CHKD: L.C.N.
DRAWN: C.E.H
PROJ. No.: 14-207

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PROPOSED EXCAVATION LOCATIONS

FORMER BIA SCHOOL DAY TANKS
SITE CHARACTERIZATION
Napaskiak, Alaska

FIGURE

8

PATH: V:\Project Drawings\ADEC\Napaskiak\11 NAP DTI FILE: 14-207-NAP-DTI-F1.DWG PLOTTED: 11/9/11.

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APPENDIX A

Field Notes

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Napaskiak
Former BIA School Day Tanks
Site Characterization

"Rite in the Rain"®
ALL-WEATHER
METRIC FIELD
No. 363

Project 14-207
Phase 02

CONTENTS

PAGE	REFERENCE	DATE

E. Boyette
S. Christiansen

ADEC - NAPASKIAK
14-207
9/12/11

50°F, overcast, light winds

(1)

06:00 EB and SC met at Ted Stevens Int. Airport to fly to Napaskiak via Bethel.

08:50 Arrived in Bethel. Collected checked bags and shuttled from AK Air to Grant Air

09:00 Checked in for 11:30 flight to Napaskiak

11:45 Arrived in Napaskiak. Checked into lodging and sorted personal gear.

12:30 EB and SC met with Talbert Bently at the school. Received key to teacher's apartment and a site orientation. Talbert (TJ) unlocked the storage Room where OASIS field gear is stored. There are 2 wells in town that locals use to draw water from - an east well and a west well.

14:00 EB & SC performed a site walk-through to identify all of the significant areas involved in project.

Areas A, B, C and D were readily identifiable. Head leak area not easily identified. Former Bift sewage lagoon located - Note: fence surrounding lagoon has partially fallen over. Visited the dump - immediately adjacent to a lagoon.

18:00 EB performed a trial run with lime and tap water. Tap pH went from ~5.5 to 8 with 2 teaspoons of lime but was unable to bring the pH any higher. Acid with a pH <2 was also brought to pH 8 with 2 teaspoons of

Eric Boyette
Rite in the Rain 1/2
9/12/11

E. Bayette ADEC-Napaskiak/LKSD 9/12/11
S. Christiansen 14-207

(2) cont'd → lime but was unable to bring the pH any higher. Suspect a buffer is present in lime or lime may be calcium carbonate.

Note: A call was placed to United and the Alaska Dig Line concerning the utility locate required prior to excavating. The call was note returned. Will call Digline again first thing tomorrow morning.

E. Bayette
9/12/11

E. Bayette ADEC-Napaskiak/LKSD 50°; partly sunny
S. Christiansen 14-207 9/13/11 light winds (3)

07:00 EB called the AK Digline to follow up on scheduling the utility locates.

08:00 EB & SC moved equipment from storage building into apartment for better access/security.

09:00 Spoke to Max Schwenne. Discussed not being able to raise pH to 12.5 with lime. After discussion and Research, Max believes the "sweet lime" is calcium carbonate rather than calcium oxide. Sludge samples will be collected and transported to Anchorage to perform the alkali requirement bench test.

Discussed the visit to the landfill. Max would like use to verify that the landfill south of the school verses the landfill east of town (noted on Fig 2) is where contaminated soils will be disposed.

09:30 EB and SC walked to eastern sewage lagoon and landfill. There does NOT appear to be a landfill at this location. The area marked LANDFILL on Fig 2 is a fenced sewage lagoon used by the waste water treatment plant. The neighboring body of water is not fenced and does not appear to currently be used as a sewage lagoon.

10:00 Called Ryan Butte to confirm meeting today. He plans to be in Napaskiak and meet around lunch.

10:30 Contacted Joe Dale. His excavator is broken

E. Bayette
9/13/11

cont'd → and will not be available tomorrow. He will check the availability of another excavator and follow up.

11:30 Joe Dale called back. The second large excavator will not be available until Saturday or Sunday. A mini-excavator may be available sooner but it is not able to dig to 10' if necessary.

12:00 Ryan Butte stopped by to discuss the project. He will follow up to try to ensure the utility locate does not prevent the project from moving forward.

12:20 Contacted Max Schwenne. He believes the mini-excavator should be adequate. Instructs us to move forward - any holes that need to be deeper than the mini is able to achieve will be completed once the larger excavator becomes available.

12:30 Ryan Butte and Joe Amik stopped by. Joe is the United representative in Napaskiak. The only underground utility in Napaskiak is the communications line, several miles from the site. All other utilities are overhead except the fuel line, which runs on top of the ground. OK to proceed.

Eric Boyette
9/13/11

13:00 Installed WP-1 just northwest of the school. Met refusal around 4'. No water was present. Pulled the WP. The WP was covered in saturated silt for the bottom ~1.5' so the well was re-installed. Refusal was still ~4' bgs.

14:00 Installed WP-2 just SW of PRO9 Quarters building. A second riser was coupled onto the first and WP-2 was driven ~9' deep. No water was recorded at the bottom of the well.

15:00 WP-3 was installed just south of the slough. Ground is saturated to the surface. Met refusal ~3' bgs. No water was recorded at the bottom of the well.

16:50 Collected NK-11-DW-01 - a pre-treated sample from the school's wellhouse.

17:00 Collected NK-11-DW-02 - a treated sample from the school's wellhouse.

17:30 Went to the nearest water collection point at the water treatment plant. The operator is gone for the day.

18:30 Met the water treatment plant operator. He will be at the plant from 9am-12pm tomorrow.

Eric Boyette
9/13/11

S. Christiansen ADEC-Napaskiak/LKSD
E. Boyette 14-207
9/14/11

0900 Went to ~~Waste~~ SC water treatment facility to meet Joe. Wasn't there.

0930 Joe arrived. Allowed us to take raw sample of water
Sample time: 955
Sample ID NK-11-DW-03

1015 Started mobing for abandoned former BIA sewage lagoon

1115 Arrived to lagoon. Took measurements: 25' x 34'

1145 Took sample 1 3 inches of sludge 1.9 feet of water

1215 Sample 2. 1 ft of water & 4 inches of sludge

1245 Sample 3 1.25' of water & 5" of sludge

SB notes: Collected samples for lime bench test and COD. BOD will be collected later due to 48 hour hold time.

14:50 Collected NK-11-WP-1
- Note - DTW = 5.35' stickup 2.06' GW = 3.29' bgs Well ran dry after ~50 mL H_2O. Waited 15 min. but did not recharge. Will return tomorrow.

Eric Boyette 9/14/11

E. Boyette ADEC-Napaskiak-LKSD
S. Christiansen 14-207 9/14/11

15:20 Set up to collect NK-11-WP-3
DTW - 4.40 Stickup - 2.5 GW = 1.9' bgs collected VOCs and began collecting DRO when well ran dry. Waited 15 min, did not Recharge. Will Return tomorrow.

17:00 Set up to collect NK-11-WP-2
DTW - 7.35 Stickup - 1.3 GW = 6.05' bgs collected VOCs and 1/2 DRO bottles when well ran dry. Waited 15 minutes, well did not Recharge. Will Return tomorrow.

17:45 Spoke to Joe Dale. Operator will not be available until tomorrow from 6pm-9pm.

Eric Boyette 9/14/11

(8) E. Boyette
S. Christiansen
9/15/11

ADEC- Napaskiak/LKSD
14-207

10:00 Met with Grant Lindren (ADEC) walked site. Discussed problems with Recovery at well points. Per conversation with Grant: no sample will be collected at WP-1.
No duplicate will be collected from any WP.
*Showed Grant the broken drum located on the new boardwalk - suggest immediate clean up or berm/sorbent boom around the spill. Currently there are sorbent pads on the ground around the broken drum.

12:45 EB, SC, and Grant Lindren met with the Ecology class to discuss soil and water quality in areas with hydrocarbon contamination. Demonstrated the PID, interface probe and temporary well points.

14:00 Returned to WP-2 with Grant to collect additional water volume.

14:20 Returned to WP-3 with Grant to collect additional water volume.

16:00 Contacted Joe Dale to confirm arrival time of operator and excavator. Joe Dale was not able to secure an excavator.
Grant Lindren departed Napaskiak.

16:30 Made a few phone calls. Put Joe Dale in contact with Jeff Beatty (VSW) - a Bobcat mini excavator will be available tomorrow.

1/1

Eric Boyette
9/15/11

E. Boyette
S. Christiansen
9/16/11

ADEC-Napaskiak/LKSD
14-207

60°, sunny

(9)

16:55 Robbie Bi Lindsy arrived

17:00 Picked up backhoe from VSW

17:10 Robbie signed HSE planned, discussed tasks, site overview

17:30 began digging at A-1 (center point)

PIDs: A1 @ 0' = 0.7 No HC
A1 @ 2' = 1.1 No HC
A1 @ 4' = 1.1 ND
A1 @ 5.5' = 5.8 ND
A1 @ 6.5' = 1.6 ND

soil is moist, No HC odor or visible staining
Brown with mixed grey silts 0-2' then grey silt to bottom

18:00 Collected NK-11-SS-01 from A-1 @ 6" bgs

18:10 Began digging A-2 (NW corner)

PIDs: A2 @ 0' = 48.5 slight HC
A2 @ 2' = >350 strong
A2 @ 4' = 92.8 Mod-strong HC
A2 @ 6' = 10.9 ND

18:40 Collected NK-11-SS-02 from A-2 @ 3.0' bgs

19:00 Began digging A-3 (NE corner)
- An electrical line (abandoned) was severed ~2.0' bgs
Stopped work. Called Max Schwenne and Lisa Nicholson - left messages. Called Ryan Butte. He does not believe the line is active - should not be a problem. He will verify.
Called Philip Nikolai (Native Corp) - no live underground utilities in Napaskiak. - ok to proceed. Called Joe Bavalee (mayor) - no live underground utilities - ok to proceed.
Called Ryan Butte. He also verified no live utilities. - Abandoned cable from former BIA generator building. OK to proceed.

PIDs: A3 @ 0' = 0.3 ND
A3 @ 2' = 0.7 ND
A3 @ 4' = 0.7 ND
A3 @ 6' = 1.0 ND

Eric Boyette
9/16/11

1/2

(10) E. Boyette ADEC-Napaskiak/LKSD
S. Christiansen 14-207 9/16/11

19:50 Collected NK-11-SS-03 from A3 @ 6" bgs
20:00 Began digging A4 (SE corner)
PIDs: A4@0' = 1.9 ND A4@4' = 0.8 ND
A4@2' = 0.4 ND A4@6' = 0.1 ND
20:15 Collected NK-11-SS-04 from A4 @ 6" bgs
20:40 Moved excavator back to VSW yard and Robbie headed to the airport to fly back to Bethel. Will return on 9 am flight.

Eric Boyette
9/16/11

2/2

E. Boyette ADEC-Napaskiak/LKSD 58°F, foggy (11)
S. Christiansen 14-207
9/17/11

9:00 Spoke to Robbie - weather delay - cannot fly dere to fog
13:50 Weather finally cleared. Robbie arrived. Went to VSW yard to speak to Jeff Beatty - misunderstanding about excavator use / logistics. Called Joe Dale. There will be an additional mob./demob. fee for the excavator today.
14:15 Arrived on-site. Began digging A5 (SW corner)
PIDs: A5@0' = >916 strong HC A5@6' = >280 strong HC
A5@2' = 377 strong HC A5@7' = 158 strong HC
A5@4' = >1000 strong HC *water seeping in @ 7'
15:15 Collected NK-11-SS-05 from A5 @ 5' bgs
15:30 Began digging B1 (center)
PIDs: B1@0' = 7.5 ND B1@4' = >300 strong HC
B1@2' = 9.6 ND B1@6.5' = 38.6 slight
16:00 Collected NK-11-SS-06 from B1 @ 4' bgs
-water seeping in at bottom of hole
16:15 Began digging at B2 (NW corner)
PIDs: B2@0' = 83.1 Mod HC B2@4' = 9.1 slight HC
B2@2' = 72.6 Mod HC B2@6' = 13.1 slight HC
16:50 Collected NK-11-SS-07 from B2 @ 2' bgs
16:55 Began digging B3 (NE corner)
PIDs: B3@0' = >485 strong B3@4' = 15 ND
B3@2' = 13.5 ND B3@6.5' = 6.7 ND
water seeping into bottom of excavation
17:20 Collected NK-11-SS-08 from B3 @ 1' bgs
17:25 Began digging B4 (SE corner)
PIDs: B4@0' = 3.1 ND B4@6' = 6.0 ND
B4@2' = 4.2 ND B4@8' = 2.1 ND
B4@4' = 41.2 ND *water seeping in ~7.5'
17:50 Collected NK-11-SS-09 from B4 @ 4' bgs

Eric Boyette
9/17/11

1/2

(12) E. Boyette
S. Christiansen
9/17/11

ADEC-Napaskiak/LKSD
14-207

18:00 Began digging B5 (SW Corner)
PIDs B5@0' = 4.1 ND B5@6' = 8.2 ND
B5@2' = 1.7. ND B5@7.5' = 1.4 ND
B5@4' = 8.5 ND *water seeping at ~ 7.0'
18:30 Collected NK-11-SS-10 from B5 @ 0.5' bgs
19:10 Began digging C2 (NW Corner)
PIDs: C2@0' = >250 strong HC C2@6' = >1300 strong HC
C2@2' = 160 strong HC C2@8' = >1350 strong HC
C2@4' = >1200 strong HC *water seeping ~7.0'
19:45 Collected ~~NK-SS~~ EB 9/17/11 NK-11-SS-11 from C2@8' bgs
20:00 Collected NK-11-SS-12 (duplicate of C2)
20:10 Began digging C3 (NE corner)
PIDs: C3@0' = >400 strong HC C3@6' = >1300 strong HC
C3@2' = >800 strong HC C3@8' = >1100 strong HC
C3@4' = >1400 strong HC *water seeping in ~ 7.0'
20:45 Collected NK-11-SS-13 from C3 @ 8' bgs
21:00 Shut down excavator and cleaned up job site.
Left Bobcat parked on-site, overnight
Robbie departed for airport to return to Bethel.

Eric Boyette
9/17/11

2/2

E. Boyette
S. Christiansen
9/18/11

ADEC-Napaskiak/LKSD
14-207, 658-002

45°F, sunny

(13)

9:00 EB called Robbie. Fogged in in Bethel.
9:45 Still fogged in in Bethel. Arranged boat transport for Robbie from Bethel to Napaskiak.
11:00 Met Robbie on-site and began warming equipment.
11:30 Began digging D2 (NW Corner)
PIDS: D2@0' = 2.5 ND D2@6' = 3.5 ND
D2@2' = 1.7 ND D2@8' = 2.0 ND
D2@4' = 0.8 ND *water seeping in @ ~7.5'
12:00 Collected NK-11-SS-14 from D2 @ 0.5' bgs
12:05 Collected NK-11-SS-15 from D1 @ 0.5' bgs using hand shovel (center of containment not accessible to excavator) PID = 111 strong HC
12:10 Began digging D3 (NE corner)
PIDS: D3@0' = 3.0 ND D3@6' = 35.1 slight HC
D3@2' = >260 strong HC D3@8' = 9.0 ND
D3@4' = 46.8 slight HC *water seeping in @ ~7.5'
12:30 Collected D3 @ 2.0' bgs NK-11-SS-16
12:45 Collected NK-11-SS-17 from C1 @ 0.5' bgs using small hand shovel (exc. cannot enter containment) PID = 85.2 moderate HC
13:00 Began digging D4 (SE Corner)
PIDS: D4@0' = 2.9 ND D4@6' = 0.8 ND
D4@2' = 1.1 ND D4@8' = 0.6 ND
D4@4' = 0.9 ND *water seeping in @ ~7.5'
13:35 Collected NK-11-SS-18 from D4 @ 0.5' bgs
13:55 Began digging D5 (SW corner)
PIDS: D5@0' = 1.1 ND D5@6' = 1.1 ND
D5@2' = 0.8 ND D5@8' = 1.0 ND
D5@4' = 26.2 slight HC *water seeping in @ ~7.0'
14:30 Collected NK-11-SS-19 from D5 @ 4.0' bgs
14:45 Began digging C4 (SE corner)
PIDS: C4@0' = 1.0 ND C4@6' = >210 strong HC
C4@2' = 25.7 slight HC C4@8' = >550 strong HC
C4@4' = 150 strong HC *water seeping in @ ~7.0'
15:20 Collected NK-11-SS-20 from C4 @ 8.0' bgs
15:30 Began digging C5 (SW corner)
PIDS: C5@0' = 1.8 ND C5@6' = 3.1 ND
C5@2' = 138 strong HC C5@8' = 56 moderate HC
C5@4' = >250 strong HC *water seeping @ 7.5'

Eric Boyette
9/18/11

16:00 Collected NK-11-SS-21 from C5 @ 4.0' bgs

16:15 Went in to review data. Due to limited time with the excavator, only a few more test pits will be dug in order to maximize information for the entire site.

17:20 Began digging C6 (south of Area C)

PIDs: C6@0' = 1.0 ND C6@6' = 1.3 ND
C6@2' = 0.1 ND C6@8' = 1.7 ND
C6@4' = 1.1 ND *water seeping in @ 7.0' bgs

17:45 Collected NK-11-SS-22 from C6 @ 1.0' bgs

17:55 Began digging C7 (East of area C, west of D)

PIDs: C7@0' = >145 strong HC C7@6' = >800 strong HC
C7@2' = 50.7 Mod. HC C7@8' = >1500 strong HC
C7@4' = >800 strong HC *water seeping in @ ~7' bgs

18:15 Collected NK-11-SS-23 from C7 @ 8.0' bgs (+ SPLP)

18:30 Collected NK-11-SS-24 (dup. of C7)

18:35 Began digging C8 (North of area C)

PIDs: C8@0' = 26.6 slight HC C8@6' = >450 Strong HC
C8@2' = 21.3 slight HC C8@8' = 17.2 ND
C8@4' = 42.3 slight HC *water seeping in ~ 7.0'

18:45 Collected NK-11-SS-25 from C8 @ 6.0' bgs (+SPLP)

19:00 Began digging A6 Note: Pipeline, broken powerline pole and power lines prevent digging directly south of A5. Point adjusted SW (~5' south and 15' west)

PIDs: A6@0' = 1.7 ND A6@6' = 185 Strong HC
A6@2' = 4.8 ND A6@8' = 4.8 ND
A6@4' = 17.7 ND *water seeping in @ ~7' bgs

Eric Boyette 9/18/11

19:20 Collected NK-11-SS-26 from A6 @ 6.0' bgs

19:50 Began digging B6 (North of area B)

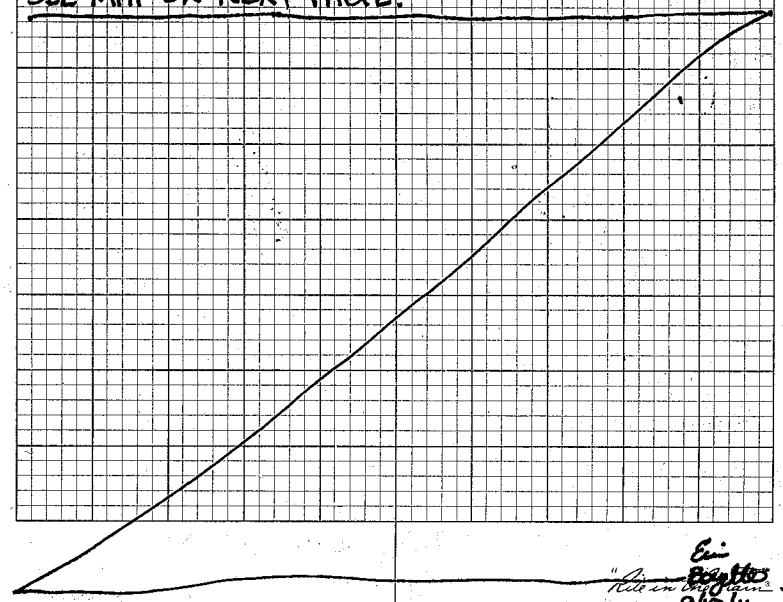
PIDs: B6@0' = 5.0 ND B6@6' = 68 slight HC
B6@2' = 11.4 ND B6@8' = 7.7 ND
B6@4' = 45 slight HC *water seeping in @ ~ 7.0'

20:30 Collected NK-11-SS-27 from B6 @ 6' bgs

20:50 Returned Bobcat excavator and rig mats to VSW yard. Robbie went to airport to return to Bethel. He is unable to return tomorrow so no additional excavation will occur. EB 9/18

Due to time constraints with the excavator/operator we were unable to fully delineate the site and unable to dig the test pits at the landfill.

SEE MAP ON NEXT PAGE.

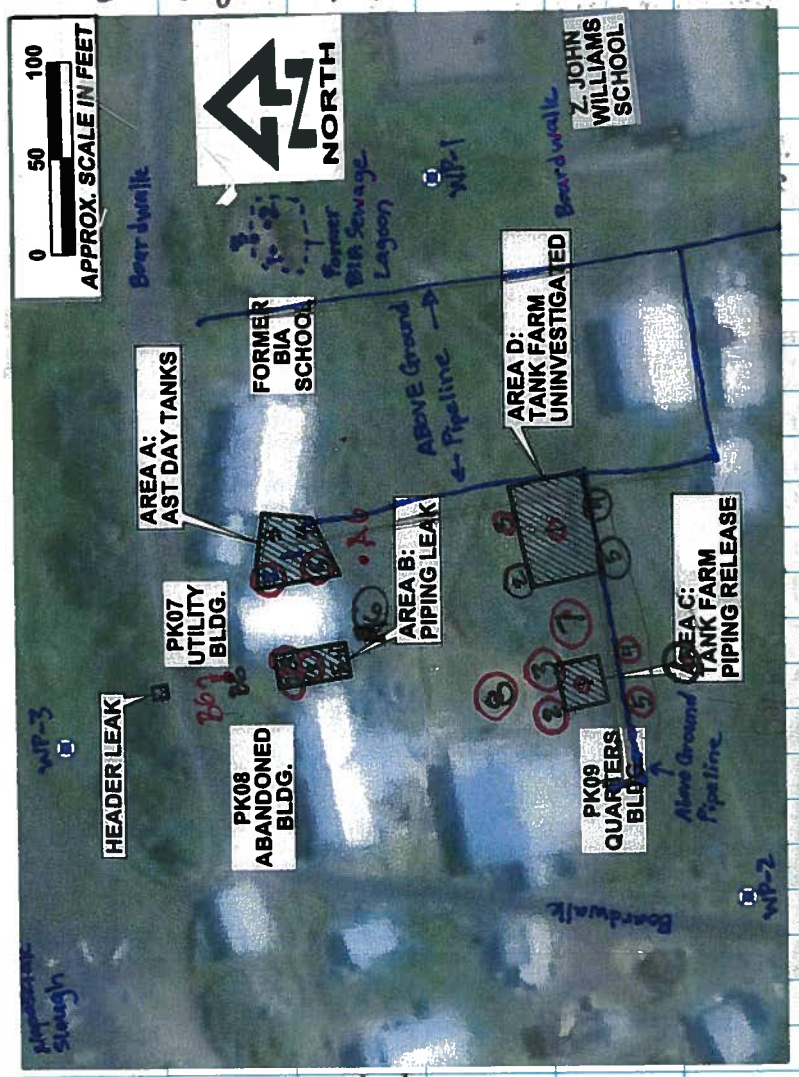


Eric Boyette 9/18/11

(16) E. Boyette
S. Christiansen
9/18/11

ADEC-Napaskiak/LKSD
14-207 / 658-002

Eric Boyette 9/19/11



Eric Boyette 9/19/11

Eric Boyette
9/19/11

4/4

E. Boyette
S. Christiansen
9/19/11

ADEC-Napaskiak/LKSD
14-207 / 658-002

35°F, partly cloudy
light winds

(17)

07:00 Began packing coolers and gear to demob. from Napaskiak and Return to ANCHORAGE.

11:00 Collected Sample 1 BOD from sewage lagoon

11:05 Collected Sample 2 BOD from sewage lagoon

11:10 Collected Sample 3 BOD from sewage lagoon

– Samples will be called 11-LKSD-WW-01, 02 & 03 (WW = waste water) Because COD was collected on a different date and time, an A will be used for earlier samples and B for later samples.

11:30 Loaded gear on four wheelers and transported to Napaskiak Airstrip to flyout on Grant Aviation to Bethel.

12:30 Checked in at AK Air Flt 44 to Anchorage at 14:35.

13:00 EB was not allowed to Goldstreak samples to ANC. Bethel terminal will not accept any dangerous good in Excepted Quantities. EB changed to Flt 46 to ANC at 20:30. Samples must be shipped via NAC.

17:00 EB shipped samples to ANC via NAC AWB# 345 2076 8742

19:30 EB checked into Flt 46 to ANC

Eric Boyette 9/19/11

1/1

Napaskiak Photo Log:

11-NK(1) - WP3 looking east

11-NK(2) - WP3 looking west

11-NK(3) - Community landfill, note water body directly north of landfill

11-NK(4) - Backhoe excavates A1

11-NK(5) - looking down into A1 (no staining, brown soil over gray silt)

11-NK(6) - " "

11-NK(7) - looking down into A3 - no abandoned electrical cables

11-NK(8) - looking down into D5, note water at bottom of excavation

11-NK(9) - looking down into C4

11-NK(10) - broken boardwalk, north of area B

11-NK(11) - looking north at Area C - lath marks C6, C5, C4, and C1 are visible. Crossed lath denotes above ground pipeline.

11-NK(12) - looking NW to show C7 (just left of telephone pole near shrubs)

11-NK(13) - looking north at area D - lath marks D5, D4 and D1 (D1 barely visible in center)

11-NK(14) - looking south at area D - lath marks D3 and D2; crossed lath denotes above ground pipeline

11-NK(15) - looking west, lath marks D2 and C7 crossed lath denotes unknown pipe on ground

Eric Boyette 9/21/11

11-NK(16) - looking south at area C. Lath marks C8, C2, C3, and C1. Crossed lath denotes above ground pipeline.

11-NK(17) - looking NE at A6

11-NK(18) - Looking North at area B. Lath marks B5, B4, B1, B2, B3 and B6.

11-NK(19) - looking NE at area B. Lath marks B5, B4, B1, B3 and B6.

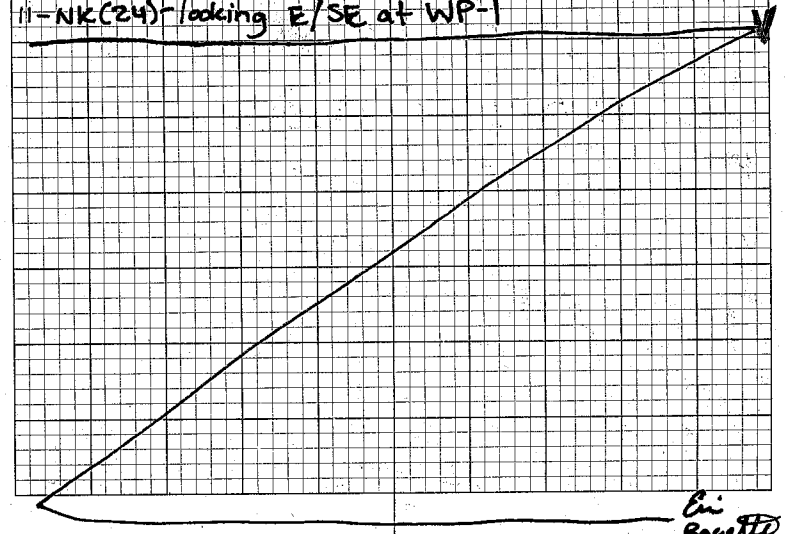
11-NK(20) - looking NE at area B. Lath marks all 6 locations.

11-NK(21) - looking North at area A. Lath marks A5, A1, A2, and A3

11-NK(22) looking north at area A. Lath marks A4, A1, A2 and A3

11-NK(23) - looking south at Area A. Lath marks A1, A4 and A5.

11-NK(24) - looking E/SE at WP-1



Eric Boyette 9/21/11

(20) S. Christiansen ADEC-Napaskiak

9/26/11

		2a	3a	
Sample	1a	~~1b~~ sc	~~1c~~ sc	
date	9/26/11	9/26/11	9/26/11	
time	11:10			
dose	1 tea	1 tea	1 tea	— These are estimated volumes
pH initial	6	5	5	
pH time	12	12	12	(SW)
pH 2 hr	12.5	12.5	12.5	11/4/11
pH 24 hr	12.5	12.5	13	
				sc
Sample	1b	2b	3b	
date	9/26			
time	1130			
dose	1/2 tea	1/2 tea (1)	1/2 tea (1)	These are estimated volumes
pH initial	6	6	6	
pH time	12.5	12	12	(SW) 11/4/11
pH 2 hr	12	12	12	
pH 24	12.5	12	12	
Sample	1c	2c	3c	
date	9/26/11	9/26	9/26	
time	1345	1345	1345	
dose	1/4 tea	1/2 tea	3/4	
pH initial	6	6	6	
pH time	10.5	11	12	
pH 2 hr	10.5	11.5	12	
pH 24 hr	10.5	12	12	

APPENDIX B

Photographs

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PHOTOGRAPH 1: WELL POINT WP-1 BETWEEN THE SITE AND THE SCHOOL, LOOKING EAST.

PHOTOGRAPH 2: WELL POINT WP-2 LOCATED BETWEEN THE SITE AND NAPASKIAK SLOUGH, LOOKING WEST.

PHOTOGRAPH 3: BACKHOE EXCAVATES TEST PIT A1, LOOKING NORTH.

PHOTOGRAPH 4: TEST PIT A1 SHOWING BROWN SOIL OVER GRAY SILT.

PHOTOGRAPH 5: AREA A – LATH MARK TEST PIT LOCATIONS (LEFT TO RIGHT A5, A4, A1 AND A2), LOOKING NORTH.

PHOTOGRAPH 6: AREA B – LATH MARK TEST PIT LOCATIONS (FROM LEFT TO RIGHT B2, B6, B1, B3, B5 AND B4), LOOKING NORTHEAST.

PHOTOGRAPH 7: AREA C- LATH MARK TEST PIT LOCATIONS (LEFT TO RIGHT C5, C6, C1 AND C4), LOOKING NORTH

PHOTOGRAPH 8: AREA D – LATH MARK TEST PIT LOCATIONS (D5 ON LEFT, D4 ON RIGHT, D1 BARELY VISIBLE IN CENTER), LOOKING NORTH.

APPENDIX C

Laboratory Reports

DEC Laboratory Review Checklist

Quality Assurance Review

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Anchorage
2000 West International Airport Road Suite A10
Anchorage, AK 99502-1119
Tel: (907) 563-9200

TestAmerica Job ID: AUI0080
Client Project/Site: 14-207
Client Project Description: ADEC - Napaskiak

For:
Oasis Environmental, Inc.
825 W 8th Ave, ste 200
Anchorage, AK/USA 99501-4427

Attn: Lisa Nicholson

Johanna Dreher

Authorized for release by:
10/05/2011 06:05:56 PM

Johanna L Dreher
Client Services Manager
johanna.dreher@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.

Table of Contents

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
H1	Sample analysis performed past the method-specified holding time per client's approval.
I01	Internal Standard recovery was below method limits. Matrix interference was confirmed by reanalysis. A high bias to the analyte result is indicated.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.

Fuels

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
R2	The RPD exceeded the acceptance limit.
RL1	Reporting limit raised due to sample matrix effects.
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
Q4	The hydrocarbons present are a complex mixture of diesel range and heavy oil range organics.
Q11	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.
Q2	Typical pattern for diesel
RL7	Sample required dilution due to high concentrations of target analyte.

GC Volatiles

Qualifier	Qualifier Description
C4	Calibration Verification recovery was below the method control limit for this analyte.
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
R2	The RPD exceeded the acceptance limit.
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
R1	The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000B, the higher value was reported.
RL1	Reporting limit raised due to sample matrix effects.
BQC1	Reported for batch QC purposes only. See original analysis for final result.
RL7	Sample required dilution due to high concentrations of target analyte.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
Z6	Surrogate recovery was below acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Job ID: AUI0080

Laboratory: TestAmerica Anchorage

Narrative

Receipt
All samples were received in good condition.
Cooler temperatures wereas follows: 5.9 degrees Celcuis, 6.5 degrees Celcuis, and 5.8 degrees Celcuis.
Limited volume was submitted for water PAH analysis. Samples affected are AUI0080-04 and AUI0080-05.

Subcontracted
8260 VOCs and 8270 PAH SIM samples were subcontracted to TestAmerica Spokane from TestAmerica Anchorage.

AK 101 (GRO/BTEX)
The LCS associated with samples AUI0080-20 through AUI0080-27 recovered below acceptance limits for benzene, toluene, ethylbenze, and total xylenes. Affected analytes may be biased low. All samples were flagged L2.

Calibration verification recovery was below the method control limits for ethylbenzene and total xylenes. Affected analytes may be biased low. Samples AUI0080-19 through AUI0080-27 were flagged C4.

Detection Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-DW-01 — Lab Sample ID: AUI0080-01

No Detections

Client Sample ID: NK-11-DW-02 — Lab Sample ID: AUI0080-02

No Detections

Client Sample ID: NK-11-DW-03 — Lab Sample ID: AUI0080-03

No Detections

Client Sample ID: NK-11-WP-02 — Lab Sample ID: AUI0080-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.60		2.00		ug/l	10.0		EPA 8260B	Total
Ethylbenzene	10.8		10.0		ug/l	10.0		EPA 8260B	Total
o-Xylene	25.9		10.0		ug/l	10.0		EPA 8260B	Total
1,3,5-Trimethylbenzene	11.1		10.0		ug/l	10.0		EPA 8260B	Total
1,2,4-Trimethylbenzene	24.7		10.0		ug/l	10.0		EPA 8260B	Total
Xylenes (total)	34.4		30.0		ug/l	10.0		EPA 8260B	Total
Naphthalene	3.67	H1 I01	0.193		ug/l	1.00		EPA 8270 mod.	Total
2-Methylnaphthalene	6.27	H1 I01	0.193		ug/l	1.00		EPA 8270 mod.	Total
1-Methylnapthalene	4.50	H1 I01	0.193		ug/l	1.00		EPA 8270 mod.	Total
Diesel Range Organics	2.42	Q4	0.403		mg/l	1.00		AK102/103	Total
Residual Range Organics	0.655	Q4	0.403		mg/l	1.00		AK102/103	Total
Gasoline Range Organics	179		50.0		ug/l	1.00		AK101/EPA 8021B	Total
Benzene	5.99		0.500		ug/l	1.00		AK101/EPA 8021B	Total
Toluene	8.41		0.500		ug/l	1.00		AK101/EPA 8021B	Total
Ethylbenzene	14.7		0.500		ug/l	1.00		AK101/EPA 8021B	Total
Xylenes (total)	48.1		1.50		ug/l	1.00		AK101/EPA 8021B	Total

Client Sample ID: NK-11-WP-03 — Lab Sample ID: AUI0080-05

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	1.68	Q11	0.427		mg/l	1.00		AK102/103	Total

Client Sample ID: NK-11-TB-01 — Lab Sample ID: AUI0080-06

No Detections

Client Sample ID: NK-11-SS-01 — Lab Sample ID: AUI0080-07

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	156	Q11 RL1	44.6		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-02 — Lab Sample ID: AUI0080-08

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	19800	Q2 RL7	1310		mg/kg dry	20.0	☼	AK102/103	Total
Gasoline Range Organics	36.9		3.42		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.209	R1	0.0411		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	1.19		0.0411		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	6.34		0.123		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Detection Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-03 — Lab Sample ID: AUI0080-09

No Detections

Client Sample ID: NK-11-SS-04 — Lab Sample ID: AUI0080-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	40.9	Q11	31.4		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-05 — Lab Sample ID: AUI0080-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	110	Q11 RL1	58.1		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	23.4		5.01		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.0820	R1	0.0602		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.0716		0.0602		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.473		0.181		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-06 — Lab Sample ID: AUI0080-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	122	Q11 RL1	43.0		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	11.5		3.25		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.0415	R1	0.0390		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.519		0.0390		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	1.40		0.117		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-07 — Lab Sample ID: AUI0080-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	94.8	Q11	27.6		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	5.28		3.89		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.209	R1	0.140		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-08 — Lab Sample ID: AUI0080-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	2940	Q2 RL1	47.6		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	80.1	RL1	4.81		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.255	R1 RL1	0.0578		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.366	R1 RL1	0.0578		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	1.28	RL1	0.173		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-09 — Lab Sample ID: AUI0080-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	152	Q2	35.0		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-10 — Lab Sample ID: AUI0080-16

No Detections

Client Sample ID: NK-11-SS-11 — Lab Sample ID: AUI0080-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	5450	Q2 RL7	1110		mg/kg dry	20.0	☼	AK102/103	Total
Benzene	0.274		0.0233		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-11 (Continued) — Lab Sample ID: AUI0080-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.914	R1	0.0466		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Gasoline Range Organics - RE1	250	RL7	58.2		mg/kg dry	500	☼	AK101/EPA 8021B	Total
Toluene - RE1	1.06	RL7 BQC1	0.699		mg/kg dry	500	☼	AK101/EPA 8021B	Total
Ethylbenzene - RE1	12.3	RL7	0.699		mg/kg dry	500	☼	AK101/EPA 8021B	Total
Xylenes (total) - RE1	46.5	RL7	2.10		mg/kg dry	500	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-12 — Lab Sample ID: AUI0080-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	6960	Q2 RL7	700		mg/kg dry	10.0	☼	AK102/103	Total
Gasoline Range Organics	207		4.29		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Benzene	0.267		0.0258		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.766	R1	0.0516		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	8.18		0.0516		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total) - RE1	32.8	RL7	2.32		mg/kg dry	500	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-13 — Lab Sample ID: AUI0080-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	56.4		7.83		mg/kg dry	500	☼	EPA 8270 mod.	Total
2-Methylnaphthalene	95.0		7.83		mg/kg dry	500	☼	EPA 8270 mod.	Total
1-Methylnapthalene	71.0		7.83		mg/kg dry	500	☼	EPA 8270 mod.	Total
Acenaphthylene	1.47		0.0783		mg/kg dry	5.00	☼	EPA 8270 mod.	Total
Acenaphthene	2.01		0.0783		mg/kg dry	5.00	☼	EPA 8270 mod.	Total
Fluorene	1.20		0.0783		mg/kg dry	5.00	☼	EPA 8270 mod.	Total
Phenanthrene	0.548		0.0783		mg/kg dry	5.00	☼	EPA 8270 mod.	Total
Diesel Range Organics - RE1	14100	Q2 RL7	799		mg/kg dry	10.0	☼	AK102/103	Total
Gasoline Range Organics	111		3.14		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Benzene	0.182		0.0189		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	1.10		0.0378		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	4.51	C4	0.0378		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	21.1	C4 E	0.113		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-14 — Lab Sample ID: AUI0080-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	608	Q11 RL1	44.1		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-15 — Lab Sample ID: AUI0080-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	26100	Q2 RL7	1030		mg/kg dry	10.0	☼	AK102/103	Total
Gasoline Range Organics	16.6		9.89		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.642	C4 L2 R1	0.356		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-16 — Lab Sample ID: AUI0080-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	2420	Q2 RL1	53.3		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	6.59		3.58		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.0634	L2 R1 C4	0.0429		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.130	R1 C4 L2	0.129		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Detection Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-17 — Lab Sample ID: AUI0080-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	287	Q4 RL1	40.0		mg/kg dry	1.00	☼	AK102/103	Total
Residual Range Organics - RE1	114	Q4 RL1	99.9		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-18 — Lab Sample ID: AUI0080-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics - RE1	200	Q11	35.3		mg/kg dry	1.00	☼	AK102/103	Total

Client Sample ID: NK-11-SS-19 — Lab Sample ID: AUI0080-25

No Detections

Client Sample ID: NK-11-SS-20 — Lab Sample ID: AUI0080-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0916		0.0133		mg/kg dry	1.00	☼	EPA 8270 mod.	Total
2-Methylnaphthalene	0.158		0.0133		mg/kg dry	1.00	☼	EPA 8270 mod.	Total
1-Methylnapthalene	0.114		0.0133		mg/kg dry	1.00	☼	EPA 8270 mod.	Total
Ethylbenzene	0.161	C4 L2	0.0327		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.131	C4 L2	0.0980		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-21 — Lab Sample ID: AUI0080-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	1130	Q2	31.8		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	25.1		3.47		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.112	C4 L2 R1	0.0416		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.440	C4 L2	0.125		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-TB-02 — Lab Sample ID: AUI0080-28

No Detections

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-DW-01

Date Collected: 09/13/11 16:50
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-01

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00

Client Sample ID: NK-11-DW-01

Lab Sample ID: AUI0080-01

Date Collected: 09/13/11 16:50

Matrix: Water

Date Received: 09/21/11 09:10

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 18:24	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*88.0*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 18:24*	*1.00*
Toluene-d8	*88.8*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 18:24*	*1.00*
4-bromofluorobenzene	*88.6*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 18:24*	*1.00*

Client Sample ID: NK-11-DW-02

Lab Sample ID: AUI0080-02

Date Collected: 09/13/11 17:00

Matrix: Water

Date Received: 09/21/11 09:10

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 18:51	1.00

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-DW-02

Date Collected: 09/13/11 17:00
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-02

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 18:51	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*90.0*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 18:51*	*1.00*
Toluene-d8	*88.8*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 18:51*	*1.00*
4-bromofluorobenzene	*89.4*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 18:51*	*1.00*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-DW-03

Date Collected: 09/14/11 09:55
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-03

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00

Client Sample ID: NK-11-DW-03

Lab Sample ID: AUI0080-03

Date Collected: 09/14/11 09:55

Matrix: Water

Date Received: 09/21/11 09:10

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 19:18	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*87.0*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 19:18*	*1.00*
Toluene-d8	*91.0*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 19:18*	*1.00*
4-bromofluorobenzene	*83.8*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 19:18*	*1.00*

Client Sample ID: NK-11-WP-02

Lab Sample ID: AUI0080-04

Date Collected: 09/14/11 17:00

Matrix: Water

Date Received: 09/21/11 09:10

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Chloromethane	ND		50.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Vinyl chloride	ND		2.00		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Bromomethane	ND		50.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Chloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Trichlorofluoromethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1-Dichloroethene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Carbon disulfide	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Methylene chloride	ND		100		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Acetone	ND		250		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
trans-1,2-Dichloroethene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Methyl tert-butyl ether	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1-Dichloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
cis-1,2-Dichloroethene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
2,2-Dichloropropane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Bromochloromethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Chloroform	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Carbon tetrachloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1,1-Trichloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
2-Butanone	ND		100		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1-Dichloropropene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Benzene	**4.60**		2.00		ug/l		09/22/11 14:57	09/22/11 19:45	10.0

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-02

Date Collected: 09/14/11 17:00
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-04

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Trichloroethene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Dibromomethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2-Dichloropropane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Bromodichloromethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
cis-1,3-Dichloropropene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Toluene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
4-Methyl-2-pentanone	ND		100		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
trans-1,3-Dichloropropene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Tetrachloroethene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1,2-Trichloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Dibromochloromethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,3-Dichloropropane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2-Dibromoethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
2-Hexanone	ND		100		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Ethylbenzene	**10.8**		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Chlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1,1,2-Tetrachloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
m,p-Xylene	ND		20.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
o-Xylene	**25.9**		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Styrene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Bromoform	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Isopropylbenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
n-Propylbenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,1,2,2-Tetrachloroethane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Bromobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,3,5-Trimethylbenzene	**11.1**		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
2-Chlorotoluene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2,3-Trichloropropane	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
4-Chlorotoluene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
tert-Butylbenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2,4-Trimethylbenzene	**24.7**		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
sec-Butylbenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
p-Isopropyltoluene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,3-Dichlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,4-Dichlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
n-Butylbenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2-Dichlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2-Dibromo-3-chloropropane	ND		50.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Hexachlorobutadiene	ND		20.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2,4-Trichlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Naphthalene	ND		20.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
1,2,3-Trichlorobenzene	ND		10.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0
Xylenes (total)	**34.4**		30.0		ug/l		09/22/11 14:57	09/22/11 19:45	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*84.2*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 19:45*	*10.0*
Toluene-d8	*87.4*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 19:45*	*10.0*
4-bromofluorobenzene	*82.4*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 19:45*	*10.0*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-02

Date Collected: 09/14/11 17:00
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-04

Matrix: Water

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**3.67**	**H1 I01**	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
2-Methylnaphthalene	**6.27**	**H1 I01**	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
1-Methylnapthalene	**4.50**	**H1 I01**	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Acenaphthylene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Acenaphthene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Fluorene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Phenanthrene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Anthracene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Fluoranthene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Pyrene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Benzo (a) anthracene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Chrysene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Benzo (b) fluoranthene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Benzo (k) fluoranthene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Benzo (a) pyrene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Indeno (1,2,3-cd) pyrene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Dibenzo (a,h) anthracene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00
Benzo (ghi) perylene	ND	H1 I01	0.193		ug/l		09/29/11 12:57	09/29/11 19:38	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66.7*	*H1 I01*	*30 - 150*	*09/29/11 12:57*	*09/29/11 19:38*	*1.00*
2-FBP	*72.7*	*H1 I01*	*21 - 122*	*09/29/11 12:57*	*09/29/11 19:38*	*1.00*
p-Terphenyl-d14	*86.7*	*H1 I01*	*35 - 150*	*09/29/11 12:57*	*09/29/11 19:38*	*1.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**2.42**	**Q4**	0.403		mg/l		09/27/11 09:13	09/27/11 16:31	1.00
Residual Range Organics	**0.655**	**Q4**	0.403		mg/l		09/27/11 09:13	09/27/11 16:31	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*95.7*		*50 - 150*	*09/27/11 09:13*	*09/27/11 16:31*	*1.00*
Triacontane	*95.0*		*50 - 150*	*09/27/11 09:13*	*09/27/11 16:31*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**179**		50.0		ug/l		09/26/11 16:15	09/26/11 23:05	1.00
Benzene	**5.99**		0.500		ug/l		09/26/11 16:15	09/26/11 23:05	1.00
Toluene	**8.41**		0.500		ug/l		09/26/11 16:15	09/26/11 23:05	1.00
Ethylbenzene	**14.7**		0.500		ug/l		09/26/11 16:15	09/26/11 23:05	1.00
Xylenes (total)	**48.1**		1.50		ug/l		09/26/11 16:15	09/26/11 23:05	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*84.2*		*50 - 150*	*09/26/11 16:15*	*09/26/11 23:05*	*1.00*
4-BFB (PID)	*87.5*		*50 - 150*	*09/26/11 16:15*	*09/26/11 23:05*	*1.00*
a,a,a-TFT (FID)	*93.7*		*50 - 150*	*09/26/11 16:15*	*09/26/11 23:05*	*1.00*
a,a,a-TFT (PID)	*97.8*		*50 - 150*	*09/26/11 16:15*	*09/26/11 23:05*	*1.00*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-03

Date Collected: 09/14/11 15:20
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-05

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-03

Date Collected: 09/14/11 15:20
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-05

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 20:12	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*87.2*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 20:12*	*1.00*
Toluene-d8	*89.6*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 20:12*	*1.00*
4-bromofluorobenzene	*98.4*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 20:12*	*1.00*

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
2-Methylnaphthalene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
1-Methylnapthalene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Acenaphthylene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Acenaphthene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Fluorene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Phenanthrene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Anthracene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Fluoranthene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Pyrene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Benzo (a) anthracene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Chrysene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Benzo (b) fluoranthene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Benzo (k) fluoranthene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Benzo (a) pyrene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Indeno (1,2,3-cd) pyrene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Dibenzo (a,h) anthracene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00
Benzo (ghi) perylene	ND	H1 I01	0.320		ug/l		09/29/11 12:57	09/29/11 20:05	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62.3*	*H1 I01*	*30 - 150*	*09/29/11 12:57*	*09/29/11 20:05*	*1.00*
2-FBP	*60.3*	*H1 I01*	*21 - 122*	*09/29/11 12:57*	*09/29/11 20:05*	*1.00*
p-Terphenyl-d14	*98.3*	*H1 I01*	*35 - 150*	*09/29/11 12:57*	*09/29/11 20:05*	*1.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**1.68**	**Q11**	0.427		mg/l		09/27/11 09:13	09/27/11 17:37	1.00

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-03

Lab Sample ID: AUI0080-05

Date Collected: 09/14/11 15:20
Date Received: 09/21/11 09:10

Matrix: Water

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Residual Range Organics	ND		0.427		mg/l		09/27/11 09:13	09/27/11 17:37	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*104*		*50 - 150*	*09/27/11 09:13*	*09/27/11 17:37*	*1.00*
Triacontane	*101*		*50 - 150*	*09/27/11 09:13*	*09/27/11 17:37*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/26/11 16:15	09/26/11 22:41	1.00
Benzene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 22:41	1.00
Toluene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 22:41	1.00
Ethylbenzene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 22:41	1.00
Xylenes (total)	ND		1.50		ug/l		09/26/11 16:15	09/26/11 22:41	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*87.0*		*50 - 150*	*09/26/11 16:15*	*09/26/11 22:41*	*1.00*
4-BFB (PID)	*90.1*		*50 - 150*	*09/26/11 16:15*	*09/26/11 22:41*	*1.00*
a,a,a-TFT (FID)	*97.0*		*50 - 150*	*09/26/11 16:15*	*09/26/11 22:41*	*1.00*
a,a,a-TFT (PID)	*101*		*50 - 150*	*09/26/11 16:15*	*09/26/11 22:41*	*1.00*

Client Sample ID: NK-11-TB-01

Lab Sample ID: AUI0080-06

Date Collected: 09/13/11 16:30
Date Received: 09/21/11 09:10

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-TB-01

Date Collected: 09/13/11 16:30
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-06

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 20:39	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86.0*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 20:39*	*1.00*
Toluene-d8	*92.4*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 20:39*	*1.00*
4-bromofluorobenzene	*95.0*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 20:39*	*1.00*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-TB-01

Lab Sample ID: AUI0080-06

Date Collected: 09/13/11 16:30
Date Received: 09/21/11 09:10
Matrix: Water

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/21/11 14:26	09/22/11 14:22	1.00
Benzene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 14:22	1.00
Toluene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 14:22	1.00
Ethylbenzene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 14:22	1.00
Xylenes (total)	ND		1.50		ug/l		09/21/11 14:26	09/22/11 14:22	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*106*		*50 - 150*	*09/21/11 14:26*	*09/22/11 14:22*	*1.00*
4-BFB (PID)	*108*		*50 - 150*	*09/21/11 14:26*	*09/22/11 14:22*	*1.00*
a,a,a-TFT (FID)	*113*		*50 - 150*	*09/21/11 14:26*	*09/22/11 14:22*	*1.00*
a,a,a-TFT (PID)	*114*		*50 - 150*	*09/21/11 14:26*	*09/22/11 14:22*	*1.00*

Client Sample ID: NK-11-SS-01

Lab Sample ID: AUI0080-07

Date Collected: 09/16/11 18:00
Date Received: 09/21/11 09:10
Matrix: Soil
Percent Solids: 72.9

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**156**	**Q11 RL1**	44.6		mg/kg dry	☼	09/27/11 09:14	09/28/11 19:02	1.00
Residual Range Organics	ND	RL1	112		mg/kg dry	☼	09/27/11 09:14	09/28/11 19:02	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*99.9*		*50 - 150*	*09/27/11 09:14*	*09/28/11 19:02*	*1.00*
Triacontane	*99.6*		*50 - 150*	*09/27/11 09:14*	*09/28/11 19:02*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.75		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:18	33.3
Benzene	ND		0.0285		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:18	33.3
Toluene	ND		0.0571		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:18	33.3
Ethylbenzene	ND		0.0571		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:18	33.3
Xylenes (total)	ND		0.171		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:18	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*83.1*		*50 - 150*	*09/28/11 16:26*	*09/29/11 08:18*	*33.3*
a,a,a-TFT (FID)	*89.5*		*50 - 150*	*09/28/11 16:26*	*09/29/11 08:18*	*33.3*
4-BFB (PID)	*81.4*		*50 - 150*	*09/28/11 16:26*	*09/29/11 08:18*	*33.3*
a,a,a-TFT (PID)	*89.2*		*50 - 150*	*09/28/11 16:26*	*09/29/11 08:18*	*33.3*

Client Sample ID: NK-11-SS-02

Lab Sample ID: AUI0080-08

Date Collected: 09/16/11 18:40
Date Received: 09/21/11 09:10
Matrix: Soil
Percent Solids: 69.3

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**19800**	**Q2 RL7**	1310		mg/kg dry	☼	09/27/11 09:14	10/02/11 22:00	20.0
Residual Range Organics	ND	RL7	3270		mg/kg dry	☼	09/27/11 09:14	10/02/11 22:00	20.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*86.2*		*50 - 150*	*09/27/11 09:14*	*10/02/11 22:00*	*20.0*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-02

Lab Sample ID: AUI0080-08
Date Collected: 09/16/11 18:40
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69.3

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1 (Continued)

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Triacontane	100		50 - 150	09/27/11 09:14	10/02/11 22:00	20.0

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**36.9**		3.42		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:17	33.3
Benzene	ND		0.0206		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:17	33.3
Toluene	**0.209**	**R1**	0.0411		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:17	33.3
Ethylbenzene	**1.19**		0.0411		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:17	33.3
Xylenes (total)	**6.34**		0.123		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:17	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	176	ZX	50 - 150	09/28/11 16:26	09/29/11 15:17	33.3
a,a,a-TFT (FID)	56.1		50 - 150	09/28/11 16:26	09/29/11 15:17	33.3
4-BFB (PID)	120		50 - 150	09/28/11 16:26	09/29/11 15:17	33.3
a,a,a-TFT (PID)	47.6	ZX	50 - 150	09/28/11 16:26	09/29/11 15:17	33.3

Client Sample ID: NK-11-SS-03

Lab Sample ID: AUI0080-09
Date Collected: 09/16/11 19:50
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 70.1

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		27.8		mg/kg dry	☼	09/27/11 09:14	09/28/11 22:52	1.00
Residual Range Organics	ND		69.4		mg/kg dry	☼	09/27/11 09:14	09/28/11 22:52	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	107		50 - 150	09/27/11 09:14	09/28/11 22:52	1.00
Triacontane	102		50 - 150	09/27/11 09:14	09/28/11 22:52	1.00

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.76		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:43	33.3
Benzene	ND		0.0226		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:43	33.3
Toluene	ND		0.0451		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:43	33.3
Ethylbenzene	ND		0.0451		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:43	33.3
Xylenes (total)	ND		0.135		mg/kg dry	☼	09/28/11 16:26	09/29/11 08:43	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	111		50 - 150	09/28/11 16:26	09/29/11 08:43	33.3
a,a,a-TFT (FID)	109		50 - 150	09/28/11 16:26	09/29/11 08:43	33.3
4-BFB (PID)	111		50 - 150	09/28/11 16:26	09/29/11 08:43	33.3
a,a,a-TFT (PID)	108		50 - 150	09/28/11 16:26	09/29/11 08:43	33.3

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-04

Date Collected: 09/16/11 20:15
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-10

Matrix: Soil
Percent Solids: 66.3

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**40.9**	**Q11**	31.4		mg/kg dry	☼	09/27/11 09:14	09/29/11 06:02	1.00
Residual Range Organics	ND		78.4		mg/kg dry	☼	09/27/11 09:14	09/29/11 06:02	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*88.9*		*50 - 150*	*09/27/11 09:14*	*09/29/11 06:02*	*1.00*
Triacontane	*91.1*		*50 - 150*	*09/27/11 09:14*	*09/29/11 06:02*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.78		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:08	33.3
Benzene	ND		0.0227		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:08	33.3
Toluene	ND		0.0454		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:08	33.3
Ethylbenzene	ND		0.0454		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:08	33.3
Xylenes (total)	ND		0.136		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:08	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:08*	*33.3*
a,a,a-TFT (FID)	*102*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:08*	*33.3*
4-BFB (PID)	*101*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:08*	*33.3*
a,a,a-TFT (PID)	*102*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:08*	*33.3*

Client Sample ID: NK-11-SS-05

Date Collected: 09/17/11 15:15
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-11

Matrix: Soil
Percent Solids: 64

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**110**	**Q11 RL1**	58.1		mg/kg dry	☼	09/27/11 09:14	09/28/11 22:52	1.00
Residual Range Organics	ND	RL1	145		mg/kg dry	☼	09/27/11 09:14	09/28/11 22:52	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*98.7*		*50 - 150*	*09/27/11 09:14*	*09/28/11 22:52*	*1.00*
Triacontane	*96.5*		*50 - 150*	*09/27/11 09:14*	*09/28/11 22:52*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**23.4**		5.01		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:21	33.3
Benzene	ND		0.0301		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:21	33.3
Toluene	**0.0820**	**R1**	0.0602		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:21	33.3
Ethylbenzene	**0.0716**		0.0602		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:21	33.3
Xylenes (total)	**0.473**		0.181		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:21	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*159*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 10:21*	*33.3*
a,a,a-TFT (FID)	*105*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:21*	*33.3*
4-BFB (PID)	*106*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:21*	*33.3*
a,a,a-TFT (PID)	*101*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:21*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-06

Lab Sample ID: AUI0080-12

Date Collected: 09/17/11 16:00
Date Received: 09/21/11 09:10

Matrix: Soil
Percent Solids: 72.2

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**122**	**Q11 RL1**	43.0		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:24	1.00
Residual Range Organics	ND	RL1	108		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:24	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*105*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:24*	*1.00*
Triacontane	*99.8*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:24*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**11.5**		3.25		mg/kg dry	☼	09/28/11 16:26	09/29/11 11:11	33.3
Benzene	ND		0.0195		mg/kg dry	☼	09/28/11 16:26	09/29/11 11:11	33.3
Toluene	**0.0415**	**R1**	0.0390		mg/kg dry	☼	09/28/11 16:26	09/29/11 11:11	33.3
Ethylbenzene	**0.519**		0.0390		mg/kg dry	☼	09/28/11 16:26	09/29/11 11:11	33.3
Xylenes (total)	**1.40**		0.117		mg/kg dry	☼	09/28/11 16:26	09/29/11 11:11	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*118*		*50 - 150*	*09/28/11 16:26*	*09/29/11 11:11*	*33.3*
a,a,a-TFT (FID)	*79.0*		*50 - 150*	*09/28/11 16:26*	*09/29/11 11:11*	*33.3*
4-BFB (PID)	*101*		*50 - 150*	*09/28/11 16:26*	*09/29/11 11:11*	*33.3*
a,a,a-TFT (PID)	*77.4*		*50 - 150*	*09/28/11 16:26*	*09/29/11 11:11*	*33.3*

Client Sample ID: NK-11-SS-07

Lab Sample ID: AUI0080-13

Date Collected: 09/17/11 16:50
Date Received: 09/21/11 09:10

Matrix: Soil
Percent Solids: 65.7

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**94.8**	**Q11**	27.6		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:24	1.00
Residual Range Organics	ND		69.0		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:24	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*105*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:24*	*1.00*
Triacontane	*106*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:24*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**5.28**		3.89		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:46	33.3
Benzene	ND		0.0233		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:46	33.3
Toluene	ND		0.0467		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:46	33.3
Ethylbenzene	ND		0.0467		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:46	33.3
Xylenes (total)	**0.209**	**R1**	0.140		mg/kg dry	☼	09/28/11 16:26	09/29/11 10:46	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*123*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:46*	*33.3*
a,a,a-TFT (FID)	*99.8*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:46*	*33.3*
4-BFB (PID)	*97.7*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:46*	*33.3*
a,a,a-TFT (PID)	*100*		*50 - 150*	*09/28/11 16:26*	*09/29/11 10:46*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-08

Date Collected: 09/17/11 17:20
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-14

Matrix: Soil
Percent Solids: 69.4

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**2940**	**Q2 RL1**	47.6		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:59	1.00
Residual Range Organics	ND	RL1	119		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:59	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*125*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:59*	*1.00*
Triacontane	*115*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:59*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**80.1**	**RL1**	4.81		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:42	33.3
Benzene	ND	RL1	0.0289		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:42	33.3
Toluene	**0.255**	**R1 RL1**	0.0578		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:42	33.3
Ethylbenzene	**0.366**	**R1 RL1**	0.0578		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:42	33.3
Xylenes (total)	**1.28**	**RL1**	0.173		mg/kg dry	☼	09/28/11 16:26	09/29/11 15:42	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*439*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 15:42*	*33.3*
a,a,a-TFT (FID)	*86.8*		*50 - 150*	*09/28/11 16:26*	*09/29/11 15:42*	*33.3*
4-BFB (PID)	*176*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 15:42*	*33.3*
a,a,a-TFT (PID)	*81.5*		*50 - 150*	*09/28/11 16:26*	*09/29/11 15:42*	*33.3*

Client Sample ID: NK-11-SS-09

Date Collected: 09/17/11 17:50
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-15

Matrix: Soil
Percent Solids: 72.2

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**152**	**Q2**	35.0		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:59	1.00
Residual Range Organics	ND		87.5		mg/kg dry	☼	09/27/11 09:14	09/29/11 15:59	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*92.2*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:59*	*1.00*
Triacontane	*92.6*		*50 - 150*	*09/27/11 09:14*	*09/29/11 15:59*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.80		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:32	33.3
Benzene	ND		0.0228		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:32	33.3
Toluene	ND		0.0457		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:32	33.3
Ethylbenzene	ND		0.0457		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:32	33.3
Xylenes (total)	ND		0.137		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:32	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*106*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:32*	*33.3*
a,a,a-TFT (FID)	*81.9*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:32*	*33.3*
4-BFB (PID)	*103*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:32*	*33.3*
a,a,a-TFT (PID)	*81.5*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:32*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-10

Date Collected: 09/17/11 18:30
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-16

Matrix: Soil
Percent Solids: 65.8

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		37.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 16:33	1.00
Residual Range Organics	ND		93.1		mg/kg dry	☼	09/27/11 09:14	09/29/11 16:33	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*113*		*50 - 150*	*09/27/11 09:14*	*09/29/11 16:33*	*1.00*
Triacontane	*107*		*50 - 150*	*09/27/11 09:14*	*09/29/11 16:33*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.82		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:56	33.3
Benzene	ND		0.0229		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:56	33.3
Toluene	ND		0.0459		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:56	33.3
Ethylbenzene	ND		0.0459		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:56	33.3
Xylenes (total)	ND		0.138		mg/kg dry	☼	09/28/11 16:26	09/29/11 09:56	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*90.4*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:56*	*33.3*
a,a,a-TFT (FID)	*76.0*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:56*	*33.3*
4-BFB (PID)	*88.7*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:56*	*33.3*
a,a,a-TFT (PID)	*75.4*		*50 - 150*	*09/28/11 16:26*	*09/29/11 09:56*	*33.3*

Client Sample ID: NK-11-SS-11

Date Collected: 09/17/11 19:45
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-17

Matrix: Soil
Percent Solids: 71.6

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**5450**	**Q2 RL7**	1110		mg/kg dry	☼	09/27/11 09:14	09/29/11 16:33	20.0
Residual Range Organics	ND	RL7	2770		mg/kg dry	☼	09/27/11 09:14	09/29/11 16:33	20.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*90.7*		*50 - 150*	*09/27/11 09:14*	*09/29/11 16:33*	*20.0*
Triacontane	*91.8*		*50 - 150*	*09/27/11 09:14*	*09/29/11 16:33*	*20.0*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.274**		0.0233		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:07	33.3
Toluene	**0.914**	**R1**	0.0466		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:07	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*537*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 16:07*	*33.3*
a,a,a-TFT (FID)	*156*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 16:07*	*33.3*
4-BFB (PID)	*185*	*ZX*	*50 - 150*	*09/28/11 16:26*	*09/29/11 16:07*	*33.3*
a,a,a-TFT (PID)	*87.5*		*50 - 150*	*09/28/11 16:26*	*09/29/11 16:07*	*33.3*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**250**	**RL7**	58.2		mg/kg dry	☼	10/01/11 10:02	10/01/11 13:52	500
Benzene	ND	RL7 BQC1	0.350		mg/kg dry	☼	10/01/11 10:02	10/01/11 13:52	500
Toluene	**1.06**	**RL7 BQC1**	0.699		mg/kg dry	☼	10/01/11 10:02	10/01/11 13:52	500
Ethylbenzene	**12.3**	**RL7**	0.699		mg/kg dry	☼	10/01/11 10:02	10/01/11 13:52	500

Client Sample ID: NK-11-SS-11

Lab Sample ID: AUI0080-17

Date Collected: 09/17/11 19:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 71.6

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes (total)	46.5	RL7	2.10		mg/kg dry	☼	10/01/11 10:02	10/01/11 13:52	500

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	119		50 - 150	10/01/11 10:02	10/01/11 13:52	500
a,a,a-TFT (FID)	125		50 - 150	10/01/11 10:02	10/01/11 13:52	500
4-BFB (PID)	94.4		50 - 150	10/01/11 10:02	10/01/11 13:52	500
a,a,a-TFT (PID)	79.8		50 - 150	10/01/11 10:02	10/01/11 13:52	500

Client Sample ID: NK-11-SS-12

Lab Sample ID: AUI0080-18

Date Collected: 09/17/11 20:00
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 65.4

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	6960	Q2 RL7	700		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:06	10.0
Residual Range Organics	ND	RL7	1750		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:06	10.0

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	113		50 - 150	09/27/11 09:14	09/29/11 17:06	10.0
Triacontane	107		50 - 150	09/27/11 09:14	09/29/11 17:06	10.0

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	207		4.29		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:31	33.3
Benzene	0.267		0.0258		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:31	33.3
Toluene	0.766	R1	0.0516		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:31	33.3
Ethylbenzene	8.18		0.0516		mg/kg dry	☼	09/28/11 16:26	09/29/11 16:31	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	392	ZX	50 - 150	09/28/11 16:26	09/29/11 16:31	33.3
a,a,a-TFT (FID)	125		50 - 150	09/28/11 16:26	09/29/11 16:31	33.3
4-BFB (PID)	166	ZX	50 - 150	09/28/11 16:26	09/29/11 16:31	33.3
a,a,a-TFT (PID)	78.0		50 - 150	09/28/11 16:26	09/29/11 16:31	33.3

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes (total)	32.8	RL7	2.32		mg/kg dry	☼	10/01/11 10:02	10/01/11 15:53	500

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	92.1		50 - 150	10/01/11 10:02	10/01/11 15:53	500
a,a,a-TFT (FID)	111		50 - 150	10/01/11 10:02	10/01/11 15:53	500
4-BFB (PID)	79.8		50 - 150	10/01/11 10:02	10/01/11 15:53	500
a,a,a-TFT (PID)	76.1		50 - 150	10/01/11 10:02	10/01/11 15:53	500

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-13

Date Collected: 09/17/11 20:45
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-19

Matrix: Soil
Percent Solids: 73.8

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**56.4**		7.83		mg/kg dry	☼	09/27/11 10:06	10/03/11 09:52	500
2-Methylnaphthalene	**95.0**		7.83		mg/kg dry	☼	09/27/11 10:06	10/03/11 09:52	500
1-Methylnapthalene	**71.0**		7.83		mg/kg dry	☼	09/27/11 10:06	10/03/11 09:52	500
Acenaphthylene	**1.47**		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Acenaphthene	**2.01**		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Fluorene	**1.20**		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Phenanthrene	**0.548**		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Anthracene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Fluoranthene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Pyrene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Benzo (a) anthracene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Chrysene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Benzo (b) fluoranthene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Benzo (k) fluoranthene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Benzo (a) pyrene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Indeno (1,2,3-cd) pyrene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Dibenzo (a,h) anthracene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00
Benzo (ghi) perylene	ND		0.0783		mg/kg dry	☼	09/27/11 10:06	09/29/11 12:32	5.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*1200*	*Z3*	*30 - 140*	*09/27/11 10:06*	*10/03/11 09:52*	*500*
2-FBP	*76.0*		*30 - 140*	*09/27/11 10:06*	*09/29/11 12:32*	*5.00*
p-Terphenyl-d14	*87.0*		*30 - 150*	*09/27/11 10:06*	*09/29/11 12:32*	*5.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**14100**	**Q2 RL7**	799		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:06	10.0
Residual Range Organics	ND	RL7	2000		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:06	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*98.8*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:06*	*10.0*
Triacontane	*101*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:06*	*10.0*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**111**		3.14		mg/kg dry	☼	09/28/11 16:26	09/30/11 06:23	33.3
Benzene	**0.182**		0.0189		mg/kg dry	☼	09/28/11 16:26	09/30/11 06:23	33.3
Toluene	**1.10**		0.0378		mg/kg dry	☼	09/28/11 16:26	09/30/11 06:23	33.3
Ethylbenzene	**4.51**	**C4**	0.0378		mg/kg dry	☼	09/28/11 16:26	09/30/11 06:23	33.3
Xylenes (total)	**21.1**	**C4 E**	0.113		mg/kg dry	☼	09/28/11 16:26	09/30/11 06:23	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*145*		*50 - 150*	*09/28/11 16:26*	*09/30/11 06:23*	*33.3*
a,a,a-TFT (FID)	*104*		*50 - 150*	*09/28/11 16:26*	*09/30/11 06:23*	*33.3*
4-BFB (PID)	*102*		*50 - 150*	*09/28/11 16:26*	*09/30/11 06:23*	*33.3*
a,a,a-TFT (PID)	*80.1*		*50 - 150*	*09/28/11 16:26*	*09/30/11 06:23*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-14

Date Collected: 09/18/11 12:00
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-20

Matrix: Soil
Percent Solids: 60.4

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**608**	**Q11 RL1**	44.1		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:39	1.00
Residual Range Organics	ND	RL1	110		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:39	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*109*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:39*	*1.00*
Triacontane	*103*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:39*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.15		mg/kg dry	☼	09/29/11 16:50	09/29/11 21:03	33.3
Benzene	ND	L2	0.0249		mg/kg dry	☼	09/29/11 16:50	09/29/11 21:03	33.3
Toluene	ND	L2	0.0498		mg/kg dry	☼	09/29/11 16:50	09/29/11 21:03	33.3
Ethylbenzene	ND	C4 L2	0.0498		mg/kg dry	☼	09/29/11 16:50	09/29/11 21:03	33.3
Xylenes (total)	ND	C4 L2	0.149		mg/kg dry	☼	09/29/11 16:50	09/29/11 21:03	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*101*		*50 - 150*	*09/29/11 16:50*	*09/29/11 21:03*	*33.3*
a,a,a-TFT (FID)	*96.6*		*50 - 150*	*09/29/11 16:50*	*09/29/11 21:03*	*33.3*
4-BFB (PID)	*99.7*		*50 - 150*	*09/29/11 16:50*	*09/29/11 21:03*	*33.3*
a,a,a-TFT (PID)	*102*		*50 - 150*	*09/29/11 16:50*	*09/29/11 21:03*	*33.3*

Client Sample ID: NK-11-SS-15

Date Collected: 09/18/11 12:05
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-21

Matrix: Soil
Percent Solids: 47.1

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**26100**	**Q2 RL7**	1030		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:39	10.0
Residual Range Organics	ND	RL7	2590		mg/kg dry	☼	09/27/11 09:14	09/29/11 17:39	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*88.6*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:39*	*10.0*
Triacontane	*93.4*		*50 - 150*	*09/27/11 09:14*	*09/29/11 17:39*	*10.0*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**16.6**		9.89		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:55	33.3
Benzene	ND	L2	0.0594		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:55	33.3
Toluene	ND	L2	0.119		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:55	33.3
Ethylbenzene	ND	C4 L2	0.119		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:55	33.3
Xylenes (total)	**0.642**	**C4 L2 R1**	0.356		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:55	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*119*		*50 - 150*	*09/29/11 16:50*	*09/30/11 01:55*	*33.3*
a,a,a-TFT (FID)	*61.9*		*50 - 150*	*09/29/11 16:50*	*09/30/11 01:55*	*33.3*
4-BFB (PID)	*84.5*		*50 - 150*	*09/29/11 16:50*	*09/30/11 01:55*	*33.3*
a,a,a-TFT (PID)	*63.2*		*50 - 150*	*09/29/11 16:50*	*09/30/11 01:55*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-16

Lab Sample ID: AUI0080-22
Date Collected: 09/18/11 12:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69.9

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**2420**	**Q2 RL1**	53.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 18:45	1.00
Residual Range Organics	ND	RL1	133		mg/kg dry	☼	09/27/11 09:14	09/29/11 18:45	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*116*		*50 - 150*	*09/27/11 09:14*	*09/29/11 18:45*	*1.00*
Triacontane	*105*		*50 - 150*	*09/27/11 09:14*	*09/29/11 18:45*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**6.59**		3.58		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:20	33.3
Benzene	ND	L2	0.0215		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:20	33.3
Toluene	ND	L2	0.0429		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:20	33.3
Ethylbenzene	**0.0634**	**L2 R1 C4**	0.0429		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:20	33.3
Xylenes (total)	**0.130**	**R1 C4 L2**	0.129		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:20	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*146*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:20*	*33.3*
a,a,a-TFT (FID)	*69.3*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:20*	*33.3*
4-BFB (PID)	*99.1*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:20*	*33.3*
a,a,a-TFT (PID)	*71.9*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:20*	*33.3*

Client Sample ID: NK-11-SS-17

Lab Sample ID: AUI0080-23
Date Collected: 09/18/11 12:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 61.2

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**287**	**Q4 RL1**	40.0		mg/kg dry	☼	09/27/11 09:14	09/29/11 18:45	1.00
Residual Range Organics	**114**	**Q4 RL1**	99.9		mg/kg dry	☼	09/27/11 09:14	09/29/11 18:45	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*98.3*		*50 - 150*	*09/27/11 09:14*	*09/29/11 18:45*	*1.00*
Triacontane	*99.1*		*50 - 150*	*09/27/11 09:14*	*09/29/11 18:45*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		7.56		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:44	33.3
Benzene	ND	L2	0.0454		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:44	33.3
Toluene	ND	L2	0.0908		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:44	33.3
Ethylbenzene	ND	C4 L2	0.0908		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:44	33.3
Xylenes (total)	ND	C4 L2	0.272		mg/kg dry	☼	09/29/11 16:50	09/30/11 02:44	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*79.5*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:44*	*33.3*
a,a,a-TFT (FID)	*70.9*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:44*	*33.3*
4-BFB (PID)	*77.7*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:44*	*33.3*
a,a,a-TFT (PID)	*74.1*		*50 - 150*	*09/29/11 16:50*	*09/30/11 02:44*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-18

Date Collected: 09/18/11 13:35
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-24

Matrix: Soil
Percent Solids: 66.1

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	200	Q11	35.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 19:19	1.00
Residual Range Organics	ND		88.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 19:19	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*117*		*50 - 150*	*09/27/11 09:14*	*09/29/11 19:19*	*1.00*
Triacontane	*110*		*50 - 150*	*09/27/11 09:14*	*09/29/11 19:19*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.07		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:08	33.3
Benzene	ND	L2	0.0245		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:08	33.3
Toluene	ND	L2	0.0489		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:08	33.3
Ethylbenzene	ND	C4 L2	0.0489		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:08	33.3
Xylenes (total)	ND	C4 L2	0.147		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:08	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*83.5*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:08*	*33.3*
a,a,a-TFT (FID)	*46.1*	*Z6*	*50 - 150*	*09/29/11 16:50*	*09/30/11 03:08*	*33.3*
4-BFB (PID)	*84.7*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:08*	*33.3*
a,a,a-TFT (PID)	*47.9*	*Z6*	*50 - 150*	*09/29/11 16:50*	*09/30/11 03:08*	*33.3*

Client Sample ID: NK-11-SS-19

Date Collected: 09/18/11 14:30
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-25

Matrix: Soil
Percent Solids: 72.6

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND	RL1	39.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 19:19	1.00
Residual Range Organics	ND	RL1	98.3		mg/kg dry	☼	09/27/11 09:14	09/29/11 19:19	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*95.3*		*50 - 150*	*09/27/11 09:14*	*09/29/11 19:19*	*1.00*
Triacontane	*95.0*		*50 - 150*	*09/27/11 09:14*	*09/29/11 19:19*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.17		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:33	33.3
Benzene	ND	L2	0.0190		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:33	33.3
Toluene	ND	L2	0.0381		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:33	33.3
Ethylbenzene	ND	C4 L2	0.0381		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:33	33.3
Xylenes (total)	ND	C4 L2	0.114		mg/kg dry	☼	09/29/11 16:50	09/30/11 03:33	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*77.7*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:33*	*33.3*
a,a,a-TFT (FID)	*78.8*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:33*	*33.3*
4-BFB (PID)	*81.7*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:33*	*33.3*
a,a,a-TFT (PID)	*81.8*		*50 - 150*	*09/29/11 16:50*	*09/30/11 03:33*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-20

Date Collected: 09/18/11 15:20
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-26

Matrix: Soil
Percent Solids: 75

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.0916**		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
2-Methylnaphthalene	**0.158**		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
1-Methylnapthalene	**0.114**		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Acenaphthylene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Acenaphthene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Fluorene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Phenanthrene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Anthracene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Fluoranthene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Pyrene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Benzo (a) anthracene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Chrysene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Benzo (b) fluoranthene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Benzo (k) fluoranthene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Benzo (a) pyrene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Dibenzo (a,h) anthracene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00
Benzo (ghi) perylene	ND		0.0133		mg/kg dry	☼	09/27/11 10:06	10/03/11 10:18	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*102*		*30 - 140*	*09/27/11 10:06*	*10/03/11 10:18*	*1.00*
2-FBP	*67.8*		*30 - 140*	*09/27/11 10:06*	*10/03/11 10:18*	*1.00*
p-Terphenyl-d14	*107*		*30 - 150*	*09/27/11 10:06*	*10/03/11 10:18*	*1.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		48.2		mg/kg dry	☼	09/22/11 15:28	09/24/11 06:46	1.00
Residual Range Organics	ND		120		mg/kg dry	☼	09/22/11 15:28	09/24/11 06:46	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*85.1*		*50 - 150*	*09/22/11 15:28*	*09/24/11 06:46*	*1.00*
Triacontane	*84.4*		*50 - 150*	*09/22/11 15:28*	*09/24/11 06:46*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		2.72		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:34	33.3
Benzene	ND	L2	0.0163		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:34	33.3
Toluene	ND	L2	0.0327		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:34	33.3
Ethylbenzene	**0.161**	**C4 L2**	0.0327		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:34	33.3
Xylenes (total)	**0.131**	**C4 L2**	0.0980		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:34	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*84.5*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:34*	*33.3*
a,a,a-TFT (FID)	*52.2*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:34*	*33.3*
4-BFB (PID)	*82.8*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:34*	*33.3*
a,a,a-TFT (PID)	*55.1*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:34*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-21

Date Collected: 09/18/11 16:00
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-27

Matrix: Soil
Percent Solids: 74.7

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**1130**	**Q2**	31.8		mg/kg dry	☼	09/22/11 15:28	09/24/11 07:52	1.00
Residual Range Organics	ND		79.5		mg/kg dry	☼	09/22/11 15:28	09/24/11 07:52	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*97.1*		*50 - 150*	*09/22/11 15:28*	*09/24/11 07:52*	*1.00*
Triacontane	*76.9*		*50 - 150*	*09/22/11 15:28*	*09/24/11 07:52*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**25.1**		3.47		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:59	33.3
Benzene	ND	L2	0.0208		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:59	33.3
Toluene	ND	L2	0.0416		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:59	33.3
Ethylbenzene	**0.112**	**C4 L2 R1**	0.0416		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:59	33.3
Xylenes (total)	**0.440**	**C4 L2**	0.125		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:59	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*124*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:59*	*33.3*
a,a,a-TFT (FID)	*77.0*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:59*	*33.3*
4-BFB (PID)	*86.0*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:59*	*33.3*
a,a,a-TFT (PID)	*81.1*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:59*	*33.3*

Client Sample ID: NK-11-TB-02

Date Collected: 09/16/11 17:50
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0080-28

Matrix: Soil
Percent Solids: 100

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg dry	☼	09/28/11 16:26	09/29/11 05:01	33.3
Benzene	ND		0.0200		mg/kg dry	☼	09/28/11 16:26	09/29/11 05:01	33.3
Toluene	ND		0.0400		mg/kg dry	☼	09/28/11 16:26	09/29/11 05:01	33.3
Ethylbenzene	ND		0.0400		mg/kg dry	☼	09/28/11 16:26	09/29/11 05:01	33.3
Xylenes (total)	ND		0.120		mg/kg dry	☼	09/28/11 16:26	09/29/11 05:01	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*103*		*50 - 150*	*09/28/11 16:26*	*09/29/11 05:01*	*33.3*
a,a,a-TFT (FID)	*105*		*50 - 150*	*09/28/11 16:26*	*09/29/11 05:01*	*33.3*
4-BFB (PID)	*101*		*50 - 150*	*09/28/11 16:26*	*09/29/11 05:01*	*33.3*
a,a,a-TFT (PID)	*104*		*50 - 150*	*09/28/11 16:26*	*09/29/11 05:01*	*33.3*

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(66.5-145)	(75.4-120)	(68.4-123)
11I0178-BLK1	Method Blank	85.0	91.6	87.8
11I0178-BS1	Lab Control Sample	83.8	90.6	85.6
11I0178-MS1	Matrix Spike	79.0	91.6	86.4
11I0178-MSD1	Matrix Spike Duplicate	87.0	89.2	90.0
AUI0080-01	NK-11-DW-01	88.0	88.8	88.6
AUI0080-02	NK-11-DW-02	90.0	88.8	89.4
AUI0080-03	NK-11-DW-03	87.0	91.0	83.8
AUI0080-04	NK-11-WP-02	84.2	87.4	82.4
AUI0080-05	NK-11-WP-03	87.2	89.6	98.4
AUI0080-06	NK-11-TB-01	86.0	92.4	95.0

Surrogate Legend

DBFM = Dibromofluoromethane

TOL = Toluene-d8

BFB = 4-bromofluorobenzene

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(30-140)
AUI0080-19	NK-11-SS-13	1200 Z3

Surrogate Legend

NBZ = Nitrobenzene-d5

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	2-FBP	TPH
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-150)
AUI0080-19	NK-11-SS-13		76.0	87.0

Surrogate Legend

2-FBP = 2-FBP

TPH = p-Terphenyl-d14

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2-FBP	TPH	2-FBP	TPH	TPH
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-150)	(30-140)	(30-150)	(30-150)
11I0214-BLK1	Method Blank	86.8	88.6	95.4	88.6	95.4	95.4
11I0214-BS1	Lab Control Sample	86.8	84.2	89.0	84.2	89.0	89.0
11I0214-MS1	Matrix Spike	108	88.0	88.0	88.0	88.0	88.0

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2-FBP	TPH	2-FBP	TPH	TPH
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-150)	(30-140)	(30-150)	(30-150)
11I0214-MSD1	Matrix Spike Duplicate	81.0	81.0	87.0	81.0	87.0	87.0
AUI0080-26	NK-11-SS-20	102	67.8	107	67.8	107	107

Surrogate Legend

NBZ = Nitrobenzene-d5
2-FBP = 2-FBP
TPH = p-Terphenyl-d14

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	2-FBP	TPH
Lab Sample ID	Client Sample ID	(30-150)	(21-122)	(35-150)
11I0244-BLK1	Method Blank	82.7	84.0	98.6
11I0244-BS1	Lab Control Sample	81.1	81.2	83.9
11I0244-BSD1	Lab Control Sample Dup	75.0	73.6	86.7
AUI0080-04	NK-11-WP-02	66.7 H1 I01	72.7 H1 I01	86.7 H1 I01
AUI0080-05	NK-11-WP-03	62.3 H1 I01	60.3 H1 I01	98.3 H1 I01

Surrogate Legend

NBZ = Nitrobenzene-d5
2-FBP = 2-FBP
TPH = p-Terphenyl-d14

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)	
		1COD	TC
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
11I0107-BLK1	Method Blank	97.9	74.5
11I0107-DUP1	NK-11-SS-20	88.1	87.5
11I0107-MS1	NK-11-SS-20	90.0	83.6
11I0107-MSD1	NK-11-SS-20	95.6	88.8
11I0137-BLK1	Method Blank	125	114
11I0137-DUP1	NK-11-SS-01	93.1	91.4
11I0137-MS1	NK-11-SS-01	101	95.7
11I0137-MSD1	NK-11-SS-01	98.8	92.9
AUI0080-07 - RE1	NK-11-SS-01	99.9	99.6
AUI0080-08 - RE1	NK-11-SS-02	86.2	100
AUI0080-09 - RE1	NK-11-SS-03	107	102
AUI0080-10 - RE1	NK-11-SS-04	88.9	91.1
AUI0080-11 - RE1	NK-11-SS-05	98.7	96.5
AUI0080-12 - RE1	NK-11-SS-06	105	99.8
AUI0080-13 - RE1	NK-11-SS-07	105	106

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1COD (50-150)	TC (50-150)						
AUI0080-14 - RE1	NK-11-SS-08	125	115						
AUI0080-15 - RE1	NK-11-SS-09	92.2	92.6						
AUI0080-16 - RE1	NK-11-SS-10	113	107						
AUI0080-17 - RE1	NK-11-SS-11	90.7	91.8						
AUI0080-18 - RE1	NK-11-SS-12	113	107						
AUI0080-19 - RE1	NK-11-SS-13	98.8	101						
AUI0080-20 - RE1	NK-11-SS-14	109	103						
AUI0080-21 - RE1	NK-11-SS-15	88.6	93.4						
AUI0080-22 - RE1	NK-11-SS-16	116	105						
AUI0080-23 - RE1	NK-11-SS-17	98.3	99.1						
AUI0080-24 - RE1	NK-11-SS-18	117	110						
AUI0080-25 - RE1	NK-11-SS-19	95.3	95.0						
AUI0080-26	NK-11-SS-20	85.1	84.4						
AUI0080-27	NK-11-SS-21	97.1	76.9						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1COD (60-120)	TC (60-120)						
11I0107-BS1	Lab Control Sample	101	80.8						
11I0107-BSD1	Lab Control Sample Dup	104	81.2						
11I0137-BS1	Lab Control Sample	111	98.3						
11I0137-BSD1	Lab Control Sample Dup	118	109						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1COD (50-150)	TC (50-150)						
11I0136-BLK1	Method Blank	110	101						
11I0136-DUP1	NK-11-WP-02	98.9	98.3						
AUI0080-04	NK-11-WP-02	95.7	95.0						
AUI0080-05	NK-11-WP-03	104	101						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		1COD	TC						
Lab Sample ID	Client Sample ID	(60-120)	(60-120)						
11I0136-BS1	Lab Control Sample	118	105						
11I0136-BSD1	Lab Control Sample Dup	119	108						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	TFT(FID)						
Lab Sample ID	Client Sample ID	(60-120)	(60-120)						
11I0149-BS2	Lab Control Sample	107	116						
11I0149-BSD2	Lab Control Sample Dup	104	111						
11I0156-BS2	Lab Control Sample	86.3	112						
11I0156-BSD2	Lab Control Sample Dup	88.6	117						
11I0166-BS2	Lab Control Sample	104	94.2						
11I0166-BSD2	Lab Control Sample Dup	99.9	103						

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)

TFT(FID) = a,a,a-TFT (FID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	TFT(FID)	4-BFB (PID)	a,a-TFT (PI	4-BFB (PID)	4-BFB (PID)	a,a-TFT (PI	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(60-120)	(50-150)	(60-120)
11I0149-BLK1	Method Blank	82.9	114	81.7	113	81.7		113	
11I0149-DUP1	Duplicate	86.6	102	84.3	101	84.3		101	
11I0149-MS1	Matrix Spike			83.2	103	83.2		103	
11I0149-MSD1	Matrix Spike Duplicate			89.7	104	89.7		104	
11I0156-BLK1	Method Blank	73.8	105	78.3	110	78.3		110	
11I0156-DUP1	NK-11-SS-14	94.6	82.2	94.9	86.8	94.9		86.8	
11I0156-MS1	NK-11-SS-14			81.6	77.3	81.6		77.3	
11I0156-MSD1	NK-11-SS-14			73.5	77.2	73.5		77.2	
11I0166-BLK1	Method Blank	97.5	117	99.5	116	99.5		116	
11I0166-DUP1	Duplicate	423 ZX	163 ZX	176 ZX	127	176 ZX		127	
11I0166-MS1	NK-11-SS-11	192 ZX	209 ZX	126	102	126		102	
11I0166-MSD1	NK-11-SS-11	143	148	107	84.3	107		84.3	
AUI0080-07	NK-11-SS-01	83.1	89.5	81.4	89.2	81.4		89.2	
AUI0080-08	NK-11-SS-02	176 ZX	56.1	120	47.6 ZX	120		47.6 ZX	
AUI0080-09	NK-11-SS-03	111	109	111	108	111		108	
AUI0080-10	NK-11-SS-04	102	102	101	102	101		102	
AUI0080-11	NK-11-SS-05	159 ZX	105	106	101	106		101	
AUI0080-12	NK-11-SS-06	118	79.0	101	77.4	101		77.4	
AUI0080-13	NK-11-SS-07	123	99.8	97.7	100	97.7		100	
AUI0080-14	NK-11-SS-08	439 ZX	86.8	176 ZX	81.5	176 ZX		81.5	

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	TFT(FID)	4-BFB (PID)	a,a-TFT (PI	4-BFB (PID)	4-BFB (PID)	a,a-TFT (PI	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(60-120)	(50-150)	(60-120)
AUI0080-15	NK-11-SS-09	106	81.9	103	81.5	103		81.5	
AUI0080-16	NK-11-SS-10	90.4	76.0	88.7	75.4	88.7		75.4	
AUI0080-17	NK-11-SS-11	537 ZX	156 ZX	185 ZX	87.5	185 ZX		87.5	
AUI0080-17 - RE1	NK-11-SS-11	119	125	94.4	79.8	94.4		79.8	
AUI0080-18	NK-11-SS-12	392 ZX	125	166 ZX	78.0	166 ZX		78.0	
AUI0080-18 - RE1	NK-11-SS-12	92.1	111	79.8	76.1	79.8		76.1	
AUI0080-19	NK-11-SS-13	145	104	102	80.1	102		80.1	
AUI0080-20	NK-11-SS-14	101	96.6	99.7	102	99.7		102	
AUI0080-21	NK-11-SS-15	119	61.9	84.5	63.2	84.5		63.2	
AUI0080-22	NK-11-SS-16	146	69.3	99.1	71.9	99.1		71.9	
AUI0080-23	NK-11-SS-17	79.5	70.9	77.7	74.1	77.7		74.1	
AUI0080-24	NK-11-SS-18	83.5	46.1 Z6	84.7	47.9 Z6	84.7		47.9 Z6	
AUI0080-25	NK-11-SS-19	77.7	78.8	81.7	81.8	81.7		81.8	
AUI0080-26	NK-11-SS-20	84.5	52.2	82.8	55.1	82.8		55.1	
AUI0080-27	NK-11-SS-21	124	77.0	86.0	81.1	86.0		81.1	
AUI0080-28	NK-11-TB-02	103	105	101	104	101		104	

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)
TFT(FID) = a,a,a-TFT (FID)
4-BFB (PID) = 4-BFB (PID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)	
		4-BFB (PID)	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(60-120)	(60-120)
11I0149-BS1	Lab Control Sample	111	111
11I0149-BSD1	Lab Control Sample Dup	107	108
11I0156-BS1	Lab Control Sample	70.9	75.4
11I0156-BSD1	Lab Control Sample Dup	94.2	107
11I0166-BS1	Lab Control Sample	93.9	112
11I0166-BSD1	Lab Control Sample Dup	94.5	97.1

Surrogate Legend

4-BFB (PID) = 4-BFB (PID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	4-BFB (PID)	TFT(FID)	a,a-TFT (PI	TFT(FID)	TFT(FID)	a,a-TFT (PI	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(60-120)	(50-150)	(60-120)
11I0101-BLK1	Method Blank	131	134	116	117	116		117	
11I0101-DUP1	Duplicate	122		107		107			
11I0101-MS1	Matrix Spike	106		102		102			
11I0101-MSD1	Matrix Spike Duplicate	99.4		94.9		94.9			
11I0135-BLK1	Method Blank	85.7	92.0	102	106	102		106	

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	4-BFB (PID)	TFT(FID)	a,a-TFT (PI	TFT(FID)	TFT(FID)	a,a-TFT (PI	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(60-120)	(50-150)	(60-120)
11I0135-DUP1	NK-11-WP-02	88.1	91.8	96.1	101	96.1		101	
AUI0080-04	NK-11-WP-02	84.2	87.5	93.7	97.8	93.7		97.8	
AUI0080-05	NK-11-WP-03	87.0	90.1	97.0	101	97.0		101	
AUI0080-06	NK-11-TB-01	106	108	113	114	113		114	

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)
4-BFB (PID) = 4-BFB (PID)
TFT(FID) = a,a,a-TFT (FID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)	
		4-BFB (PID)	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(60-120)	(60-120)
11I0101-BS1	Lab Control Sample	84.4	80.2
11I0101-BSD1	Lab Control Sample Dup	72.7	71.0
11I0135-BS1	Lab Control Sample	87.8	104
11I0135-BSD1	Lab Control Sample Dup	90.5	107

Surrogate Legend

4-BFB (PID) = 4-BFB (PID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)	
		4-BFB (FID)	TFT(FID)
Lab Sample ID	Client Sample ID	(60-120)	(60-120)
11I0101-BS2	Lab Control Sample	78.5	84.6
11I0101-BSD2	Lab Control Sample Dup	89.2	96.3
11I0135-BS2	Lab Control Sample	81.6	101
11I0135-BSD2	Lab Control Sample Dup	84.1	107

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)
TFT(FID) = a,a,a-TFT (FID)

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11I0178-BLK1
Matrix: Water
Analysis Batch: 11I0178

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0178_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Chloromethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Vinyl chloride	ND		0.200		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Bromomethane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Chloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Trichlorofluoromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Carbon disulfide	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Methylene chloride	ND		10.0		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Acetone	ND		25.0		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1-Dichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
2,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Bromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Chloroform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Carbon tetrachloride	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
2-Butanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Benzene	ND		0.200		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Trichloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Dibromomethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Bromodichloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Toluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Tetrachloroethene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Dibromochloromethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,3-Dichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2-Dibromoethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
2-Hexanone	ND		10.0		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Ethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Chlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
m,p-Xylene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
o-Xylene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Styrene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Bromoform	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Isopropylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
n-Propylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Bromobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11I0178-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 11I0178 — **Prep Batch: 11I0178_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
4-Chlorotoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
tert-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
sec-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
p-Isopropyltoluene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
n-Butylbenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Hexachlorobutadiene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Naphthalene	ND		2.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00
Xylenes (total)	ND		3.00		ug/l		09/22/11 14:57	09/22/11 15:41	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*85.0*		*66.5 - 145*	*09/22/11 14:57*	*09/22/11 15:41*	*1.00*
Toluene-d8	*91.6*		*75.4 - 120*	*09/22/11 14:57*	*09/22/11 15:41*	*1.00*
4-bromofluorobenzene	*87.8*		*68.4 - 123*	*09/22/11 14:57*	*09/22/11 15:41*	*1.00*

Lab Sample ID: 11I0178-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 11I0178 — **Prep Batch: 11I0178_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	10.0	9.89		ug/l		98.9	60.4 - 140
Benzene	10.0	10.0		ug/l		100	72.9 - 120
Trichloroethene	10.0	10.3		ug/l		103	73.7 - 120
Toluene	10.0	11.3		ug/l		113	72.4 - 132
Chlorobenzene	10.0	10.8		ug/l		108	80 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*83.8*		*66.5 - 145*
Toluene-d8	*90.6*		*75.4 - 120*
4-bromofluorobenzene	*85.6*		*68.4 - 123*

Lab Sample ID: 11I0178-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 11I0178 — **Prep Batch: 11I0178_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	ND		10.0	9.90		ug/l		99.0	52.5 - 135
Benzene	ND		10.0	9.58		ug/l		95.8	72.3 - 120
Trichloroethene	6.67		10.0	17.0		ug/l		103	80 - 120
Toluene	0.400		10.0	11.6		ug/l		112	62.7 - 137
Chlorobenzene	ND		10.0	10.2		ug/l		102	78.9 - 120

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11I0178-MS1
Matrix: Water
Analysis Batch: 11I0178

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 11I0178_P

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*79.0*		*66.5 - 145*
Toluene-d8	*91.6*		*75.4 - 120*
4-bromofluorobenzene	*86.4*		*68.4 - 123*

Lab Sample ID: 11I0178-MSD1
Matrix: Water
Analysis Batch: 11I0178

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11I0178_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		10.0	9.83		ug/l		98.3	52.5 - 135	0.710	10.5
Benzene	ND		10.0	9.67		ug/l		96.7	72.3 - 120	0.935	10.7
Trichloroethene	6.67		10.0	16.8		ug/l		101	80 - 120	1.36	10
Toluene	0.400		10.0	11.2		ug/l		108	62.7 - 137	4.21	13
Chlorobenzene	ND		10.0	10.3		ug/l		103	78.9 - 120	1.27	11.2

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Dibromofluoromethane	*87.0*		*66.5 - 145*
Toluene-d8	*89.2*		*75.4 - 120*
4-bromofluorobenzene	*90.0*		*68.4 - 123*

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 11I0214-BLK1
Matrix: Soil
Analysis Batch: 11I0214

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0214_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
1-Methylnapthalene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Acenaphthene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Fluorene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Phenanthrene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Anthracene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Fluoranthene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Pyrene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Chrysene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Dibenzo (a,h) anthracene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		09/27/11 10:06	09/29/11 11:39	1.00

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 11I0214-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0214 — **Prep Batch: 11I0214_P**

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	86.8		30 - 140	09/27/11 10:06	09/29/11 11:39	1.00
2-FBP	88.6		30 - 140	09/27/11 10:06	09/29/11 11:39	1.00
p-Terphenyl-d14	95.4		30 - 150	09/27/11 10:06	09/29/11 11:39	1.00

Lab Sample ID: 11I0214-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0214 — **Prep Batch: 11I0214_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Naphthalene	0.133	0.120		mg/kg wet		90.0	40 - 120
Fluorene	0.133	0.113		mg/kg wet		85.0	40 - 130
Chrysene	0.133	0.114		mg/kg wet		85.5	41 - 130
Indeno (1,2,3-cd) pyrene	0.133	0.115		mg/kg wet		86.0	40 - 130

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	86.8		30 - 140
2-FBP	84.2		30 - 140
p-Terphenyl-d14	89.0		30 - 150

Lab Sample ID: 11I0214-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0214 — **Prep Batch: 11I0214_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Naphthalene	ND		0.138	0.0485		mg/kg dry	☼	35.0	30 - 120
Fluorene	0.0768		0.138	0.208		mg/kg dry	☼	94.5	30 - 140
Chrysene	0.896		0.138	2.64	M1	mg/kg dry	☼	1260	30 - 133
Indeno (1,2,3-cd) pyrene	0.631		0.138	1.18	M1	mg/kg dry	☼	394	30 - 140

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
Nitrobenzene-d5	108		30 - 140
2-FBP	88.0		30 - 140
p-Terphenyl-d14	88.0		30 - 150

Lab Sample ID: 11I0214-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0214 — **Prep Batch: 11I0214_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.389	0.340	R	mg/kg dry	☼	87.5	30 - 120	150	35
Fluorene	0.0768		0.389	0.369	R	mg/kg dry	☼	75.2	30 - 140	56.0	35
Chrysene	0.896		0.389	0.942	M8	mg/kg dry	☼	11.9	30 - 133	94.9	35
Indeno (1,2,3-cd) pyrene	0.631		0.389	0.962		mg/kg dry	☼	85.0	30 - 140	20.1	35

Surrogate	Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Limits
Nitrobenzene-d5	81.0		30 - 140
2-FBP	81.0		30 - 140

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 11I0214-MSD1
Matrix: Soil
Analysis Batch: 11I0214

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11I0214_P

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
p-Terphenyl-d14	*87.0*		*30 - 150*

Lab Sample ID: 11I0244-BLK1
Matrix: Water
Analysis Batch: 11I0244

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0244_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
2-Methylnaphthalene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
1-Methylnapthalene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Acenaphthylene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Acenaphthene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Fluorene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Phenanthrene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Anthracene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Fluoranthene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Pyrene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Benzo (a) anthracene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Chrysene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Benzo (b) fluoranthene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Benzo (k) fluoranthene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Benzo (a) pyrene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Indeno (1,2,3-cd) pyrene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Dibenzo (a,h) anthracene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00
Benzo (ghi) perylene	ND		0.100		ug/l		09/29/11 12:57	09/29/11 13:52	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82.7*		*30 - 150*	*09/29/11 12:57*	*09/29/11 13:52*	*1.00*
2-FBP	*84.0*		*21 - 122*	*09/29/11 12:57*	*09/29/11 13:52*	*1.00*
p-Terphenyl-d14	*98.6*		*35 - 150*	*09/29/11 12:57*	*09/29/11 13:52*	*1.00*

Lab Sample ID: 11I0244-BS1
Matrix: Water
Analysis Batch: 11I0244

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11I0244_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Naphthalene	2.00	1.68		ug/l		84.2	40 - 130
Fluorene	2.00	1.63		ug/l		81.5	40 - 120
Chrysene	2.00	1.60		ug/l		80.2	40 - 120
Indeno (1,2,3-cd) pyrene	2.00	1.58		ug/l		78.8	40 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*81.1*		*30 - 150*
2-FBP	*81.2*		*21 - 122*
p-Terphenyl-d14	*83.9*		*35 - 150*

Method: EPA 8270 mod. - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 11I0244-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 11I0244 — **Prep Batch: 11I0244_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Naphthalene			2.00	1.54		ug/l		77.2	40 - 130	8.67	30
Fluorene			2.00	1.56		ug/l		78.0	40 - 120	4.39	30
Chrysene			2.00	1.65		ug/l		82.5	40 - 120	2.76	30
Indeno (1,2,3-cd) pyrene			2.00	1.56		ug/l		77.8	40 - 120	1.28	30

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
Nitrobenzene-d5	*75.0*		*30 - 150*
2-FBP	*73.6*		*21 - 122*
p-Terphenyl-d14	*86.7*		*35 - 150*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Lab Sample ID: 11I0107-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000745 — **Prep Batch: 11I0107_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		20.0		mg/kg wet		09/22/11 15:28	09/24/11 06:12	1.00
Residual Range Organics	ND		50.0		mg/kg wet		09/22/11 15:28	09/24/11 06:12	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*97.9*		*50 - 150*	*09/22/11 15:28*	*09/24/11 06:12*	*1.00*
Triacontane	*74.5*		*50 - 150*	*09/22/11 15:28*	*09/24/11 06:12*	*1.00*

Lab Sample ID: 11I0107-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000745 — **Prep Batch: 11I0107_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Diesel Range Organics			126	105		mg/kg wet		83.1	75 - 125		
Residual Range Organics			126	102		mg/kg wet		80.7	60 - 120		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctadecane	*101*		*60 - 120*
Triacontane	*80.8*		*60 - 120*

Lab Sample ID: 11I0107-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000745 — **Prep Batch: 11I0107_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics			126	106		mg/kg wet		83.7	75 - 125	0.714	20
Residual Range Organics			126	104		mg/kg wet		82.4	60 - 120	2.04	20

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 11I0107-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000745 — **Prep Batch: 11I0107_P**

Surrogate	LCS Dup % Recovery	LCS Dup Qualifier	Limits
1-Chlorooctadecane	104		60 - 120
Triacontane	81.2		60 - 120

Lab Sample ID: 11I0107-MS1 — **Client Sample ID: NK-11-SS-20**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000746 — **Prep Batch: 11I0107_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics	44.2		300	269	M8	mg/kg dry	☼	74.9	75 - 125
Residual Range Organics	ND		300	258		mg/kg dry	☼	85.9	60 - 120

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
1-Chlorooctadecane	90.0		50 - 150
Triacontane	83.6		50 - 150

Lab Sample ID: 11I0107-MSD1 — **Client Sample ID: NK-11-SS-20**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000746 — **Prep Batch: 11I0107_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics	44.2		301	286		mg/kg dry	☼	80.4	75 - 125	6.21	25
Residual Range Organics	ND		301	276		mg/kg dry	☼	91.8	60 - 120	6.94	25

Surrogate	Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Limits
1-Chlorooctadecane	95.6		50 - 150
Triacontane	88.8		50 - 150

Lab Sample ID: 11I0107-DUP1 — **Client Sample ID: NK-11-SS-20**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000746 — **Prep Batch: 11I0107_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Organics	44.2			28.3	R4	mg/kg dry	☼			43.9	20
Residual Range Organics	ND			ND		mg/kg dry	☼				50

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
1-Chlorooctadecane	88.1		50 - 150
Triacontane	87.5		50 - 150

Lab Sample ID: 11I0136-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000763 — **Prep Batch: 11I0136_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.500		mg/l		09/27/11 09:13	09/27/11 15:59	1.00
Residual Range Organics	ND		0.500		mg/l		09/27/11 09:13	09/27/11 15:59	1.00

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 11I0136-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000763 — **Prep Batch: 11I0136_P**

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	110		50 - 150	09/27/11 09:13	09/27/11 15:59	1.00
Triacontane	101		50 - 150	09/27/11 09:13	09/27/11 15:59	1.00

Lab Sample ID: 11I0136-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000763 — **Prep Batch: 11I0136_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Diesel Range Organics			10.1	8.56		mg/l		84.8	75 - 125		
Residual Range Organics			10.1	8.36		mg/l		82.8	60 - 120		

Surrogate	LCS % Recovery	LCS Qualifier	Limits
1-Chlorooctadecane	118		60 - 120
Triacontane	105		60 - 120

Lab Sample ID: 11I0136-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000763 — **Prep Batch: 11I0136_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics			10.1	8.82		mg/l		87.3	75 - 125	2.90	20
Residual Range Organics			10.1	8.63		mg/l		85.4	60 - 120	3.13	20

Surrogate	LCS Dup % Recovery	LCS Dup Qualifier	Limits
1-Chlorooctadecane	119		60 - 120
Triacontane	108		60 - 120

Lab Sample ID: 11I0136-DUP1 — **Client Sample ID: NK-11-WP-02**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000764 — **Prep Batch: 11I0136_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Organics	2.42	Q4		2.61		mg/l				7.45	20
Residual Range Organics	0.655	Q4		0.981		mg/l				39.8	50

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
1-Chlorooctadecane	98.9		50 - 150
Triacontane	98.3		50 - 150

Lab Sample ID: 11I0137-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000768 — **Prep Batch: 11I0137_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		20.0		mg/kg wet		09/27/11 09:14	09/28/11 18:30	1.00
Residual Range Organics	ND		50.0		mg/kg wet		09/27/11 09:14	09/28/11 18:30	1.00

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 11I0137-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000768 — **Prep Batch: 11I0137_P**

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	125		50 - 150	09/27/11 09:14	09/28/11 18:30	1.00
Triacontane	114		50 - 150	09/27/11 09:14	09/28/11 18:30	1.00

Lab Sample ID: 11I0137-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000768 — **Prep Batch: 11I0137_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics	126	102		mg/kg wet		80.9	75 - 125
Residual Range Organics	126	94.1		mg/kg wet		74.6	60 - 120

Surrogate	LCS % Recovery	LCS Qualifier	Limits
1-Chlorooctadecane	111		60 - 120
Triacontane	98.3		60 - 120

Lab Sample ID: 11I0137-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000768 — **Prep Batch: 11I0137_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics	126	115		mg/kg wet		91.2	75 - 125	12.0	20
Residual Range Organics	126	107		mg/kg wet		84.4	60 - 120	12.4	20

Surrogate	LCS Dup % Recovery	LCS Dup Qualifier	Limits
1-Chlorooctadecane	118		60 - 120
Triacontane	109		60 - 120

Lab Sample ID: 11I0137-MS1 — **Client Sample ID: NK-11-SS-01**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000769 — **Prep Batch: 11I0137_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics	156	Q11 RL1	266	905	RL1 M7	mg/kg dry	☼	281	75 - 125
Residual Range Organics	38.9	RL1	266	252	RL1	mg/kg dry	☼	80.0	60 - 120

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
1-Chlorooctadecane	101		50 - 150
Triacontane	95.7		50 - 150

Lab Sample ID: 11I0137-MSD1 — **Client Sample ID: NK-11-SS-01**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000769 — **Prep Batch: 11I0137_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics	156	Q11 RL1	255	700	RL1 M7	mg/kg dry	☼	213	75 - 125	25.6	25
Residual Range Organics	38.9	RL1	255	241	RL1	mg/kg dry	☼	79.1	60 - 120	4.50	25

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 11I0137-MSD1 — **Client Sample ID: NK-11-SS-01**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000769 — **Prep Batch: 11I0137_P**

Surrogate	Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Limits
1-Chlorooctadecane	98.8		50 - 150
Triacontane	92.9		50 - 150

Lab Sample ID: 11I0137-DUP1 — **Client Sample ID: NK-11-SS-01**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000769 — **Prep Batch: 11I0137_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Organics	156	Q11 RL1		842	R2 RL1	mg/kg dry	☼			138	20
Residual Range Organics	38.9	RL1		40.7	RL1	mg/kg dry	☼			4.55	50

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
1-Chlorooctadecane	93.1		50 - 150
Triacontane	91.4		50 - 150

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Lab Sample ID: 11I0101-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/21/11 14:26	09/22/11 08:35	1.00
Benzene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 08:35	1.00
Toluene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 08:35	1.00
Ethylbenzene	ND		0.500		ug/l		09/21/11 14:26	09/22/11 08:35	1.00
Xylenes (total)	ND		1.50		ug/l		09/21/11 14:26	09/22/11 08:35	1.00

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	131		50 - 150	09/21/11 14:26	09/22/11 08:35	1.00
4-BFB (PID)	134		50 - 150	09/21/11 14:26	09/22/11 08:35	1.00
a,a,a-TFT (FID)	116		50 - 150	09/21/11 14:26	09/22/11 08:35	1.00
a,a,a-TFT (PID)	117		50 - 150	09/21/11 14:26	09/22/11 08:35	1.00

Lab Sample ID: 11I0101-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			20.0	19.6		ug/l		97.9	70 - 130		
Toluene			20.0	19.5		ug/l		97.5	70 - 130		
Ethylbenzene			20.0	19.9		ug/l		99.5	70 - 130		
Xylenes (total)			60.0	60.4		ug/l		101	70 - 130		

Surrogate	LCS % Recovery	LCS Qualifier	Limits
4-BFB (PID)	84.4		60 - 120
a,a,a-TFT (PID)	80.2		60 - 120

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0101-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			500	468		ug/l		93.7	60 - 120		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*78.5*		*60 - 120*
a,a,a-TFT (FID)	*84.6*		*60 - 120*

Lab Sample ID: 11I0101-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	20.3		ug/l		101	70 - 130	3.56	20
Toluene			20.0	20.1		ug/l		100	70 - 130	2.98	20
Ethylbenzene			20.0	20.2		ug/l		101	70 - 130	1.73	20
Xylenes (total)			60.0	61.3		ug/l		102	70 - 130	1.49	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*72.7*		*60 - 120*
a,a,a-TFT (PID)	*71.0*		*60 - 120*

Lab Sample ID: 11I0101-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			500	512		ug/l		102	60 - 120	8.88	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*89.2*		*60 - 120*
a,a,a-TFT (FID)	*96.3*		*60 - 120*

Lab Sample ID: 11I0101-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics	31.7		500	507		ug/l		95.0	70 - 130		

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (FID)	*106*		*50 - 150*
a,a,a-TFT (FID)	*102*		*50 - 150*

Lab Sample ID: 11I0101-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics	31.7		500	491		ug/l		91.8	70 - 130	3.24	20

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0101-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (FID)	*99.4*		*50 - 150*
a,a,a-TFT (FID)	*94.9*		*50 - 150*

Lab Sample ID: 11I0101-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000738 — **Prep Batch: 11I0101_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	31.7			37.6		ug/l				17.1	20

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*122*		*50 - 150*
a,a,a-TFT (FID)	*107*		*50 - 150*

Lab Sample ID: 11I0135-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/26/11 16:15	09/26/11 19:55	1.00
Benzene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 19:55	1.00
Toluene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 19:55	1.00
Ethylbenzene	ND		0.500		ug/l		09/26/11 16:15	09/26/11 19:55	1.00
Xylenes (total)	ND		1.50		ug/l		09/26/11 16:15	09/26/11 19:55	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*85.7*		*50 - 150*	*09/26/11 16:15*	*09/26/11 19:55*	*1.00*
4-BFB (PID)	*92.0*		*50 - 150*	*09/26/11 16:15*	*09/26/11 19:55*	*1.00*
a,a,a-TFT (FID)	*102*		*50 - 150*	*09/26/11 16:15*	*09/26/11 19:55*	*1.00*
a,a,a-TFT (PID)	*106*		*50 - 150*	*09/26/11 16:15*	*09/26/11 19:55*	*1.00*

Lab Sample ID: 11I0135-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			20.0	18.0		ug/l		90.0	70 - 130		
Toluene			20.0	17.7		ug/l		88.4	70 - 130		
Ethylbenzene			20.0	16.5		ug/l		82.7	70 - 130		
Xylenes (total)			60.0	48.5		ug/l		80.9	70 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*87.8*		*60 - 120*
a,a,a-TFT (PID)	*104*		*60 - 120*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0135-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			500	417		ug/l		83.5	60 - 120		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*81.6*		*60 - 120*
a,a,a-TFT (FID)	*101*		*60 - 120*

Lab Sample ID: 11I0135-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	18.9		ug/l		94.6	70 - 130	4.97	20
Toluene			20.0	18.2		ug/l		90.8	70 - 130	2.67	20
Ethylbenzene			20.0	16.9		ug/l		84.6	70 - 130	2.27	20
Xylenes (total)			60.0	49.5		ug/l		82.5	70 - 130	2.03	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*90.5*		*60 - 120*
a,a,a-TFT (PID)	*107*		*60 - 120*

Lab Sample ID: 11I0135-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			500	453		ug/l		90.7	60 - 120	8.31	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*84.1*		*60 - 120*
a,a,a-TFT (FID)	*107*		*60 - 120*

Lab Sample ID: 11I0135-DUP1 — **Client Sample ID: NK-11-WP-02**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U000760 — **Prep Batch: 11I0135_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	179			174		ug/l				2.79	20
Benzene	5.99			5.97		ug/l				0.384	20
Toluene	8.41			8.64		ug/l				2.64	20
Ethylbenzene	14.7			14.4		ug/l				2.15	20
Xylenes (total)	48.1			47.3		ug/l				1.60	20

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*88.1*		*50 - 150*
4-BFB (PID)	*91.8*		*50 - 150*
a,a,a-TFT (FID)	*96.1*		*50 - 150*
a,a,a-TFT (PID)	*101*		*50 - 150*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0149-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg wet		09/28/11 16:26	09/29/11 02:57	33.3
Benzene	ND		0.0200		mg/kg wet		09/28/11 16:26	09/29/11 02:57	33.3
Toluene	ND		0.0400		mg/kg wet		09/28/11 16:26	09/29/11 02:57	33.3
Ethylbenzene	ND		0.0400		mg/kg wet		09/28/11 16:26	09/29/11 02:57	33.3
Xylenes (total)	ND		0.120		mg/kg wet		09/28/11 16:26	09/29/11 02:57	33.3

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*82.9*		*50 - 150*	*09/28/11 16:26*	*09/29/11 02:57*	*33.3*
a,a,a-TFT (FID)	*114*		*50 - 150*	*09/28/11 16:26*	*09/29/11 02:57*	*33.3*
4-BFB (PID)	*81.7*		*50 - 150*	*09/28/11 16:26*	*09/29/11 02:57*	*33.3*
a,a,a-TFT (PID)	*113*		*50 - 150*	*09/28/11 16:26*	*09/29/11 02:57*	*33.3*

Lab Sample ID: 11I0149-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	0.800	0.762		mg/kg wet		95.2	70 - 130
Toluene	0.800	0.732		mg/kg wet		91.5	70 - 130
Ethylbenzene	0.800	0.726		mg/kg wet		90.7	70 - 130
Xylenes (total)	2.40	2.19		mg/kg wet		91.1	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*111*		*60 - 120*
a,a,a-TFT (PID)	*111*		*60 - 120*

Lab Sample ID: 11I0149-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Gasoline Range Organics	20.0	16.9		mg/kg wet		84.6	60 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*107*		*60 - 120*
a,a,a-TFT (FID)	*116*		*60 - 120*

Lab Sample ID: 11I0149-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	0.800	0.769		mg/kg wet		96.1	70 - 130	0.931	20
Toluene	0.800	0.742		mg/kg wet		92.8	70 - 130	1.41	20
Ethylbenzene	0.800	0.733		mg/kg wet		91.6	70 - 130	0.950	20
Xylenes (total)	2.40	2.19		mg/kg wet		91.2	70 - 130	0.054	20

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Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0149-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*107*		*60 - 120*
a,a,a-TFT (PID)	*108*		*60 - 120*

Lab Sample ID: 11I0149-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			20.0	18.2		mg/kg wet		90.9	60 - 120	7.18	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*104*		*60 - 120*
a,a,a-TFT (FID)	*111*		*60 - 120*

Lab Sample ID: 11I0149-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene	ND		0.398	0.458		mg/kg dry	☼	115	60 - 140		
Toluene	ND		0.398	0.457		mg/kg dry	☼	115	60 - 140		
Ethylbenzene	ND		0.398	0.436		mg/kg dry	☼	110	60 - 140		
Xylenes (total)	0.0177		1.19	1.30		mg/kg dry	☼	107	60 - 140		

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (PID)	*83.2*		*50 - 150*
a,a,a-TFT (PID)	*103*		*50 - 150*

Lab Sample ID: 11I0149-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	ND		0.398	0.379		mg/kg dry	☼	95.4	60 - 140	18.9	30
Toluene	ND		0.398	0.369		mg/kg dry	☼	92.8	60 - 140	21.2	30
Ethylbenzene	ND		0.398	0.363		mg/kg dry	☼	91.3	60 - 140	18.3	30
Xylenes (total)	0.0177		1.19	1.07		mg/kg dry	☼	88.5	60 - 140	18.9	30

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (PID)	*89.7*		*50 - 150*
a,a,a-TFT (PID)	*104*		*50 - 150*

Lab Sample ID: 11I0149-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	0.333			0.305		mg/kg dry	☼			8.92	20
Benzene	ND			ND		mg/kg dry	☼				20

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0149-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000770 — **Prep Batch: 11I0149_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Toluene	ND			ND		mg/kg dry	☼				20
Ethylbenzene	ND			ND		mg/kg dry	☼				20
Xylenes (total)	0.0177			0.0160		mg/kg dry	☼			10.2	20

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*86.6*		*50 - 150*
a,a,a-TFT (FID)	*102*		*50 - 150*
4-BFB (PID)	*84.3*		*50 - 150*
a,a,a-TFT (PID)	*101*		*50 - 150*

Lab Sample ID: 11I0156-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Benzene	ND		0.0200		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Toluene	ND		0.0400		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Ethylbenzene	ND	C4	0.0400		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Xylenes (total)	ND	C4	0.120		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*73.8*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
a,a,a-TFT (FID)	*105*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
4-BFB (PID)	*78.3*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
a,a,a-TFT (PID)	*110*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*

Lab Sample ID: 11I0156-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			0.800	0.500	L2	mg/kg wet		62.5	70 - 130		
Toluene			0.800	0.471	L2	mg/kg wet		58.9	70 - 130		
Ethylbenzene			0.800	0.460	L2 C4	mg/kg wet		57.5	70 - 130		
Xylenes (total)			2.40	1.42	L2 C4	mg/kg wet		59.1	70 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*70.9*		*60 - 120*
a,a,a-TFT (PID)	*75.4*		*60 - 120*

Lab Sample ID: 11I0156-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			20.0	16.6		mg/kg wet		83.2	60 - 120		

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0156-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*86.3*		*60 - 120*
a,a,a-TFT (FID)	*112*		*60 - 120*

Lab Sample ID: 11I0156-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			0.800	0.691	R2	mg/kg wet		86.4	70 - 130	32.0	20
Toluene			0.800	0.667	R2	mg/kg wet		83.3	70 - 130	34.4	20
Ethylbenzene			0.800	0.616	R2 C4	mg/kg wet		77.0	70 - 130	29.1	20
Xylenes (total)			2.40	1.82	R2 C4	mg/kg wet		76.0	70 - 130	25.1	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*94.2*		*60 - 120*
a,a,a-TFT (PID)	*107*		*60 - 120*

Lab Sample ID: 11I0156-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			20.0	17.5		mg/kg wet		87.4	60 - 120	4.87	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*88.6*		*60 - 120*
a,a,a-TFT (FID)	*117*		*60 - 120*

Lab Sample ID: 11I0156-MS1 — **Client Sample ID: NK-11-SS-14**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene	ND	L2	0.392	0.723	M7	mg/kg dry	☼	184	60 - 140		
Toluene	ND	L2	0.392	0.697	M7	mg/kg dry	☼	178	60 - 140		
Ethylbenzene	ND	C4 L2	0.392	0.644	C4 M7	mg/kg dry	☼	164	60 - 140		
Xylenes (total)	0.0514	C4 L2	1.18	1.90	C4 M7	mg/kg dry	☼	157	60 - 140		

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (PID)	*81.6*		*50 - 150*
a,a,a-TFT (PID)	*77.3*		*50 - 150*

Lab Sample ID: 11I0156-MSD1 — **Client Sample ID: NK-11-SS-14**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	ND	L2	0.392	0.712	M7	mg/kg dry	☼	182	60 - 140	1.52	30
Toluene	ND	L2	0.392	0.683	M7	mg/kg dry	☼	174	60 - 140	2.08	30

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0156-MSD1 — **Client Sample ID: NK-11-SS-14**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Ethylbenzene	ND	C4 L2	0.392	0.633	C4 M7	mg/kg dry	☼	161	60 - 140	1.83	30
Xylenes (total)	0.0514	C4 L2	1.18	1.86	C4 M7	mg/kg dry	☼	153	60 - 140	2.36	30

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (PID)	*73.5*		*50 - 150*
a,a,a-TFT (PID)	*77.2*		*50 - 150*

Lab Sample ID: 11I0156-DUP1 — **Client Sample ID: NK-11-SS-14**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gasoline Range Organics	0.676		0.518	R4	mg/kg dry	☼	26.5	20
Benzene	ND	L2	ND		mg/kg dry	☼		20
Toluene	ND	L2	ND		mg/kg dry	☼		20
Ethylbenzene	ND	C4 L2	ND	C4	mg/kg dry	☼		20
Xylenes (total)	0.0514	C4 L2	0.0326	C4	mg/kg dry	☼	44.7	20

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*94.6*		*50 - 150*
a,a,a-TFT (FID)	*82.2*		*50 - 150*
4-BFB (PID)	*94.9*		*50 - 150*
a,a,a-TFT (PID)	*86.8*		*50 - 150*

Lab Sample ID: 11I0166-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg wet		10/01/11 10:02	10/01/11 10:07	33.3
Benzene	ND		0.0200		mg/kg wet		10/01/11 10:02	10/01/11 10:07	33.3
Toluene	ND		0.0400		mg/kg wet		10/01/11 10:02	10/01/11 10:07	33.3
Ethylbenzene	ND		0.0400		mg/kg wet		10/01/11 10:02	10/01/11 10:07	33.3
Xylenes (total)	ND		0.120		mg/kg wet		10/01/11 10:02	10/01/11 10:07	33.3

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*97.5*		*50 - 150*	*10/01/11 10:02*	*10/01/11 10:07*	*33.3*
a,a,a-TFT (FID)	*117*		*50 - 150*	*10/01/11 10:02*	*10/01/11 10:07*	*33.3*
4-BFB (PID)	*99.5*		*50 - 150*	*10/01/11 10:02*	*10/01/11 10:07*	*33.3*
a,a,a-TFT (PID)	*116*		*50 - 150*	*10/01/11 10:02*	*10/01/11 10:07*	*33.3*

Lab Sample ID: 11I0166-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	0.800	0.711		mg/kg wet		88.8	70 - 130
Toluene	0.800	0.711		mg/kg wet		88.9	70 - 130
Ethylbenzene	0.800	0.705		mg/kg wet		88.1	70 - 130

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0166-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Xylenes (total)			2.40	2.10		mg/kg wet		87.4	70 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*93.9*		*60 - 120*
a,a,a-TFT (PID)	*112*		*60 - 120*

Lab Sample ID: 11I0166-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			20.0	13.4		mg/kg wet		66.9	60 - 120		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*104*		*60 - 120*
a,a,a-TFT (FID)	*94.2*		*60 - 120*

Lab Sample ID: 11I0166-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			0.800	0.646		mg/kg wet		80.7	70 - 130	9.58	20
Toluene			0.800	0.652		mg/kg wet		81.5	70 - 130	8.72	20
Ethylbenzene			0.800	0.655		mg/kg wet		81.8	70 - 130	7.38	20
Xylenes (total)			2.40	2.01		mg/kg wet		83.9	70 - 130	4.01	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*94.5*		*60 - 120*
a,a,a-TFT (PID)	*97.1*		*60 - 120*

Lab Sample ID: 11I0166-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			20.0	14.2		mg/kg wet		70.9	60 - 120	5.77	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*99.9*		*60 - 120*
a,a,a-TFT (FID)	*103*		*60 - 120*

Lab Sample ID: 11I0166-MS1 — **Client Sample ID: NK-11-SS-11**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene	0.268	RL7 BQC1	7.63	10.4		mg/kg dry	☼	133	60 - 140		

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0166-MS1 — **Client Sample ID: NK-11-SS-11**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Toluene	1.06	RL7 BQC1	7.63	11.8	M7	mg/kg dry	☼	141	60 - 140
Ethylbenzene	12.3	RL7	7.63	23.9	M7	mg/kg dry	☼	152	60 - 140
Xylenes (total)	46.5	RL7	22.9	91.5	M7	mg/kg dry	☼	196	60 - 140

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (FID)	*192*	*ZX*	*50 - 150*
a,a,a-TFT (FID)	*209*	*ZX*	*50 - 150*
4-BFB (PID)	*126*		*50 - 150*
a,a,a-TFT (PID)	*102*		*50 - 150*

Lab Sample ID: 11I0166-MSD1 — **Client Sample ID: NK-11-SS-11**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	0.268	RL7 BQC1	7.63	10.0		mg/kg dry	☼	128	60 - 140	3.85	30
Toluene	1.06	RL7 BQC1	7.63	11.0		mg/kg dry	☼	130	60 - 140	7.60	30
Ethylbenzene	12.3	RL7	7.63	22.7		mg/kg dry	☼	136	60 - 140	5.51	30
Xylenes (total)	46.5	RL7	22.9	81.0	M7	mg/kg dry	☼	150	60 - 140	12.2	30

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (FID)	*143*		*50 - 150*
a,a,a-TFT (FID)	*148*		*50 - 150*
4-BFB (PID)	*107*		*50 - 150*
a,a,a-TFT (PID)	*84.3*		*50 - 150*

Lab Sample ID: 11I0166-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000785 — **Prep Batch: 11I0166_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gasoline Range Organics	135		138		mg/kg dry	☼	1.84	20
Benzene	ND		ND		mg/kg dry	☼		20
Toluene	0.920		0.945		mg/kg dry	☼	2.68	20
Ethylbenzene	0.825		0.832		mg/kg dry	☼	0.773	20
Xylenes (total)	24.8		24.9		mg/kg dry	☼	0.625	20

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*423*	*ZX*	*50 - 150*
a,a,a-TFT (FID)	*163*	*ZX*	*50 - 150*
4-BFB (PID)	*176*	*ZX*	*50 - 150*
a,a,a-TFT (PID)	*127*		*50 - 150*

QC Association Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

GCMS Volatiles

Analysis Batch: 11I0178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0178-BLK1	Method Blank	Total	Water	EPA 8260B	11I0178_P
11I0178-BS1	Lab Control Sample	Total	Water	EPA 8260B	11I0178_P
11I0178-MS1	Matrix Spike	Total	Water	EPA 8260B	11I0178_P
11I0178-MSD1	Matrix Spike Duplicate	Total	Water	EPA 8260B	11I0178_P
AUI0080-01	NK-11-DW-01	Total	Water	EPA 8260B	11I0178_P
AUI0080-02	NK-11-DW-02	Total	Water	EPA 8260B	11I0178_P
AUI0080-03	NK-11-DW-03	Total	Water	EPA 8260B	11I0178_P
AUI0080-04	NK-11-WP-02	Total	Water	EPA 8260B	11I0178_P
AUI0080-05	NK-11-WP-03	Total	Water	EPA 8260B	11I0178_P
AUI0080-06	NK-11-TB-01	Total	Water	EPA 8260B	11I0178_P

Prep Batch: 11I0178_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0178-BLK1	Method Blank	Total	Water	GC/MS Volatiles	
11I0178-BS1	Lab Control Sample	Total	Water	GC/MS Volatiles	
11I0178-MS1	Matrix Spike	Total	Water	GC/MS Volatiles	
11I0178-MSD1	Matrix Spike Duplicate	Total	Water	GC/MS Volatiles	
AUI0080-01	NK-11-DW-01	Total	Water	GC/MS Volatiles	
AUI0080-02	NK-11-DW-02	Total	Water	GC/MS Volatiles	
AUI0080-03	NK-11-DW-03	Total	Water	GC/MS Volatiles	
AUI0080-04	NK-11-WP-02	Total	Water	GC/MS Volatiles	
AUI0080-05	NK-11-WP-03	Total	Water	GC/MS Volatiles	
AUI0080-06	NK-11-TB-01	Total	Water	GC/MS Volatiles	

Semivolatiles

Analysis Batch: 11I0214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0214-BLK1	Method Blank	Total	Soil	EPA 8270 mod.	11I0214_P
11I0214-BS1	Lab Control Sample	Total	Soil	EPA 8270 mod.	11I0214_P
11I0214-MS1	Matrix Spike	Total	Soil	EPA 8270 mod.	11I0214_P
11I0214-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 8270 mod.	11I0214_P
AUI0080-19	NK-11-SS-13	Total	Soil	EPA 8270 mod.	11I0214_P
AUI0080-26	NK-11-SS-20	Total	Soil	EPA 8270 mod.	11I0214_P

Analysis Batch: 11I0244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0244-BLK1	Method Blank	Total	Water	EPA 8270 mod.	11I0244_P
11I0244-BS1	Lab Control Sample	Total	Water	EPA 8270 mod.	11I0244_P
11I0244-BSD1	Lab Control Sample Dup	Total	Water	EPA 8270 mod.	11I0244_P
AUI0080-04	NK-11-WP-02	Total	Water	EPA 8270 mod.	11I0244_P
AUI0080-05	NK-11-WP-03	Total	Water	EPA 8270 mod.	11I0244_P

Prep Batch: 11I0214_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0214-BLK1	Method Blank	Total	Soil	EPA 3550B	
11I0214-BS1	Lab Control Sample	Total	Soil	EPA 3550B	
11I0214-MS1	Matrix Spike	Total	Soil	EPA 3550B	
11I0214-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550B	
AUI0080-19	NK-11-SS-13	Total	Soil	EPA 3550B	
AUI0080-26	NK-11-SS-20	Total	Soil	EPA 3550B	

Semivolatiles (Continued)

Prep Batch: 11I0244_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0244-BLK1	Method Blank	Total	Water	EPA 3510/600 Series	
11I0244-BS1	Lab Control Sample	Total	Water	EPA 3510/600 Series	
11I0244-BSD1	Lab Control Sample Dup	Total	Water	EPA 3510/600 Series	
AUI0080-04	NK-11-WP-02	Total	Water	EPA 3510/600 Series	
AUI0080-05	NK-11-WP-03	Total	Water	EPA 3510/600 Series	

Fuels

Analysis Batch: 11I0108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0108-DUP1	NK-11-SS-02	Total	Soil	TA-SOP	11I0108_P
AUI0080-08	NK-11-SS-02	Total	Soil	TA-SOP	11I0108_P
AUI0080-09	NK-11-SS-03	Total	Soil	TA-SOP	11I0108_P
AUI0080-10	NK-11-SS-04	Total	Soil	TA-SOP	11I0108_P
AUI0080-11	NK-11-SS-05	Total	Soil	TA-SOP	11I0108_P
AUI0080-12	NK-11-SS-06	Total	Soil	TA-SOP	11I0108_P
AUI0080-13	NK-11-SS-07	Total	Soil	TA-SOP	11I0108_P
AUI0080-14	NK-11-SS-08	Total	Soil	TA-SOP	11I0108_P
AUI0080-15	NK-11-SS-09	Total	Soil	TA-SOP	11I0108_P
AUI0080-16	NK-11-SS-10	Total	Soil	TA-SOP	11I0108_P
AUI0080-17	NK-11-SS-11	Total	Soil	TA-SOP	11I0108_P
AUI0080-18	NK-11-SS-12	Total	Soil	TA-SOP	11I0108_P
AUI0080-19	NK-11-SS-13	Total	Soil	TA-SOP	11I0108_P
AUI0080-20	NK-11-SS-14	Total	Soil	TA-SOP	11I0108_P
AUI0080-21	NK-11-SS-15	Total	Soil	TA-SOP	11I0108_P
AUI0080-22	NK-11-SS-16	Total	Soil	TA-SOP	11I0108_P
AUI0080-23	NK-11-SS-17	Total	Soil	TA-SOP	11I0108_P
AUI0080-24	NK-11-SS-18	Total	Soil	TA-SOP	11I0108_P
AUI0080-25	NK-11-SS-19	Total	Soil	TA-SOP	11I0108_P
AUI0080-26	NK-11-SS-20	Total	Soil	TA-SOP	11I0108_P
AUI0080-27	NK-11-SS-21	Total	Soil	TA-SOP	11I0108_P

Analysis Batch: 11I0109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0109-DUP1	NK-11-SS-01	Total	Soil	TA-SOP	11I0109_P
AUI0080-07	NK-11-SS-01	Total	Soil	TA-SOP	11I0109_P
AUI0080-28	NK-11-TB-02	Total	Soil	TA-SOP	11I0109_P

Analysis Batch: U000745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0107-BLK1	Method Blank	Total	Soil	AK102/103	11I0107_P
11I0107-BS1	Lab Control Sample	Total	Soil	AK102/103	11I0107_P
11I0107-BSD1	Lab Control Sample Dup	Total	Soil	AK102/103	11I0107_P
AUI0080-27	NK-11-SS-21	Total	Soil	AK102/103	11I0107_P

Analysis Batch: U000746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0107-DUP1	NK-11-SS-20	Total	Soil	AK102/103	11I0107_P

Fuels (Continued)

Analysis Batch: U000746 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0107-MS1	NK-11-SS-20	Total	Soil	AK102/103	11I0107_P
11I0107-MSD1	NK-11-SS-20	Total	Soil	AK102/103	11I0107_P
AUI0080-26	NK-11-SS-20	Total	Soil	AK102/103	11I0107_P

Analysis Batch: U000763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0136-BLK1	Method Blank	Total	Water	AK102/103	11I0136_P
11I0136-BS1	Lab Control Sample	Total	Water	AK102/103	11I0136_P
11I0136-BSD1	Lab Control Sample Dup	Total	Water	AK102/103	11I0136_P

Analysis Batch: U000764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0136-DUP1	NK-11-WP-02	Total	Water	AK102/103	11I0136_P
AUI0080-04	NK-11-WP-02	Total	Water	AK102/103	11I0136_P
AUI0080-05	NK-11-WP-03	Total	Water	AK102/103	11I0136_P

Analysis Batch: U000768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0137-BLK1	Method Blank	Total	Soil	AK102/103	11I0137_P
11I0137-BS1	Lab Control Sample	Total	Soil	AK102/103	11I0137_P
11I0137-BSD1	Lab Control Sample Dup	Total	Soil	AK102/103	11I0137_P
AUI0080-09 - RE1	NK-11-SS-03	Total	Soil	AK102/103	11I0137_P

Analysis Batch: U000769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0137-DUP1	NK-11-SS-01	Total	Soil	AK102/103	11I0137_P
11I0137-MS1	NK-11-SS-01	Total	Soil	AK102/103	11I0137_P
11I0137-MSD1	NK-11-SS-01	Total	Soil	AK102/103	11I0137_P
AUI0080-07 - RE1	NK-11-SS-01	Total	Soil	AK102/103	11I0137_P
AUI0080-10 - RE1	NK-11-SS-04	Total	Soil	AK102/103	11I0137_P
AUI0080-11 - RE1	NK-11-SS-05	Total	Soil	AK102/103	11I0137_P

Analysis Batch: U000772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0080-12 - RE1	NK-11-SS-06	Total	Soil	AK102/103	11I0137_P
AUI0080-14 - RE1	NK-11-SS-08	Total	Soil	AK102/103	11I0137_P
AUI0080-16 - RE1	NK-11-SS-10	Total	Soil	AK102/103	11I0137_P
AUI0080-18 - RE1	NK-11-SS-12	Total	Soil	AK102/103	11I0137_P
AUI0080-20 - RE1	NK-11-SS-14	Total	Soil	AK102/103	11I0137_P
AUI0080-22 - RE1	NK-11-SS-16	Total	Soil	AK102/103	11I0137_P
AUI0080-24 - RE1	NK-11-SS-18	Total	Soil	AK102/103	11I0137_P

Analysis Batch: U000773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0080-13 - RE1	NK-11-SS-07	Total	Soil	AK102/103	11I0137_P
AUI0080-15 - RE1	NK-11-SS-09	Total	Soil	AK102/103	11I0137_P
AUI0080-17 - RE1	NK-11-SS-11	Total	Soil	AK102/103	11I0137_P
AUI0080-19 - RE1	NK-11-SS-13	Total	Soil	AK102/103	11I0137_P
AUI0080-21 - RE1	NK-11-SS-15	Total	Soil	AK102/103	11I0137_P
AUI0080-23 - RE1	NK-11-SS-17	Total	Soil	AK102/103	11I0137_P
AUI0080-25 - RE1	NK-11-SS-19	Total	Soil	AK102/103	11I0137_P

Fuels (Continued)

Analysis Batch: U000788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0080-08 - RE1	NK-11-SS-02	Total	Soil	AK102/103	11I0137_P

Prep Batch: 11I0107_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0107-BLK1	Method Blank	Total	Soil	EPA 3545	
11I0107-BS1	Lab Control Sample	Total	Soil	EPA 3545	
11I0107-BSD1	Lab Control Sample Dup	Total	Soil	EPA 3545	
11I0107-DUP1	NK-11-SS-20	Total	Soil	EPA 3545	
11I0107-MS1	NK-11-SS-20	Total	Soil	EPA 3545	
11I0107-MSD1	NK-11-SS-20	Total	Soil	EPA 3545	
AUI0080-26	NK-11-SS-20	Total	Soil	EPA 3545	
AUI0080-27	NK-11-SS-21	Total	Soil	EPA 3545	

Prep Batch: 11I0108_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0108-DUP1	NK-11-SS-02	Total	Soil	*** DEFAULT PREP ***	
AUI0080-08	NK-11-SS-02	Total	Soil	*** DEFAULT PREP ***	
AUI0080-09	NK-11-SS-03	Total	Soil	*** DEFAULT PREP ***	
AUI0080-10	NK-11-SS-04	Total	Soil	*** DEFAULT PREP ***	
AUI0080-11	NK-11-SS-05	Total	Soil	*** DEFAULT PREP ***	
AUI0080-12	NK-11-SS-06	Total	Soil	*** DEFAULT PREP ***	
AUI0080-13	NK-11-SS-07	Total	Soil	*** DEFAULT PREP ***	
AUI0080-14	NK-11-SS-08	Total	Soil	*** DEFAULT PREP ***	
AUI0080-15	NK-11-SS-09	Total	Soil	*** DEFAULT PREP ***	
AUI0080-16	NK-11-SS-10	Total	Soil	*** DEFAULT PREP ***	
AUI0080-17	NK-11-SS-11	Total	Soil	*** DEFAULT PREP ***	
AUI0080-18	NK-11-SS-12	Total	Soil	*** DEFAULT PREP ***	
AUI0080-19	NK-11-SS-13	Total	Soil	*** DEFAULT PREP ***	
AUI0080-20	NK-11-SS-14	Total	Soil	*** DEFAULT PREP ***	
AUI0080-21	NK-11-SS-15	Total	Soil	*** DEFAULT PREP ***	
AUI0080-22	NK-11-SS-16	Total	Soil	*** DEFAULT PREP ***	
AUI0080-23	NK-11-SS-17	Total	Soil	*** DEFAULT PREP ***	
AUI0080-24	NK-11-SS-18	Total	Soil	*** DEFAULT PREP ***	
AUI0080-25	NK-11-SS-19	Total	Soil	*** DEFAULT PREP ***	
AUI0080-26	NK-11-SS-20	Total	Soil	*** DEFAULT PREP ***	
AUI0080-27	NK-11-SS-21	Total	Soil	*** DEFAULT PREP ***	

Fuels (Continued)

Prep Batch: 11I0109_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0109-DUP1	NK-11-SS-01	Total	Soil	*** DEFAULT PREP ***	
AUI0080-07	NK-11-SS-01	Total	Soil	*** DEFAULT PREP ***	
AUI0080-28	NK-11-TB-02	Total	Soil	*** DEFAULT PREP ***	

Prep Batch: 11I0136_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0136-BLK1	Method Blank	Total	Water	EPA 3510	
11I0136-BS1	Lab Control Sample	Total	Water	EPA 3510	
11I0136-BSD1	Lab Control Sample Dup	Total	Water	EPA 3510	
11I0136-DUP1	NK-11-WP-02	Total	Water	EPA 3510	
AUI0080-04	NK-11-WP-02	Total	Water	EPA 3510	
AUI0080-05	NK-11-WP-03	Total	Water	EPA 3510	

Prep Batch: 11I0137_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0137-BLK1	Method Blank	Total	Soil	EPA 3545	
11I0137-BS1	Lab Control Sample	Total	Soil	EPA 3545	
11I0137-BSD1	Lab Control Sample Dup	Total	Soil	EPA 3545	
11I0137-DUP1	NK-11-SS-01	Total	Soil	EPA 3545	
11I0137-MS1	NK-11-SS-01	Total	Soil	EPA 3545	
11I0137-MSD1	NK-11-SS-01	Total	Soil	EPA 3545	
AUI0080-07 - RE1	NK-11-SS-01	Total	Soil	EPA 3545	
AUI0080-08 - RE1	NK-11-SS-02	Total	Soil	EPA 3545	
AUI0080-09 - RE1	NK-11-SS-03	Total	Soil	EPA 3545	
AUI0080-10 - RE1	NK-11-SS-04	Total	Soil	EPA 3545	
AUI0080-11 - RE1	NK-11-SS-05	Total	Soil	EPA 3545	
AUI0080-12 - RE1	NK-11-SS-06	Total	Soil	EPA 3545	
AUI0080-13 - RE1	NK-11-SS-07	Total	Soil	EPA 3545	
AUI0080-14 - RE1	NK-11-SS-08	Total	Soil	EPA 3545	
AUI0080-15 - RE1	NK-11-SS-09	Total	Soil	EPA 3545	
AUI0080-16 - RE1	NK-11-SS-10	Total	Soil	EPA 3545	
AUI0080-17 - RE1	NK-11-SS-11	Total	Soil	EPA 3545	
AUI0080-18 - RE1	NK-11-SS-12	Total	Soil	EPA 3545	
AUI0080-19 - RE1	NK-11-SS-13	Total	Soil	EPA 3545	
AUI0080-20 - RE1	NK-11-SS-14	Total	Soil	EPA 3545	
AUI0080-21 - RE1	NK-11-SS-15	Total	Soil	EPA 3545	
AUI0080-22 - RE1	NK-11-SS-16	Total	Soil	EPA 3545	
AUI0080-23 - RE1	NK-11-SS-17	Total	Soil	EPA 3545	
AUI0080-24 - RE1	NK-11-SS-18	Total	Soil	EPA 3545	
AUI0080-25 - RE1	NK-11-SS-19	Total	Soil	EPA 3545	

GC Volatiles

Analysis Batch: U000738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0101-BLK1	Method Blank	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-BS1	Lab Control Sample	Total	Water	AK101/EPA 8021B	11I0101_P

GC Volatiles (Continued)

Analysis Batch: U000738 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0101-BS2	Lab Control Sample	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-BSD1	Lab Control Sample Dup	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-BSD2	Lab Control Sample Dup	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-DUP1	Duplicate	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-MS1	Matrix Spike	Total	Water	AK101/EPA 8021B	11I0101_P
11I0101-MSD1	Matrix Spike Duplicate	Total	Water	AK101/EPA 8021B	11I0101_P
AUI0080-06	NK-11-TB-01	Total	Water	AK101/EPA 8021B	11I0101_P

Analysis Batch: U000760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0135-BLK1	Method Blank	Total	Water	AK101/EPA 8021B	11I0135_P
11I0135-BS1	Lab Control Sample	Total	Water	AK101/EPA 8021B	11I0135_P
11I0135-BS2	Lab Control Sample	Total	Water	AK101/EPA 8021B	11I0135_P
11I0135-BSD1	Lab Control Sample Dup	Total	Water	AK101/EPA 8021B	11I0135_P
11I0135-BSD2	Lab Control Sample Dup	Total	Water	AK101/EPA 8021B	11I0135_P
11I0135-DUP1	NK-11-WP-02	Total	Water	AK101/EPA 8021B	11I0135_P
AUI0080-04	NK-11-WP-02	Total	Water	AK101/EPA 8021B	11I0135_P
AUI0080-05	NK-11-WP-03	Total	Water	AK101/EPA 8021B	11I0135_P

Analysis Batch: U000770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0149-BLK1	Method Blank	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-BS1	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-BS2	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-BSD1	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-BSD2	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-DUP1	Duplicate	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-MS1	Matrix Spike	Total	Soil	AK101/EPA 8021B	11I0149_P
11I0149-MSD1	Matrix Spike Duplicate	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-07	NK-11-SS-01	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-08	NK-11-SS-02	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-09	NK-11-SS-03	Total	Soil	AK101/EPA 8021B	11I0149_P

GC Volatiles (Continued)

Analysis Batch: U000770 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0080-10	NK-11-SS-04	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-11	NK-11-SS-05	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-12	NK-11-SS-06	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-13	NK-11-SS-07	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-14	NK-11-SS-08	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-15	NK-11-SS-09	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-16	NK-11-SS-10	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-17	NK-11-SS-11	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-18	NK-11-SS-12	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-28	NK-11-TB-02	Total	Soil	AK101/EPA 8021B	11I0149_P

Analysis Batch: U000785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0166-BLK1	Method Blank	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-BS1	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-BS2	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-BSD1	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-BSD2	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-DUP1	Duplicate	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-MS1	NK-11-SS-11	Total	Soil	AK101/EPA 8021B	11I0166_P
11I0166-MSD1	NK-11-SS-11	Total	Soil	AK101/EPA 8021B	11I0166_P
AUI0080-17 - RE1	NK-11-SS-11	Total	Soil	AK101/EPA 8021B	11I0166_P
AUI0080-18 - RE1	NK-11-SS-12	Total	Soil	AK101/EPA 8021B	11I0166_P

Analysis Batch: U000797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-BLK1	Method Blank	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BS1	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BS2	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BSD1	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BSD2	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-DUP1	NK-11-SS-14	Total	Soil	AK101/EPA 8021B	11I0156_P

GC Volatiles (Continued)

Analysis Batch: U000797 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-MS1	NK-11-SS-14	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-MSD1	NK-11-SS-14	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-19	NK-11-SS-13	Total	Soil	AK101/EPA 8021B	11I0149_P
AUI0080-20	NK-11-SS-14	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-21	NK-11-SS-15	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-22	NK-11-SS-16	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-23	NK-11-SS-17	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-24	NK-11-SS-18	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-25	NK-11-SS-19	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-26	NK-11-SS-20	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0080-27	NK-11-SS-21	Total	Soil	AK101/EPA 8021B	11I0156_P

Prep Batch: 11I0101_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0101-BLK1	Method Blank	Total	Water	EPA 5030B	
11I0101-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11I0101-BS2	Lab Control Sample	Total	Water	EPA 5030B	
11I0101-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
11I0101-BSD2	Lab Control Sample Dup	Total	Water	EPA 5030B	
11I0101-DUP1	Duplicate	Total	Water	EPA 5030B	
11I0101-MS1	Matrix Spike	Total	Water	EPA 5030B	
11I0101-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
AUI0080-06	NK-11-TB-01	Total	Water	EPA 5030B	

Prep Batch: 11I0135_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0135-BLK1	Method Blank	Total	Water	EPA 5030B	
11I0135-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11I0135-BS2	Lab Control Sample	Total	Water	EPA 5030B	
11I0135-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
11I0135-BSD2	Lab Control Sample Dup	Total	Water	EPA 5030B	
11I0135-DUP1	NK-11-WP-02	Total	Water	EPA 5030B	
AUI0080-04	NK-11-WP-02	Total	Water	EPA 5030B	
AUI0080-05	NK-11-WP-03	Total	Water	EPA 5030B	

Prep Batch: 11I0149_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0149-BLK1	Method Blank	Total	Soil	AK101 Field Prep	
11I0149-BS1	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0149-BS2	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0149-BSD1	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	

GC Volatiles (Continued)

Prep Batch: 11I0149_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0149-BSD2	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0149-DUP1	Duplicate	Total	Soil	AK101 Field Prep	
11I0149-MS1	Matrix Spike	Total	Soil	AK101 Field Prep	
11I0149-MSD1	Matrix Spike Duplicate	Total	Soil	AK101 Field Prep	
AUI0080-07	NK-11-SS-01	Total	Soil	AK101 Field Prep	
AUI0080-08	NK-11-SS-02	Total	Soil	AK101 Field Prep	
AUI0080-09	NK-11-SS-03	Total	Soil	AK101 Field Prep	
AUI0080-10	NK-11-SS-04	Total	Soil	AK101 Field Prep	
AUI0080-11	NK-11-SS-05	Total	Soil	AK101 Field Prep	
AUI0080-12	NK-11-SS-06	Total	Soil	AK101 Field Prep	
AUI0080-13	NK-11-SS-07	Total	Soil	AK101 Field Prep	
AUI0080-14	NK-11-SS-08	Total	Soil	AK101 Field Prep	
AUI0080-15	NK-11-SS-09	Total	Soil	AK101 Field Prep	
AUI0080-16	NK-11-SS-10	Total	Soil	AK101 Field Prep	
AUI0080-17	NK-11-SS-11	Total	Soil	AK101 Field Prep	
AUI0080-18	NK-11-SS-12	Total	Soil	AK101 Field Prep	
AUI0080-19	NK-11-SS-13	Total	Soil	AK101 Field Prep	
AUI0080-28	NK-11-TB-02	Total	Soil	AK101 Field Prep	

Prep Batch: 11I0156_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-BLK1	Method Blank	Total	Soil	AK101 Field Prep	
11I0156-BS1	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0156-BS2	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0156-BSD1	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0156-BSD2	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0156-DUP1	NK-11-SS-14	Total	Soil	AK101 Field Prep	
11I0156-MS1	NK-11-SS-14	Total	Soil	AK101 Field Prep	
11I0156-MSD1	NK-11-SS-14	Total	Soil	AK101 Field Prep	
AUI0080-20	NK-11-SS-14	Total	Soil	AK101 Field Prep	
AUI0080-21	NK-11-SS-15	Total	Soil	AK101 Field Prep	

GC Volatiles (Continued)

Prep Batch: 11I0156_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0080-22	NK-11-SS-16	Total	Soil	AK101 Field Prep	
AUI0080-23	NK-11-SS-17	Total	Soil	AK101 Field Prep	
AUI0080-24	NK-11-SS-18	Total	Soil	AK101 Field Prep	
AUI0080-25	NK-11-SS-19	Total	Soil	AK101 Field Prep	
AUI0080-26	NK-11-SS-20	Total	Soil	AK101 Field Prep	
AUI0080-27	NK-11-SS-21	Total	Soil	AK101 Field Prep	

Prep Batch: 11I0166_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0166-BLK1	Method Blank	Total	Soil	AK101 Field Prep	
11I0166-BS1	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0166-BS2	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0166-BSD1	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0166-BSD2	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0166-DUP1	Duplicate	Total	Soil	AK101 Field Prep	
11I0166-MS1	NK-11-SS-11	Total	Soil	AK101 Field Prep	
11I0166-MSD1	NK-11-SS-11	Total	Soil	AK101 Field Prep	
AUI0080-17 - RE1	NK-11-SS-11	Total	Soil	AK101 Field Prep	
AUI0080-18 - RE1	NK-11-SS-12	Total	Soil	AK101 Field Prep	

Wet Chem

Analysis Batch: 11I0232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0232-DUP1	Duplicate	Total	Soil	TA SOP	11I0232_P
AUI0080-19	NK-11-SS-13	Total	Soil	TA SOP	11I0232_P
AUI0080-26	NK-11-SS-20	Total	Soil	TA SOP	11I0232_P

Prep Batch: 11I0232_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0232-DUP1	Duplicate	Total	Soil	Wet Chem	
AUI0080-19	NK-11-SS-13	Total	Soil	Wet Chem	
AUI0080-26	NK-11-SS-20	Total	Soil	Wet Chem	

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-DW-01 — Lab Sample ID: AUI0080-01

Date Collected: 09/13/11 16:50 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		1.00	11I0178	09/22/11 18:24	MS	TAL SPK

Client Sample ID: NK-11-DW-02 — Lab Sample ID: AUI0080-02

Date Collected: 09/13/11 17:00 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		1.00	11I0178	09/22/11 18:51	MS	TAL SPK

Client Sample ID: NK-11-DW-03 — Lab Sample ID: AUI0080-03

Date Collected: 09/14/11 09:55 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		1.00	11I0178	09/22/11 19:18	MS	TAL SPK

Client Sample ID: NK-11-WP-02 — Lab Sample ID: AUI0080-04

Date Collected: 09/14/11 17:00 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		10.0	11I0178	09/22/11 19:45	MS	TAL SPK
Total	Prep	EPA 3510/600 Series		1.93	11I0244_P	09/29/11 12:57	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	11I0244	09/29/11 19:38	MS	TAL SPK
Total	Prep	EPA 3510		0.806	11I0136_P	09/27/11 09:13	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000764	09/27/11 16:31	DEB	TAL ANC
Total	Prep	EPA 5030B		1.00	11I0135_P	09/26/11 16:15	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		1.00	U000760	09/26/11 23:05	JJB	TAL ANC

Client Sample ID: NK-11-WP-03 — Lab Sample ID: AUI0080-05

Date Collected: 09/14/11 15:20 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		1.00	11I0178	09/22/11 20:12	MS	TAL SPK
Total	Prep	EPA 3510/600 Series		3.20	11I0244_P	09/29/11 12:57	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	11I0244	09/29/11 20:05	MS	TAL SPK
Total	Prep	EPA 3510		0.855	11I0136_P	09/27/11 09:13	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000764	09/27/11 17:37	DEB	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-WP-03 — Lab Sample ID: AUI0080-05

Date Collected: 09/14/11 15:20 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I0135_P	09/26/11 16:15	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		1.00	U000760	09/26/11 22:41	JJB	TAL ANC

Client Sample ID: NK-11-TB-01 — Lab Sample ID: AUI0080-06

Date Collected: 09/13/11 16:30 — **Matrix: Water**
Date Received: 09/21/11 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	11I0178_P	09/22/11 14:57	CBW	TAL SPK
Total	Analysis	EPA 8260B		1.00	11I0178	09/22/11 20:39	MS	TAL SPK
Total	Prep	EPA 5030B		1.00	11I0101_P	09/21/11 14:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		1.00	U000738	09/22/11 14:22	JMG	TAL ANC

Client Sample ID: NK-11-SS-01 — Lab Sample ID: AUI0080-07

Date Collected: 09/16/11 18:00 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 72.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0109_P	09/22/11 09:43	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0109	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.63	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000769	09/28/11 19:02	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.769	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 08:18	JJB	TAL ANC

Client Sample ID: NK-11-SS-02 — Lab Sample ID: AUI0080-08

Date Collected: 09/16/11 18:40 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 69.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	2.26	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	20.0	U000788	10/02/11 22:00	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.405	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 15:17	JJB	TAL ANC

Client Sample ID: NK-11-SS-03 — Lab Sample ID: AUI0080-09

Date Collected: 09/16/11 19:50 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 70.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-03 — Lab Sample ID: AUI0080-09

Date Collected: 09/16/11 19:50 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 70.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3545	RE1	0.973	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000768	09/28/11 22:52	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.491	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 08:43	JJB	TAL ANC

Client Sample ID: NK-11-SS-04 — Lab Sample ID: AUI0080-10

Date Collected: 09/16/11 20:15 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 66.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.04	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000769	09/29/11 06:02	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.415	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 09:08	JJB	TAL ANC

Client Sample ID: NK-11-SS-05 — Lab Sample ID: AUI0080-11

Date Collected: 09/17/11 15:15 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 64**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.86	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000769	09/28/11 22:52	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.604	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 10:21	JJB	TAL ANC

Client Sample ID: NK-11-SS-06 — Lab Sample ID: AUI0080-12

Date Collected: 09/17/11 16:00 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 72.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.55	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 15:24	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.426	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 11:11	JJB	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-07

Lab Sample ID: AUI0080-13
Date Collected: 09/17/11 16:50
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 65.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	0.907	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000773	09/29/11 15:24	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.424	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 10:46	JJB	TAL ANC

Client Sample ID: NK-11-SS-08

Lab Sample ID: AUI0080-14
Date Collected: 09/17/11 17:20
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.65	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 15:59	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.695	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 15:42	JJB	TAL ANC

Client Sample ID: NK-11-SS-09

Lab Sample ID: AUI0080-15
Date Collected: 09/17/11 17:50
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.26	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000773	09/29/11 15:59	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.547	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 09:32	JJB	TAL ANC

Client Sample ID: NK-11-SS-10

Lab Sample ID: AUI0080-16
Date Collected: 09/17/11 18:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 65.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.23	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 16:33	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.413	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 09:56	JJB	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-11

Lab Sample ID: AUI0080-17

Date Collected: 09/17/11 19:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 71.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.98	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	20.0	U000773	09/29/11 16:33	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.548	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 16:07	JJB	TAL ANC
Total	Prep	AK101 Field Prep	RE1	0.548	11I0166_P	10/01/11 10:02	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B	RE1	500	U000785	10/01/11 13:52	JJB	TAL ANC

Client Sample ID: NK-11-SS-12

Lab Sample ID: AUI0080-18

Date Collected: 09/17/11 20:00
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 65.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	2.29	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	10.0	U000772	09/29/11 17:06	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.498	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 16:31	JJB	TAL ANC
Total	Prep	AK101 Field Prep	RE1	0.498	11I0166_P	10/01/11 10:02	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B	RE1	500	U000785	10/01/11 15:53	JJB	TAL ANC

Client Sample ID: NK-11-SS-13

Lab Sample ID: AUI0080-19

Date Collected: 09/17/11 20:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 73.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		1.16	11I0214_P	09/27/11 10:06	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		500	11I0214	10/03/11 09:52	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		5.00	11I0214	09/29/11 12:32	MS	TAL SPK
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	2.80	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	10.0	U000773	09/29/11 17:06	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.361	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 06:23	MS	TAL ANC
Total	Prep	Wet Chem		1.00	11I0232_P	09/27/11 16:40	MS	TAL SPK
Total	Analysis	TA SOP		1.00	11I0232	09/28/11 09:22	MS	TAL SPK

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-14

Lab Sample ID: AUI0080-20
Date Collected: 09/18/11 12:00
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 60.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.33	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 17:39	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.357	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/29/11 21:03	DEB	TAL ANC

Client Sample ID: NK-11-SS-15

Lab Sample ID: AUI0080-21
Date Collected: 09/18/11 12:05
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 47.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	2.44	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	10.0	U000773	09/29/11 17:39	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.869	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 01:55	MS	TAL ANC

Client Sample ID: NK-11-SS-16

Lab Sample ID: AUI0080-22
Date Collected: 09/18/11 12:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.86	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 18:45	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.449	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 02:20	DEB	TAL ANC

Client Sample ID: NK-11-SS-17

Lab Sample ID: AUI0080-23
Date Collected: 09/18/11 12:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 61.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.22	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000773	09/29/11 18:45	DEB	TAL ANC
Total	Prep	AK101 Field Prep		1.00	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 02:44	DEB	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-18 — Lab Sample ID: AUI0080-24

Date Collected: 09/18/11 13:35 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 66.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.17	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000772	09/29/11 19:19	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.469	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 03:08	DEB	TAL ANC

Client Sample ID: NK-11-SS-19 — Lab Sample ID: AUI0080-25

Date Collected: 09/18/11 14:30 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 72.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	EPA 3545	RE1	1.43	11I0137_P	09/27/11 09:14	DEB	TAL ANC
Total	Analysis	AK102/103	RE1	1.00	U000773	09/29/11 19:19	DEB	TAL ANC
Total	Prep	AK101 Field Prep		0.417	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 03:33	DEB	TAL ANC

Client Sample ID: NK-11-SS-20 — Lab Sample ID: AUI0080-26

Date Collected: 09/18/11 15:20 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 75**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		1.00	11I0214_P	09/27/11 10:06	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	11I0214	10/03/11 10:18	MS	TAL SPK
Total	Prep	EPA 3545		1.78	11I0107_P	09/22/11 15:28	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000746	09/24/11 06:46	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC
Total	Prep	AK101 Field Prep		0.346	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 05:34	DEB	TAL ANC
Total	Prep	Wet Chem		1.00	11I0232_P	09/27/11 16:40	MS	TAL SPK
Total	Analysis	TA SOP		1.00	11I0232	09/28/11 09:22	MS	TAL SPK

Client Sample ID: NK-11-SS-21 — Lab Sample ID: AUI0080-27

Date Collected: 09/18/11 16:00 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 74.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3545		1.19	11I0107_P	09/22/11 15:28	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000745	09/24/11 07:52	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0108_P	09/22/11 09:42	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0108	09/23/11 09:30	JMG	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Client Sample ID: NK-11-SS-21

Lab Sample ID: AUI0080-27

Date Collected: 09/18/11 16:00
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	AK101 Field Prep		0.524	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 05:59	MS	TAL ANC

Client Sample ID: NK-11-TB-02

Lab Sample ID: AUI0080-28

Date Collected: 09/16/11 17:50
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 100

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0109_P	09/22/11 09:43	KL	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0109	09/23/11 09:30	JMG	TAL ANC
Total	Prep	AK101 Field Prep		1.00	11I0149_P	09/28/11 16:26	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000770	09/29/11 05:01	JJB	TAL ANC

Laboratory References:
TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200
TAL SPK = TestAmerica Spokane, 11922 E. 1st Ave., Spokane, WA/USA 99206, TEL (509) 924-9200

Certification Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Anchorage	Alaska	Alaska UST	10	UST-067
TestAmerica Anchorage	Alaska	State Program	10	AK00975
TestAmerica Spokane	Alaska	Alaska UST	10	UST-071
TestAmerica Spokane	Washington	State Program	10	C569

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Method	Method Description	Protocol	Laboratory
EPA 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL SPK
EPA 8270 mod.	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
AK102/103	Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO		TAL ANC
TA-SOP	Physical Parameters by APHA/ASTM/EPA Methods		TAL ANC
AK101/EPA 8021B	Gasoline Range Organics (C6-C10) and BTEX per AK101		TAL ANC
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200

TAL SPK = TestAmerica Spokane, 11922 E. 1st Ave., Spokane, WA/USA 99206, TEL (509) 924-9200

Sample Summary

Client: Oasis Environmental, Inc.
Project/Site: 14-207

TestAmerica Job ID: AUI0080

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
AUI0080-01	NK-11-DW-01	Water	09/13/11 16:50	09/21/11 09:10
AUI0080-02	NK-11-DW-02	Water	09/13/11 17:00	09/21/11 09:10
AUI0080-03	NK-11-DW-03	Water	09/14/11 09:55	09/21/11 09:10
AUI0080-04	NK-11-WP-02	Water	09/14/11 17:00	09/21/11 09:10
AUI0080-05	NK-11-WP-03	Water	09/14/11 15:20	09/21/11 09:10
AUI0080-06	NK-11-TB-01	Water	09/13/11 16:30	09/21/11 09:10
AUI0080-07	NK-11-SS-01	Soil	09/16/11 18:00	09/21/11 09:10
AUI0080-08	NK-11-SS-02	Soil	09/16/11 18:40	09/21/11 09:10
AUI0080-09	NK-11-SS-03	Soil	09/16/11 19:50	09/21/11 09:10
AUI0080-10	NK-11-SS-04	Soil	09/16/11 20:15	09/21/11 09:10
AUI0080-11	NK-11-SS-05	Soil	09/17/11 15:15	09/21/11 09:10
AUI0080-12	NK-11-SS-06	Soil	09/17/11 16:00	09/21/11 09:10
AUI0080-13	NK-11-SS-07	Soil	09/17/11 16:50	09/21/11 09:10
AUI0080-14	NK-11-SS-08	Soil	09/17/11 17:20	09/21/11 09:10
AUI0080-15	NK-11-SS-09	Soil	09/17/11 17:50	09/21/11 09:10
AUI0080-16	NK-11-SS-10	Soil	09/17/11 18:30	09/21/11 09:10
AUI0080-17	NK-11-SS-11	Soil	09/17/11 19:45	09/21/11 09:10
AUI0080-18	NK-11-SS-12	Soil	09/17/11 20:00	09/21/11 09:10
AUI0080-19	NK-11-SS-13	Soil	09/17/11 20:45	09/21/11 09:10
AUI0080-20	NK-11-SS-14	Soil	09/18/11 12:00	09/21/11 09:10
AUI0080-21	NK-11-SS-15	Soil	09/18/11 12:05	09/21/11 09:10
AUI0080-22	NK-11-SS-16	Soil	09/18/11 12:30	09/21/11 09:10
AUI0080-23	NK-11-SS-17	Soil	09/18/11 12:45	09/21/11 09:10
AUI0080-24	NK-11-SS-18	Soil	09/18/11 13:35	09/21/11 09:10
AUI0080-25	NK-11-SS-19	Soil	09/18/11 14:30	09/21/11 09:10
AUI0080-26	NK-11-SS-20	Soil	09/18/11 15:20	09/21/11 09:10
AUI0080-27	NK-11-SS-21	Soil	09/18/11 16:00	09/21/11 09:10
AUI0080-28	NK-11-TB-02	Soil	09/16/11 17:50	09/21/11 09:10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210 ☒

CHAIN OF CUSTODY REPORT

Work Order #: AU70080

CLIENT: ADEC-Napaskiak

REPORT TO: OASIS
ADDRESS: 825 W 8th Ave
Anchorage, AK 99501
PHONE: (907) 258 4880 FAX: L.Nicholson@oasisenviro.com

INVOICE TO: OASIS
825 W 8th Ave
Anchorage, AK 99501

P.O. NUMBER: 14-207

PROJECT NAME: ADEC-Napaskiak
PROJECT NUMBER: 14-207
SAMPLED BY: EB/SC

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: HCl | HCl | ~~HCl~~ | —

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs	GRO/BTEX	DRO/RRO	PAH	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 NK-11-DW-01	9/13/11 16:50	X				W	3		
2 NK-11-DW-02	9/13/11 17:00	X				W	3		
3 NK-11-DW-03	9/14/11 09:55	X				W	3		
~~4 NK-11-WP-01~~	~~9/14/11 14:50~~								ESB 9/19/11
5 NK-11-WP-02	9/14/11 17:00	X	X	X	X	W	10	Limited Volume 2nd PAH bottle	
6 NK-11-WP-03	9/14/11 15:20	2	2	2	1	W	7	Limited volume	
7 NK-11-TB-01	9/13/11 16:30	X	X			W	6		
8 NK-11-SS-01	9/16/11 18:00	MeOH	X	X	NO PRES.	S	2		
9 NK-11-SS-02	9/16/11 18:40	MeOH	X	X	NO PRES.	S	2		
10 NK-11-SS-03	9/16/11 19:50	MeOH	X	X	NO PRES.	S	2		

RELEASED BY: Eric Boyette
PRINT NAME: Eric Boyette FIRM: OASIS DATE: 9/21/11 TIME: 09:00

RECEIVED BY: Sara Foster
PRINT NAME: Sara Foster FIRM: TA ANC DATE: 9/21/11 TIME: 0910

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 1) 6.6 cooler 5.9 2) 6.5 cooler 5.8

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: AWI0080

CLIENT: ADEC - Napaskiak

REPORT TO: OASIS Environmental
ADDRESS: 825 W 8th Ave
Anchorage, AK 99501
PHONE: (907) 258 4880 FAX:

INVOICE TO: OASIS Env.
825 W 8th Ave
Anchorage, AK 99501

P.O. NUMBER:

PROJECT NAME: ADEC - Napaskiak
PROJECT NUMBER: 14-207
SAMPLED BY: EB/SC

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: [10 STD.] 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 STD. 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: NA | MEOH | NA

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO/RRO	GRO/BTEX	PAH	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	NK-11-SS-04	9/16/11 20:15	X	X		S	2		
2	NK-11-SS-05	9/17/11 15:15	X	X					
3	NK-11-SS-06	9/17/11 16:00	X	X					
4	NK-11-SS-07	9/17/11 16:50	X	X					
5	NK-11-SS-08	9/17/11 17:20	X	X					
6	NK-11-SS-09	9/17/11 17:50	X	X					
7	NK-11-SS-10	9/17/11 18:30	X	X					
8	NK-11-SS-11	9/17/11 19:45	X	X					
9	NK-11-SS-12	9/17/11 20:00	X	X					
10	NK-11-SS-13	9/17/11 20:45	X	X	X				

RELEASED BY: E. Boyette
PRINT NAME: Eric Boyette FIRM: OASIS DATE: 9/21/11 TIME: 09:00

RECEIVED BY: Jane Foster Sara Foster
PRINT NAME: FIRM: TA-ANC DATE: 9/21/11 TIME: 0910

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 1) 6.6 cooler 5.9 2) 6.5 cooler 5.8

PAGE 2 OF 3

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10/05/2011

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210 X

CHAIN OF CUSTODY REPORT

Work Order #: AUI0080

CLIENT: ADEC - Napaskiak

REPORT TO: OASIS Environmental
ADDRESS: 825 W 8th Ave
Anchorage, AK 99501
PHONE: (907) 258-4880 FAX:

INVOICE TO: OASIS Environment
825 W 8th Ave
Anchorage, AK 99501

P.O. NUMBER:

PROJECT NAME: ADEC - Napaskiak
PROJECT NUMBER: 14-207
SAMPLED BY: EB/SC

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: 10 (STD.) 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 (STD.) 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: N/A, MeOH, N/A

REQUESTED ANALYSES: DRO/ERO, GRO/BTEX, PAH

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO/ERO	GRO/BTEX	PAH	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
20	1 NK-11-SS-14	9/18/11 12:00	X	X		S	2		
21	2 NK-11-SS-15	9/18/11 12:05	X	X					
22	3 NK-11-SS-16	9/18/11 12:30	X	X					
23	4 NK-11-SS-17	9/18/11 12:45	X	X					
24	5 NK-11-SS-18	9/18/11 13:35	X	X					
25	6 NK-11-SS-19	9/18/11 14:30	X	X					
26	7 NK-11-SS-20	9/18/11 15:20	X	X	X				
27	8 NK-11-SS-21	9/18/11 16:00	X	X					
28	9 NK-11-TB-02	9/16/11 17:50		X			1		
29	10								

RELEASED BY: Eric Boyette
PRINT NAME: Eric Boyette FIRM: OASIS DATE: 9/21/11 TIME: 09:00

RECEIVED BY: Sara Foster
PRINT NAME: Sara Foster FIRM: TA ANC DATE: 9/21/11 TIME: 0910

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 1) 6.6 cooler 5.9 2) 6.5 cooler 5.8

PAGE 3 OF 3

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10/05/2011

Volatiles

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # AU1E080 CLIENT: OASIS PROJECT: ADEC

Date /Time Cooler Arrived 9 / 21 / 11 09: 10 Cooler signed for by: Sara Foster (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ___/___/___

Cooler opened by (print) Sara Foster (sign) [signature]

1. Delivered by ☐ALASKA AIRLINES ☐Fed-Ex ☐UPS ☐NAC ☐LYNDEN ☒CLIENT ☐Other: ___

Shipment Tracking # if applicable ___ (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ___ Date ___/___/___

Were custody seals unbroken and intact on arrival? ☐Yes ☐No NA

3. Were custody papers sealed in a plastic bag? ☒Yes ☐No
4. Were custody papers filled out properly (ink, signed, etc.)? ☒Yes ☐No
5. Did you sign the custody papers in the appropriate place? ☒Yes ☐No
6. Was ice used? ☒Yes ☐No Type of ice: ☐blue ice ☒gel ice ☒real ice ☐dry ice Condition of Ice: OK

Temperature 6.6 °C (corrected) Thermometer # 5
cooler 5.9 °C

7. Packing in Cooler: ☒bubble wrap ☐styrofoam ☐cardboard ☐Other: ___
8. Did samples arrive in plastic bags? ☒Yes ☐No
9. Did all bottles arrive unbroken, and with labels in good condition? ☒Yes ☐No
10. Are all bottle labels complete (ID, date, time, etc.) ☒Yes ☐No
11. Do bottle labels and Chain of Custody agree? ☒Yes ☐No
12. Are the containers and preservatives correct for the tests indicated? ☒Yes ☐No
13. Conoco Phillips, Alyeska, BP H2O samples only, pH <2? ☐Yes ☐Yes ☒N/A
14. Is there adequate volume for the tests requested? ☐Yes ☒No
15. Were VOA vials free of bubbles? ☐N/A ☒Yes ☐No

If "NO" which containers contained "head space" or bubbles? ___

16. Are methanol soils immersed in methanol? ☒Yes ☐Yes ☒N/A

PAH H_2O Sample recieved near past hold. Client instructed to run past hold.

Limited volume samples listed on COC

VOA SF

Log-in Phase:

Date of sample log-in 9 / 21 / 11

Samples logged in by (print) Sara Foster (sign) [signature]

1. Was project identifiable from custody papers? ☒Yes ☐No
2. Do Turn Around Times and Due Dates agree? ☒Yes ☐No
3. Was the Project Manager notified of status? ☒Yes ☐No
4. Was the Lab notified of status? ☒Yes ☐No
5. Was the COC scanned and copied? ☒Yes ☐No

AK-FORM-SPL-005 16 August 2011

nonvolatiles

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # AU70080 CLIENT: Oasis PROJECT: ADEC

Date /Time Cooler Arrived 9 / 21 / 11 09:10 Cooler signed for by: Sara Foster (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ___/___/___

Cooler opened by (print) Sara Foster (sign) Sara Foster

1. Delivered by ☐ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☒ CLIENT ☐ Other:

Shipment Tracking # if applicable — (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by — Date — / — / —

Were custody seals unbroken and intact on arrival? ☐ Yes ☐ No

3. Were custody papers sealed in a plastic bag? ☒ Yes ☐ No
4. Were custody papers filled out properly (ink, signed, etc.)? ☒ Yes ☐ No
5. Did you sign the custody papers in the appropriate place? ☒ Yes ☐ No
6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☒ gel ice ☒ real ice ☐ dry ice Condition of Ice: OK

Temperature 6.5 °C (corrected) Thermometer # 5

7. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☐ cardboard ☐ Other:
8. Did samples arrive in plastic bags? ☒ Yes ☐ No
9. Did all bottles arrive unbroken, and with labels in good condition? ☒ Yes ☐ No
10. Are all bottle labels complete (ID, date, time, etc.) ☒ Yes ☐ No
11. Do bottle labels and Chain of Custody agree? ☒ Yes ☐ No
12. Are the containers and preservatives correct for the tests indicated? ☒ Yes ☐ No
13. Conoco Phillips, Alyeska, BP H2O samples only, pH <2? ☐ Yes ☐ Yes ☒ N/A
14. Is there adequate volume for the tests requested? ☒ Yes ☐ No
15. Were VOA vials free of bubbles? ☒ N/A ☐ Yes ☐ No

If "NO" which containers contained "head space" or bubbles? ___

16. Are methanol soils immersed in methanol? ☐ Yes ☐ Yes ☐ N/A

Labels not on jar. Written on lid

PAH samples were subsampled from DRO/RRO jar – subsampled into 2 oz jars & sent to Spokane.

Log-in Phase:

Date of sample log-in 9 / 21 / 11

Samples logged in by (print) Sara Foster (sign) Sara Foster

1. Was project identifiable from custody papers? ☒ Yes ☐ No
2. Do Turn Around Times and Due Dates agree? ☒ Yes ☐ No
3. Was the Project Manager notified of status? ☒ Yes ☐ No
4. Was the Lab notified of status? ☒ Yes ☐ No
5. Was the COC scanned and copied? ☒ Yes ☐ No

AK-FORM-SPL-005 16 August 2011

Laboratory Data Review Checklist

Completed by:	Melissa Pike		
Title:	Environmental Scientist	Date:	Nov 30, 2011
CS Report Name:	Napaskiak Former BIA School Day Tanks Site Characterization Report	Report Date:	December 2011
Consultant Firm:	OASIS Environmental, Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	AUI0080
ADEC File Number:	2433.38.004	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:

8260 and 8270-SIM samples were subcontracted from TestAmerica Anchorage to TestAmerica Spokane.

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° ± 2° C)?

( ) Yes (●) No ( ) NA (Please explain) Comments:

Coolers were recorded at 5.9°C and 6.5°C. Temperature blanks at 6.6°C and 6.5°C. No data was qualified due to temperature.

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

Samples arrived in good condition. Limited volume was present in PAH samples NK-11-WP-02 and NK-11-WP-03.

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:

PAH water samples were received close to holding time being exceeded. Refer to QAR for additional details.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability is somewhat affected. Refer to QAR for further details.

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:

CCV for GRO/BTEX did not meet criteria and samples were re-extracted.

c. Were all corrective actions documented?

( ) Yes ( ) No (●) NA (Please explain) Comments:

There were no corrective actions.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality and usability is not affected with respect to the case narrative.

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:

PAH samples were received almost out of holding time in Anchorage. Samples were shipped to TA Spokane for analysis. Refer to QAR for further details.

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:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability is somewhat affected with respect to the reported sample results. Refer to QAR for further details.

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:

iii. If above PQL, what samples are affected? Comments:

NA.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

NA. No results were above the PQL.

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability is not affected with respect to the reported method blank results.

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:

There are no metal or inorganic analyses.

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:

Several MS/MSD RPDs in BTEX and GRO were outside the control limits. DRO RPDs in Lab Duplicate were outside of control limits. Refer to QAR for further details.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Refer to QAR for details.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain) Comments:

Data is considered estimated and qualified (J). Refer to QAR for further details.

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:

Surrogates for GRO/BTEX were outside of the limits in several samples.

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:

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability is somewhat affected with respect to the surrogate results. Refer to QAR for further details.

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:

NA. No samples were above the PQL.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability is not affected with respect to the reported trip blank results.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

Primary NK-11-SS-11 with duplicate NK-11-SS-12

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

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 and usability is not affected with respect to the reported field duplicate results.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

ii. If above PQL, what samples are affected?

Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

iii. Data quality or usability affected? (Please explain.)

Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Comments:

○ Yes ○ No ◉ NA (Please explain)

There were no additional data qualifiers or data flags.

Reset Form

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Anchorage
2000 West International Airport Road Suite A10
Anchorage, AK 99502-1119
Tel: (907) 563-9200

TestAmerica Job ID: AUI0093
Client Project/Site: 658-002
Client Project Description: LKSD

For:
Oasis Environmental, Inc.
825 W 8th Ave, ste 200
Anchorage, AK/USA 99501-4427

Attn: Lisa Nicholson

Johanna Dreher

Authorized for release by:
10/10/2011 05:19:26 PM

Johanna L Dreher
Client Services Manager
johanna.dreher@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.

Table of Contents

Definitions/Glossary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
RL1	Reporting limit raised due to sample matrix effects.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Fuels

Qualifier	Qualifier Description
RL7	Sample required dilution due to high concentrations of target analyte.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
Q2	Typical pattern for diesel
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

GC Volatiles

Qualifier	Qualifier Description
C4	Calibration Verification recovery was below the method control limit for this analyte.
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
R2	The RPD exceeded the acceptance limit.
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
Z6	Surrogate recovery was below acceptance limits.
Z1	Surrogate recovery was above acceptance limits.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
R1	The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000B, the higher value was reported.
N1	See case narrative.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Job ID: AUI0093

Laboratory: TestAmerica Anchorage

Narrative

Receipt
All samples were received in good condition within temperature requirements at all laboratories.

Subcontracted
8270 SIM PAH, SPLP DRO, and SPLP 8270 PAH samples were subcontracted to TestAmerica Portland from TestAmerica Anchorage.

AK 101 (GRO/BTEX)
Sample AUI0093-04 may have possible carryover in total xylenes.

The LCS associated with these samples recovered below acceptance limits for benzene, toluene, ethylbenze, and total xylenes. Affected analytes may be biased low. All affected samples were flagged L2.

Calibration verification recovery was below the method control limits for ethylbenzene and total xylenes. Affected analytes may be biased low. All affected samples were flagged C4.

Detection Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-22 — Lab Sample ID: AUI0093-01

No Detections

Client Sample ID: NK-11-SS-23 — Lab Sample ID: AUI0093-02

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.237		0.0500		mg/l	1.00		1312/8270	SPLP
Anthracene	36.4		17.2		ug/kg dry	1.00	☼	EPA 8270m	Total
Fluoranthene	60.8		17.2		ug/kg dry	1.00	☼	EPA 8270m	Total
Fluorene	1410		858		ug/kg dry	50.0	☼	EPA 8270m	Total
Naphthalene	34600		858		ug/kg dry	50.0	☼	EPA 8270m	Total
Phenanthrene	466		17.2		ug/kg dry	1.00	☼	EPA 8270m	Total
Pyrene	50.0		17.2		ug/kg dry	1.00	☼	EPA 8270m	Total
Diesel Range Organics	4.55		0.250		mg/l	1.00		1312/AK102	SPLP
Diesel Range Organics	15600	Q2 RL7	731		mg/kg dry	20.0	☼	AK102/103	Total
Gasoline Range Organics	237	E	2.52		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Benzene	0.137	L2	0.0152		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.676	L2 R1	0.0303		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	5.00	C4 L2	0.0303		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	25.3	C4 E L2	0.0910		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-24 — Lab Sample ID: AUI0093-03

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	15800	Q2 RL7	519		mg/kg dry	20.0	☼	AK102/103	Total
Gasoline Range Organics	480	E	2.62		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Benzene	0.241	L2	0.0158		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	1.26	L2 R1	0.0315		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	8.44	C4 L2 E	0.0315		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	43.0	C4 E L2	0.0946		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-25 — Lab Sample ID: AUI0093-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	24.0		17.9		ug/kg dry	1.00	☼	EPA 8270m	Total
Fluorene	57.8		17.9		ug/kg dry	1.00	☼	EPA 8270m	Total
Naphthalene	1210		179		ug/kg dry	10.0	☼	EPA 8270m	Total
Diesel Range Organics	0.712		0.248		mg/l	1.00		1312/AK102	SPLP
Diesel Range Organics	316	Q2 RL1	39.9		mg/kg dry	1.00	☼	AK102/103	Total
Gasoline Range Organics	51.6		3.05		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.176	L2 R1	0.0367		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.236	C4 L2	0.0367		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.974	C4 L2 N1	0.110		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Client Sample ID: NK-11-SS-26 — Lab Sample ID: AUI0093-05

No Detections

Client Sample ID: NK-11-SS-27 — Lab Sample ID: AUI0093-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics	5.98		3.46		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Toluene	0.0451	L2 R1	0.0416		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Ethylbenzene	0.103	C4 L2	0.0416		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total
Xylenes (total)	0.380	C4 L2	0.125		mg/kg dry	33.3	☼	AK101/EPA 8021B	Total

Detection Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-TB-03 **Lab Sample ID: AUI0093-07**

No Detections

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-22

Date Collected: 09/18/11 17:45
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0093-01

Matrix: Soil
Percent Solids: 63.4

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND	RL1	50.8		mg/kg dry	☼	09/26/11 10:36	09/28/11 06:17	1.00
Residual Range Organics	ND	RL1	127		mg/kg dry	☼	09/26/11 10:36	09/28/11 06:17	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*91.7*		*50 - 150*	*09/26/11 10:36*	*09/28/11 06:17*	*1.00*
Triacontane	*83.9*		*50 - 150*	*09/26/11 10:36*	*09/28/11 06:17*	*1.00*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.59		mg/kg dry	☼	09/29/11 16:50	09/29/11 22:40	33.3
Benzene	ND	L2	0.0275		mg/kg dry	☼	09/29/11 16:50	09/29/11 22:40	33.3
Toluene	ND	L2	0.0551		mg/kg dry	☼	09/29/11 16:50	09/29/11 22:40	33.3
Ethylbenzene	ND	C4 L2	0.0551		mg/kg dry	☼	09/29/11 16:50	09/29/11 22:40	33.3
Xylenes (total)	ND	C4 L2	0.165		mg/kg dry	☼	09/29/11 16:50	09/29/11 22:40	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*80.6*		*50 - 150*	*09/29/11 16:50*	*09/29/11 22:40*	*33.3*
a,a,a-TFT (FID)	*18.9*	*Z6*	*50 - 150*	*09/29/11 16:50*	*09/29/11 22:40*	*33.3*
4-BFB (PID)	*84.1*		*50 - 150*	*09/29/11 16:50*	*09/29/11 22:40*	*33.3*
a,a,a-TFT (PID)	*20.0*	*Z6*	*50 - 150*	*09/29/11 16:50*	*09/29/11 22:40*	*33.3*

Client Sample ID: NK-11-SS-23

Date Collected: 09/18/11 18:15
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0093-02

Matrix: Soil
Percent Solids: 77.6

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270 - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Acenaphthylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Benzo (a) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Benzo (b) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Benzo (k) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Benzo (ghi) perylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Benzo (a) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Chrysene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Dibenzo (a,h) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Fluorene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Naphthalene	**0.237**		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Phenanthrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00
Pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:10	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*90.7*		*29 - 140*	*09/30/11 13:00*	*10/03/11 20:10*	*1.00*
2-Fluorobiphenyl	*48.9*		*12 - 135*	*09/30/11 13:00*	*10/03/11 20:10*	*1.00*
p-Terphenyl-d14	*94.0*		*47 - 138*	*09/30/11 13:00*	*10/03/11 20:10*	*1.00*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-23

Date Collected: 09/18/11 18:15
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0093-02

Matrix: Soil
Percent Solids: 77.6

Method: EPA 1312 - SPLP Extraction only - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Extraction	ND		1.00		N/A		09/28/11 23:21	09/29/11 15:30	1.00

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	RL1	858		ug/kg dry	☼	09/26/11 13:20	09/28/11 13:07	50.0
Acenaphthylene	ND	RL1	858		ug/kg dry	☼	09/26/11 13:20	09/28/11 13:07	50.0
Anthracene	**36.4**		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Benzo (a) anthracene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Benzo (a) pyrene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Benzo (b) fluoranthene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Benzo (ghi) perylene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Benzo (k) fluoranthene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Chrysene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Dibenzo (a,h) anthracene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Fluoranthene	**60.8**		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Fluorene	**1410**		858		ug/kg dry	☼	09/26/11 13:20	09/28/11 13:07	50.0
Indeno (1,2,3-cd) pyrene	ND		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Naphthalene	**34600**		858		ug/kg dry	☼	09/26/11 13:20	09/28/11 13:07	50.0
Phenanthrene	**466**		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00
Pyrene	**50.0**		17.2		ug/kg dry	☼	09/26/11 13:20	09/27/11 20:50	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorene-d10		*Z3*	*24 - 125*	*09/26/11 13:20*	*09/28/11 13:07*	*50.0*
Pyrene-d10	*99.9*		*41 - 141*	*09/26/11 13:20*	*09/27/11 20:50*	*1.00*
Benzo (a) pyrene-d12	*101*		*38 - 143*	*09/26/11 13:20*	*09/27/11 20:50*	*1.00*

Method: 1312/AK102 - Diesel Range Organics (C10-C25) per AK102 on SPLP Extracted Sample - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**4.55**		0.250		mg/l		10/05/11 10:30	10/05/11 13:57	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*86.2*		*50 - 150*	*10/05/11 10:30*	*10/05/11 13:57*	*1.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**15600**	**Q2 RL7**	731		mg/kg dry	☼	09/26/11 10:36	09/28/11 20:40	20.0
Residual Range Organics	ND	RL7	1830		mg/kg dry	☼	09/26/11 10:36	09/28/11 20:40	20.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*107*		*50 - 150*	*09/26/11 10:36*	*09/28/11 20:40*	*20.0*
Triacontane	*101*		*50 - 150*	*09/26/11 10:36*	*09/28/11 20:40*	*20.0*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**237**	**E**	2.52		mg/kg dry	☼	09/29/11 16:50	09/29/11 23:53	33.3
Benzene	**0.137**	**L2**	0.0152		mg/kg dry	☼	09/29/11 16:50	09/29/11 23:53	33.3
Toluene	**0.676**	**L2 R1**	0.0303		mg/kg dry	☼	09/29/11 16:50	09/29/11 23:53	33.3
Ethylbenzene	**5.00**	**C4 L2**	0.0303		mg/kg dry	☼	09/29/11 16:50	09/29/11 23:53	33.3
Xylenes (total)	**25.3**	**C4 E L2**	0.0910		mg/kg dry	☼	09/29/11 16:50	09/29/11 23:53	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*327*	*Z1*	*50 - 150*	*09/29/11 16:50*	*09/29/11 23:53*	*33.3*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-23

Lab Sample ID: AUI0093-02
Date Collected: 09/18/11 18:15
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 79.8

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-TFT (FID)	184	Z1	50 - 150	09/29/11 16:50	09/29/11 23:53	33.3
4-BFB (PID)	139		50 - 150	09/29/11 16:50	09/29/11 23:53	33.3
a,a,a-TFT (PID)	86.6		50 - 150	09/29/11 16:50	09/29/11 23:53	33.3

Client Sample ID: NK-11-SS-24

Lab Sample ID: AUI0093-03
Date Collected: 09/18/11 18:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 78.1

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**15800**	**Q2 RL7**	519		mg/kg dry	☼	09/26/11 10:36	09/28/11 20:40	20.0
Residual Range Organics	ND	RL7	1300		mg/kg dry	☼	09/26/11 10:36	09/28/11 20:40	20.0

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	104		50 - 150	09/26/11 10:36	09/28/11 20:40	20.0
Triacontane	96.9		50 - 150	09/26/11 10:36	09/28/11 20:40	20.0

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**480**	**E**	2.62		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:18	33.3
Benzene	**0.241**	**L2**	0.0158		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:18	33.3
Toluene	**1.26**	**L2 R1**	0.0315		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:18	33.3
Ethylbenzene	**8.44**	**C4 L2 E**	0.0315		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:18	33.3
Xylenes (total)	**43.0**	**C4 E L2**	0.0946		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:18	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	499	Z6	50 - 150	09/29/11 16:50	09/30/11 00:18	33.3
a,a,a-TFT (FID)	322	Z6	50 - 150	09/29/11 16:50	09/30/11 00:18	33.3
4-BFB (PID)	169	Z6	50 - 150	09/29/11 16:50	09/30/11 00:18	33.3
a,a,a-TFT (PID)	114		50 - 150	09/29/11 16:50	09/30/11 00:18	33.3

Client Sample ID: NK-11-SS-25

Lab Sample ID: AUI0093-04
Date Collected: 09/18/11 18:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 73.5

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270 - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Acenaphthylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Benzo (a) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Benzo (b) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Benzo (k) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Benzo (ghi) perylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Benzo (a) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Chrysene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Dibenzo (a,h) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Fluorene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-25
Date Collected: 09/18/11 18:45
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0093-04
Matrix: Soil
Percent Solids: 73.5

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270 - SPLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno (1,2,3-cd) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Naphthalene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Phenanthrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00
Pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 20:55	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*98.4*		*29 - 140*	*09/30/11 13:00*	*10/03/11 20:55*	*1.00*
2-Fluorobiphenyl	*87.0*		*12 - 135*	*09/30/11 13:00*	*10/03/11 20:55*	*1.00*
p-Terphenyl-d14	*95.0*		*47 - 138*	*09/30/11 13:00*	*10/03/11 20:55*	*1.00*

Method: EPA 1312 - SPLP Extraction only - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Extraction	ND		1.00		N/A		09/28/11 23:21	09/29/11 15:30	1.00

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**24.0**		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Acenaphthylene	ND	RL1	35.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Anthracene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Benzo (a) anthracene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Benzo (a) pyrene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Benzo (b) fluoranthene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Benzo (ghi) perylene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Benzo (k) fluoranthene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Chrysene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Dibenzo (a,h) anthracene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Fluoranthene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Fluorene	**57.8**		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Indeno (1,2,3-cd) pyrene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Naphthalene	**1210**		179		ug/kg dry	☼	09/26/11 13:20	09/28/11 13:38	10.0
Phenanthrene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00
Pyrene	ND		17.9		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:20	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorene-d10	*77.9*		*24 - 125*	*09/26/11 13:20*	*09/27/11 21:20*	*1.00*
Pyrene-d10	*108*		*41 - 141*	*09/26/11 13:20*	*09/27/11 21:20*	*1.00*
Benzo (a) pyrene-d12	*97.0*		*38 - 143*	*09/26/11 13:20*	*09/27/11 21:20*	*1.00*

Method: 1312/AK102 - Diesel Range Organics (C10-C25) per AK102 on SPLP Extracted Sample - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**0.712**		0.248		mg/l		10/05/11 10:30	10/05/11 14:14	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*83.5*		*50 - 150*	*10/05/11 10:30*	*10/05/11 14:14*	*1.00*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**316**	**Q2 RL1**	39.9		mg/kg dry	☼	09/26/11 10:36	09/28/11 06:50	1.00
Residual Range Organics	ND	RL1	99.7		mg/kg dry	☼	09/26/11 10:36	09/28/11 06:50	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*93.0*		*50 - 150*	*09/26/11 10:36*	*09/28/11 06:50*	*1.00*

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-25

Lab Sample ID: AUI0093-04
Date Collected: 09/18/11 18:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 73.1

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Triacontane	90.3		50 - 150	09/26/11 10:36	09/28/11 06:50	1.00

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**51.6**		3.05		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:42	33.3
Benzene	ND	L2	0.0183		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:42	33.3
Toluene	**0.176**	**L2 R1**	0.0367		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:42	33.3
Ethylbenzene	**0.236**	**C4 L2**	0.0367		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:42	33.3
Xylenes (total)	**0.974**	**C4 L2 N1**	0.110		mg/kg dry	☼	09/29/11 16:50	09/30/11 00:42	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	245	Z6	50 - 150	09/29/11 16:50	09/30/11 00:42	33.3
a,a,a-TFT (FID)	113		50 - 150	09/29/11 16:50	09/30/11 00:42	33.3
4-BFB (PID)	132		50 - 150	09/29/11 16:50	09/30/11 00:42	33.3
a,a,a-TFT (PID)	106		50 - 150	09/29/11 16:50	09/30/11 00:42	33.3

Client Sample ID: NK-11-SS-26

Lab Sample ID: AUI0093-05
Date Collected: 09/18/11 19:20
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 77

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Acenaphthylene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Anthracene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (a) anthracene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (a) pyrene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (b) fluoranthene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (ghi) perylene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (k) fluoranthene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Chrysene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Dibenzo (a,h) anthracene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Fluoranthene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Fluorene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Indeno (1,2,3-cd) pyrene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Naphthalene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Phenanthrene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00
Pyrene	ND		17.3		ug/kg dry	☼	09/26/11 13:20	09/27/11 21:50	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorene-d10	102		24 - 125	09/26/11 13:20	09/27/11 21:50	1.00
Pyrene-d10	126		41 - 141	09/26/11 13:20	09/27/11 21:50	1.00
Benzo (a) pyrene-d12	102		38 - 143	09/26/11 13:20	09/27/11 21:50	1.00

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		38.9		mg/kg dry	☼	09/26/11 10:36	09/28/11 07:23	1.00
Residual Range Organics	ND		97.3		mg/kg dry	☼	09/26/11 10:36	09/28/11 07:23	1.00

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-26

Lab Sample ID: AUI0093-05

Date Collected: 09/18/11 19:20
Date Received: 09/21/11 09:10

Matrix: Soil
Percent Solids: 77.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	112		50 - 150	09/26/11 10:36	09/28/11 07:23	1.00
Triacontane	102		50 - 150	09/26/11 10:36	09/28/11 07:23	1.00

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.34		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:06	33.3
Benzene	ND	L2	0.0201		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:06	33.3
Toluene	ND	L2	0.0402		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:06	33.3
Ethylbenzene	ND	C4 L2	0.0402		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:06	33.3
Xylenes (total)	ND	C4 L2	0.121		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:06	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	82.9		50 - 150	09/29/11 16:50	09/30/11 01:06	33.3
a,a,a-TFT (FID)	75.0		50 - 150	09/29/11 16:50	09/30/11 01:06	33.3
4-BFB (PID)	81.5		50 - 150	09/29/11 16:50	09/30/11 01:06	33.3
a,a,a-TFT (PID)	78.1		50 - 150	09/29/11 16:50	09/30/11 01:06	33.3

Client Sample ID: NK-11-SS-27

Lab Sample ID: AUI0093-06

Date Collected: 09/18/11 20:30
Date Received: 09/21/11 09:10

Matrix: Soil
Percent Solids: 69

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND	RL1	42.1		mg/kg dry	☼	09/26/11 10:36	09/28/11 07:23	1.00
Residual Range Organics	ND	RL1	105		mg/kg dry	☼	09/26/11 10:36	09/28/11 07:23	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	94.4		50 - 150	09/26/11 10:36	09/28/11 07:23	1.00
Triacontane	91.9		50 - 150	09/26/11 10:36	09/28/11 07:23	1.00

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	**5.98**		3.46		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:31	33.3
Benzene	ND	L2	0.0208		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:31	33.3
Toluene	**0.0451**	**L2 R1**	0.0416		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:31	33.3
Ethylbenzene	**0.103**	**C4 L2**	0.0416		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:31	33.3
Xylenes (total)	**0.380**	**C4 L2**	0.125		mg/kg dry	☼	09/29/11 16:50	09/30/11 01:31	33.3

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	106		50 - 150	09/29/11 16:50	09/30/11 01:31	33.3
a,a,a-TFT (FID)	108		50 - 150	09/29/11 16:50	09/30/11 01:31	33.3
4-BFB (PID)	92.7		50 - 150	09/29/11 16:50	09/30/11 01:31	33.3
a,a,a-TFT (PID)	111		50 - 150	09/29/11 16:50	09/30/11 01:31	33.3

Client Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-TB-03

Date Collected: 09/18/11 17:30
Date Received: 09/21/11 09:10

Lab Sample ID: AUI0093-07

Matrix: Soil
Percent Solids: 100

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:10	33.3
Benzene	ND	L2	0.0200		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:10	33.3
Toluene	ND	L2	0.0400		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:10	33.3
Ethylbenzene	ND	C4 L2	0.0400		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:10	33.3
Xylenes (total)	ND	C4 L2	0.120		mg/kg dry	☼	09/29/11 16:50	09/30/11 05:10	33.3

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*74.3*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:10*	*33.3*
a,a,a-TFT (FID)	*102*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:10*	*33.3*
4-BFB (PID)	*77.0*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:10*	*33.3*
a,a,a-TFT (PID)	*106*		*50 - 150*	*09/29/11 16:50*	*09/30/11 05:10*	*33.3*

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270

Matrix: Soil **Prep Type: SPLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	TBP	NBZ	FBP	TPH
Lab Sample ID	Client Sample ID	(7-116)	(1-114)	(33-150)	(29-140)	(12-135)	(47-138)
11I0921-BLK1	Method Blank	53.5	36.5	95.4	88.6	55.9	92.7
11I0921-BS1	Lab Control Sample	56.6	37.7	98.4	91.0	57.1	93.7
11I0921-MS1	NK-11-SS-23	59.9	40.3	107	97.9	60.1	92.6
AUI0093-02	NK-11-SS-23				90.7	48.9	94.0
AUI0093-04	NK-11-SS-25				98.4	87.0	95.0

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d6
TBP = 2,4,6-Tribromophenol
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = p-Terphenyl-d14

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		FD10	PD10	o (a) pyren
Lab Sample ID	Client Sample ID	(24-125)	(41-141)	(38-143)
11I0732-BLK1	Method Blank	95.1	105	85.6
11I0732-BS1	Lab Control Sample	95.4	101	90.5
11I0732-MS1	Matrix Spike	95.8	105	99.6
11I0732-MSD1	Matrix Spike Duplicate	92.9	99.0	92.5
AUI0093-02	NK-11-SS-23		99.9	101
AUI0093-02	NK-11-SS-23	Z3		
AUI0093-04	NK-11-SS-25	77.9	108	97.0
AUI0093-05	NK-11-SS-26	102	126	102

Surrogate Legend

FD10 = Fluorene-d10
PD10 = Pyrene-d10
Benzo (a) pyrene-d12 = Benzo (a) pyrene-d12

Method: 1312/AK102 - Diesel Range Organics (C10-C25) per AK102 on SPLP Extracted Sample

Matrix: Soil **Prep Type: SPLP**

		Percent Surrogate Recovery (Acceptance Limits)
		1COD
Lab Sample ID	Client Sample ID	(50-150)
11J0105-BLK1	Method Blank	79.9
11J0105-BLK2	Method Blank	80.0
11J0105-BS1	Lab Control Sample	99.9
11J0105-MS1	NK-11-SS-23	98.1
AUI0093-02	NK-11-SS-23	86.2
AUI0093-04	NK-11-SS-25	83.5

Surrogate Legend

1COD = 1-Chlorooctadecane

Surrogate Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		1COD	TC						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
11I0130-BLK1	Method Blank	78.3	76.6						
11I0130-DUP1	Duplicate	96.2	96.4						
11I0130-MS1	Matrix Spike	102	103						
11I0130-MSD1	Matrix Spike Duplicate	102	100						
AUI0093-01	NK-11-SS-22	91.7	83.9						
AUI0093-02	NK-11-SS-23	107	101						
AUI0093-03	NK-11-SS-24	104	96.9						
AUI0093-04	NK-11-SS-25	93.0	90.3						
AUI0093-05	NK-11-SS-26	112	102						
AUI0093-06	NK-11-SS-27	94.4	91.9						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		1COD	TC						
Lab Sample ID	Client Sample ID	(60-120)	(60-120)						
11I0130-BS1	Lab Control Sample	82.1	76.3						
11I0130-BSD1	Lab Control Sample Dup	95.4	89.1						

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	TFT(FID)	4-BFB (PID)	a,a-TFT (PI	4-BFB (PID)	4-BFB (PID)	a,a-TFT (PI	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(60-120)	(50-150)	(60-120)
11I0156-BLK1	Method Blank	73.8	105	78.3	110	78.3		110	
11I0156-DUP1	Duplicate	94.6	82.2	94.9	86.8	94.9		86.8	
11I0156-MS1	Matrix Spike			81.6	77.3	81.6		77.3	
11I0156-MSD1	Matrix Spike Duplicate			73.5	77.2	73.5		77.2	
AUI0093-01	NK-11-SS-22	80.6	18.9 Z6	84.1	20.0 Z6	84.1		20.0 Z6	
AUI0093-02	NK-11-SS-23	327 Z1	184 Z1	139	86.6	139		86.6	
AUI0093-03	NK-11-SS-24	499 Z6	322 Z6	169 Z6	114	169 Z6		114	
AUI0093-04	NK-11-SS-25	245 Z6	113	132	106	132		106	
AUI0093-05	NK-11-SS-26	82.9	75.0	81.5	78.1	81.5		78.1	
AUI0093-06	NK-11-SS-27	106	108	92.7	111	92.7		111	
AUI0093-07	NK-11-TB-03	74.3	102	77.0	106	77.0		106	

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)

TFT(FID) = a,a,a-TFT (FID)

4-BFB (PID) = 4-BFB (PID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (PID)	a,a-TFT (PID)						
Lab Sample ID	**Client Sample ID**	**(60-120)**	**(60-120)**						
11I0156-BS1	Lab Control Sample	70.9	75.4						
11I0156-BSD1	Lab Control Sample Dup	94.2	107						

Surrogate Legend

4-BFB (PID) = 4-BFB (PID)
a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		4-BFB (FID)	TFT(FID)						
Lab Sample ID	**Client Sample ID**	**(60-120)**	**(60-120)**						
11I0156-BS2	Lab Control Sample	86.3	112						
11I0156-BSD2	Lab Control Sample Dup	88.6	117						

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)
TFT(FID) = a,a,a-TFT (FID)

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270

Lab Sample ID: 11I0921-BLK1
Matrix: Soil
Analysis Batch: 11I0921

Client Sample ID: Method Blank
Prep Type: SPLP
Prep Batch: 11I0921_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Acenaphthylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzo (a) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzo (b) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzo (k) fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzo (ghi) perylene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzo (a) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzoic acid	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Benzyl alcohol	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Bis(2-chloroethoxy)methane	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Bis(2-chloroethyl)ether	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Bis(2-chloroisopropyl)ether	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Bis(2-ethylhexyl)phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Bromophenyl phenyl ether	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Chloro-3-methylphenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2-Chloronaphthalene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Chlorophenyl phenyl ether	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2-Chlorophenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Chrysene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Dibenzo (a,h) anthracene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Dibenzofuran	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Di-n-butyl phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
1,2-Dichlorobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
1,3-Dichlorobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
1,4-Dichlorobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
3,3´-Dichlorobenzidine	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4-Dichlorophenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Diethyl phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4-Dimethylphenol	ND		0.100		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Dimethyl phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4,6-Dinitro-2-methylphenol	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4-Dinitrophenol	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4-Dinitrotoluene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,6-Dinitrotoluene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Di-n-octyl phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Fluoranthene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Fluorene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Hexachlorobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Hexachlorobutadiene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Hexachlorocyclopentadiene	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Hexachloroethane	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Isophorone	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2-Methylnaphthalene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Naphthalene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2-Nitroaniline	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
3-Nitroaniline	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Nitroaniline	ND		0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270 (Continued)

Lab Sample ID: 11I0921-BLK1
Matrix: Soil
Analysis Batch: 11I0921

Client Sample ID: Method Blank
Prep Type: SPLP
Prep Batch: 11I0921_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2-Nitrophenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Nitrophenol	ND	C	0.200		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
N-Nitrosodiphenylamine	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
N-Nitrosodi-n-propylamine	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Pentachlorophenol	ND		0.100		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Phenanthrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Phenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Pyrene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Total Cresols	ND		0.100		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
1,2,4-Trichlorobenzene	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4,5-Trichlorophenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
2,4,6-Trichlorophenol	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
Butyl benzyl phthalate	ND		0.0500		mg/l		09/30/11 13:00	10/03/11 15:00	1.00
4-Chloroaniline	ND		0.100		mg/l		09/30/11 13:00	10/03/11 15:00	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*53.5*		*7 - 116*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*
Phenol-d6	*36.5*		*1 - 114*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*
2,4,6-Tribromophenol	*95.4*		*33 - 150*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*
Nitrobenzene-d5	*88.6*		*29 - 140*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*
2-Fluorobiphenyl	*55.9*		*12 - 135*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*
p-Terphenyl-d14	*92.7*		*47 - 138*	*09/30/11 13:00*	*10/03/11 15:00*	*1.00*

Lab Sample ID: 11I0921-BS1
Matrix: Soil
Analysis Batch: 11I0921

Client Sample ID: Lab Control Sample
Prep Type: SPLP
Prep Batch: 11I0921_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dichlorobenzene	0.400	0.229		mg/l		57.3	10 - 105
2,4-Dinitrotoluene	0.400	0.372		mg/l		93.0	40 - 130
Hexachlorobenzene	0.400	0.264		mg/l		66.0	40 - 125
Hexachlorobutadiene	0.400	0.218		mg/l		54.4	10 - 150
Hexachloroethane	0.400	0.214		mg/l		53.6	10 - 135
Nitrobenzene	0.400	0.370		mg/l		92.6	30 - 130
Pentachlorophenol	0.400	0.309		mg/l		77.2	40 - 135
Total Cresols	1.20	0.914		mg/l		76.2	10 - 120
2,4,5-Trichlorophenol	0.400	0.345		mg/l		86.4	45 - 130
2,4,6-Trichlorophenol	0.400	0.333		mg/l		83.2	35 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*56.6*		*7 - 116*
Phenol-d6	*37.7*		*1 - 114*
2,4,6-Tribromophenol	*98.4*		*33 - 150*
Nitrobenzene-d5	*91.0*		*29 - 140*
2-Fluorobiphenyl	*57.1*		*12 - 135*
p-Terphenyl-d14	*93.7*		*47 - 138*

Method: 1312/8270 - SPLP Semivolatiles per EPA Method 1312/8270 (Continued)

Lab Sample ID: 11I0921-MS1 | **Client Sample ID: NK-11-SS-23**
Matrix: Soil | **Prep Type: SPLP**
Analysis Batch: 11I0921 | **Prep Batch: 11I0921_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dichlorobenzene	ND		0.400	0.275		mg/l		68.8	14 - 100
2,4-Dinitrotoluene	ND		0.400	0.399		mg/l		99.8	35 - 135
Hexachlorobenzene	ND		0.400	0.264		mg/l		66.1	35 - 130
Hexachlorobutadiene	ND		0.400	0.280		mg/l		70.0	10 - 125
Hexachloroethane	ND		0.400	0.300		mg/l		75.0	10 - 120
Nitrobenzene	ND		0.400	0.403		mg/l		101	10 - 150
Pentachlorophenol	ND		0.400	0.332		mg/l		82.9	15 - 150
Total Cresols	ND		1.20	0.949		mg/l		79.1	10 - 135
2,4,5-Trichlorophenol	ND		0.400	0.353		mg/l		88.2	40 - 135
2,4,6-Trichlorophenol	ND		0.400	0.346		mg/l		86.6	30 - 135

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
2-Fluorophenol	*59.9*		*7 - 116*
Phenol-d6	*40.3*		*1 - 114*
2,4,6-Tribromophenol	*107*		*33 - 150*
Nitrobenzene-d5	*97.9*		*29 - 140*
2-Fluorobiphenyl	*60.1*		*12 - 135*
p-Terphenyl-d14	*92.6*		*47 - 138*

Method: EPA 1312 - SPLP Extraction only

Lab Sample ID: 11I0872-BLK1 | **Client Sample ID: Method Blank**
Matrix: Soil | **Prep Type: SPLP**
Analysis Batch: 11I0872 | **Prep Batch: 11I0872_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Extraction	ND		1.00		N/A		09/28/11 23:21	09/29/11 15:30	1.00

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Lab Sample ID: 11I0732-BLK1 | **Client Sample ID: Method Blank**
Matrix: Soil | **Prep Type: Total**
Analysis Batch: 11I0732 | **Prep Batch: 11I0732_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Acenaphthylene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Anthracene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Benzo (a) anthracene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Benzo (a) pyrene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Benzo (b) fluoranthene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Benzo (ghi) perylene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Benzo (k) fluoranthene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Chrysene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Dibenzo (a,h) anthracene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Fluoranthene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Fluorene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Indeno (1,2,3-cd) pyrene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Naphthalene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

Lab Sample ID: 11I0732-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0732 — **Prep Batch: 11I0732_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00
Pyrene	ND		13.2		ug/kg wet		09/26/11 07:01	09/26/11 19:07	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorene-d10	*95.1*		*24 - 125*	*09/26/11 07:01*	*09/26/11 19:07*	*1.00*
Pyrene-d10	*105*		*41 - 141*	*09/26/11 07:01*	*09/26/11 19:07*	*1.00*
Benzo (a) pyrene-d12	*85.6*		*38 - 143*	*09/26/11 07:01*	*09/26/11 19:07*	*1.00*

Lab Sample ID: 11I0732-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0732 — **Prep Batch: 11I0732_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Acenaphthene			165	145		ug/kg wet		88.1	33 - 139		
Benzo (a) pyrene			165	144		ug/kg wet		87.2	45 - 149		
Pyrene			165	159		ug/kg wet		96.6	39 - 138		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Fluorene-d10	*95.4*		*24 - 125*
Pyrene-d10	*101*		*41 - 141*
Benzo (a) pyrene-d12	*90.5*		*38 - 143*

Lab Sample ID: 11I0732-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0732 — **Prep Batch: 11I0732_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Acenaphthene	ND		196	152		ug/kg dry	☼	77.7	33 - 139		
Benzo (a) pyrene	ND		196	163		ug/kg dry	☼	83.2	45 - 149		
Pyrene	ND		196	172		ug/kg dry	☼	87.6	39 - 138		

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
Fluorene-d10	*95.8*		*24 - 125*
Pyrene-d10	*105*		*41 - 141*
Benzo (a) pyrene-d12	*99.6*		*38 - 143*

Lab Sample ID: 11I0732-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0732 — **Prep Batch: 11I0732_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		197	165		ug/kg dry	☼	83.5	33 - 139	7.97	40
Benzo (a) pyrene	ND		197	172		ug/kg dry	☼	87.0	45 - 149	5.13	40
Pyrene	ND		197	181		ug/kg dry	☼	91.9	39 - 138	5.49	40

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Fluorene-d10	*92.9*		*24 - 125*
Pyrene-d10	*99.0*		*41 - 141*

Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

Lab Sample ID: 11I0732-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11I0732 — **Prep Batch: 11I0732_P**

Surrogate	Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Limits
Benzo (a) pyrene-d12	92.5		38 - 143

Method: 1312/AK102 - Diesel Range Organics (C10-C25) per AK102 on SPLP Extracted Sample

Lab Sample ID: 11J0105-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: SPLP**
Analysis Batch: 11J0105 — **Prep Batch: 11J0105_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.250		mg/l		10/05/11 10:30	10/05/11 12:50	1.00

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	79.9		50 - 150	10/05/11 10:30	10/05/11 12:50	1.00

Lab Sample ID: 11J0105-BLK2 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: SPLP**
Analysis Batch: 11J0105 — **Prep Batch: 11J0105_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.243		mg/l		10/05/11 10:30	10/05/11 13:07	1.00

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	80.0		50 - 150	10/05/11 10:30	10/05/11 13:07	1.00

Lab Sample ID: 11J0105-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: SPLP**
Analysis Batch: 11J0105 — **Prep Batch: 11J0105_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Diesel Range Organics			2.50	2.35		mg/l		93.8	75 - 125		

Surrogate	LCS % Recovery	LCS Qualifier	Limits
1-Chlorooctadecane	99.9		50 - 150

Lab Sample ID: 11J0105-MS1 — **Client Sample ID: NK-11-SS-23**
Matrix: Soil — **Prep Type: SPLP**
Analysis Batch: 11J0105 — **Prep Batch: 11J0105_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Diesel Range Organics	4.55		2.50	34.2	MHA	mg/l		1180	75 - 125		

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
1-Chlorooctadecane	98.1		50 - 150

QC Sample Results

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Lab Sample ID: 11I0130-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		20.0		mg/kg wet		09/26/11 10:36	09/26/11 14:48	1.00
Residual Range Organics	ND		50.0		mg/kg wet		09/26/11 10:36	09/26/11 14:48	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*78.3*		*50 - 150*	*09/26/11 10:36*	*09/26/11 14:48*	*1.00*
Triacontane	*76.6*		*50 - 150*	*09/26/11 10:36*	*09/26/11 14:48*	*1.00*

Lab Sample ID: 11I0130-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics	126	97.1		mg/kg wet		76.9	75 - 125
Residual Range Organics	126	93.3		mg/kg wet		73.9	60 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctadecane	*82.1*		*60 - 120*
Triacontane	*76.3*		*60 - 120*

Lab Sample ID: 11I0130-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics	126	99.7		mg/kg wet		79.0	75 - 125	2.62	20
Residual Range Organics	126	102		mg/kg wet		80.7	60 - 120	8.81	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
1-Chlorooctadecane	*95.4*		*60 - 120*
Triacontane	*89.1*		*60 - 120*

Lab Sample ID: 11I0130-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics	1190		220	993	M8 RL7	mg/kg dry	☼	-88.1	75 - 125
Residual Range Organics	ND		220	ND	M8 RL7	mg/kg dry	☼		60 - 120

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
1-Chlorooctadecane	*102*		*50 - 150*
Triacontane	*103*		*50 - 150*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 11I0130-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics	1190		241	1080	M8 RL7	mg/kg dry	☼	-44.0	75 - 125	8.48	25
Residual Range Organics	ND		241	ND	M8 RL7	mg/kg dry	☼		60 - 120		25

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1-Chlorooctadecane	*102*		*50 - 150*
Triacontane	*100*		*50 - 150*

Lab Sample ID: 11I0130-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000757 — **Prep Batch: 11I0130_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Organics	1190			977	RL7	mg/kg dry	☼			19.4	20
Residual Range Organics	ND			ND	RL7	mg/kg dry	☼				50

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
1-Chlorooctadecane	*96.2*		*50 - 150*
Triacontane	*96.4*		*50 - 150*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Lab Sample ID: 11I0156-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		3.33		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Benzene	ND		0.0200		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Toluene	ND		0.0400		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Ethylbenzene	ND	C4	0.0400		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3
Xylenes (total)	ND	C4	0.120		mg/kg wet		09/29/11 16:50	09/29/11 19:00	33.3

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*73.8*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
a,a,a-TFT (FID)	*105*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
4-BFB (PID)	*78.3*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*
a,a,a-TFT (PID)	*110*		*50 - 150*	*09/29/11 16:50*	*09/29/11 19:00*	*33.3*

Lab Sample ID: 11I0156-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			0.800	0.500	L2	mg/kg wet		62.5	70 - 130		
Toluene			0.800	0.471	L2	mg/kg wet		58.9	70 - 130		
Ethylbenzene			0.800	0.460	L2 C4	mg/kg wet		57.5	70 - 130		
Xylenes (total)			2.40	1.42	L2 C4	mg/kg wet		59.1	70 - 130		

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0156-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Surrogate	LCS % Recovery	LCS Qualifier	Limits
4-BFB (PID)	70.9		60 - 120
a,a,a-TFT (PID)	75.4		60 - 120

Lab Sample ID: 11I0156-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			20.0	16.6		mg/kg wet		83.2	60 - 120		

Surrogate	LCS % Recovery	LCS Qualifier	Limits
4-BFB (FID)	86.3		60 - 120
a,a,a-TFT (FID)	112		60 - 120

Lab Sample ID: 11I0156-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			0.800	0.691	R2	mg/kg wet		86.4	70 - 130	32.0	20
Toluene			0.800	0.667	R2	mg/kg wet		83.3	70 - 130	34.4	20
Ethylbenzene			0.800	0.616	R2 C4	mg/kg wet		77.0	70 - 130	29.1	20
Xylenes (total)			2.40	1.82	R2 C4	mg/kg wet		76.0	70 - 130	25.1	20

Surrogate	LCS Dup % Recovery	LCS Dup Qualifier	Limits
4-BFB (PID)	94.2		60 - 120
a,a,a-TFT (PID)	107		60 - 120

Lab Sample ID: 11I0156-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			20.0	17.5		mg/kg wet		87.4	60 - 120	4.87	20

Surrogate	LCS Dup % Recovery	LCS Dup Qualifier	Limits
4-BFB (FID)	88.6		60 - 120
a,a,a-TFT (FID)	117		60 - 120

Lab Sample ID: 11I0156-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: U000797 — **Prep Batch: 11I0156_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene	ND		0.392	0.723	M7	mg/kg dry	☼	184	60 - 140		
Toluene	ND		0.392	0.697	M7	mg/kg dry	☼	178	60 - 140		
Ethylbenzene	ND		0.392	0.644	C4 M7	mg/kg dry	☼	164	60 - 140		
Xylenes (total)	0.0514		1.18	1.90	C4 M7	mg/kg dry	☼	157	60 - 140		

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 11I0156-MS1
Matrix: Soil
Analysis Batch: U000797

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 11I0156_P

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
4-BFB (PID)	81.6		50 - 150
a,a,a-TFT (PID)	77.3		50 - 150

Lab Sample ID: 11I0156-MSD1
Matrix: Soil
Analysis Batch: U000797

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11I0156_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	ND		0.392	0.712	M7	mg/kg dry	☼	182	60 - 140	1.52	30
Toluene	ND		0.392	0.683	M7	mg/kg dry	☼	174	60 - 140	2.08	30
Ethylbenzene	ND		0.392	0.633	C4 M7	mg/kg dry	☼	161	60 - 140	1.83	30
Xylenes (total)	0.0514		1.18	1.86	C4 M7	mg/kg dry	☼	153	60 - 140	2.36	30

Surrogate	Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Limits
4-BFB (PID)	73.5		50 - 150
a,a,a-TFT (PID)	77.2		50 - 150

Lab Sample ID: 11I0156-DUP1
Matrix: Soil
Analysis Batch: U000797

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 11I0156_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	0.676			0.518	R4	mg/kg dry	☼			26.5	20
Benzene	ND			ND		mg/kg dry	☼				20
Toluene	ND			ND		mg/kg dry	☼				20
Ethylbenzene	ND			ND	C4	mg/kg dry	☼				20
Xylenes (total)	0.0514			0.0326	C4	mg/kg dry	☼			44.7	20

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
4-BFB (FID)	94.6		50 - 150
a,a,a-TFT (FID)	82.2		50 - 150
4-BFB (PID)	94.9		50 - 150
a,a,a-TFT (PID)	86.8		50 - 150

QC Association Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Semivolatiles

Analysis Batch: 11I0732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0732-BLK1	Method Blank	Total	Soil	EPA 8270m	11I0732_P
11I0732-BS1	Lab Control Sample	Total	Soil	EPA 8270m	11I0732_P
11I0732-MS1	Matrix Spike	Total	Soil	EPA 8270m	11I0732_P
11I0732-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 8270m	11I0732_P
AUI0093-02	NK-11-SS-23	Total	Soil	EPA 8270m	11I0732_P
AUI0093-04	NK-11-SS-25	Total	Soil	EPA 8270m	11I0732_P
AUI0093-05	NK-11-SS-26	Total	Soil	EPA 8270m	11I0732_P

Analysis Batch: 11I0872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0872-BLK1	Method Blank	SPLP	Soil	EPA 1312	11I0872_P
AUI0093-02	NK-11-SS-23	SPLP	Soil	TCLP Extraction	
AUI0093-02	NK-11-SS-23	SPLP	Soil	EPA 1312	11I0872_P
AUI0093-04	NK-11-SS-25	SPLP	Soil	TCLP Extraction	
AUI0093-04	NK-11-SS-25	SPLP	Soil	EPA 1312	11I0872_P

Analysis Batch: 11I0921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0921-BLK1	Method Blank	SPLP	Soil	1312/8270	11I0921_P
11I0921-BS1	Lab Control Sample	SPLP	Soil	1312/8270	11I0921_P
11I0921-MS1	NK-11-SS-23	SPLP	Soil	1312/8270	11I0921_P
AUI0093-02	NK-11-SS-23	SPLP	Soil	1312/8270	11I0921_P
AUI0093-04	NK-11-SS-25	SPLP	Soil	1312/8270	11I0921_P

Prep Batch: 11I0732_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0732-BLK1	Method Blank	Total	Soil	EPA 3550	
11I0732-BS1	Lab Control Sample	Total	Soil	EPA 3550	
11I0732-MS1	Matrix Spike	Total	Soil	EPA 3550	
11I0732-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550	
AUI0093-02	NK-11-SS-23	Total	Soil	EPA 3550	
AUI0093-04	NK-11-SS-25	Total	Soil	EPA 3550	
AUI0093-05	NK-11-SS-26	Total	Soil	EPA 3550	

Prep Batch: 11I0872_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0872-BLK1	Method Blank	SPLP	Soil	EPA 1311	
AUI0093-02	NK-11-SS-23	SPLP	Soil	EPA 1311	11I0872
AUI0093-04	NK-11-SS-25	SPLP	Soil	EPA 1311	11I0872

Prep Batch: 11I0921_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0921-BLK1	Method Blank	SPLP	Soil	EPA 1311/3510	
11I0921-BS1	Lab Control Sample	SPLP	Soil	EPA 1311/3510	
11I0921-MS1	NK-11-SS-23	SPLP	Soil	EPA 1311/3510	
AUI0093-02	NK-11-SS-23	SPLP	Soil	EPA 1311/3510	11I0872
AUI0093-04	NK-11-SS-25	SPLP	Soil	EPA 1311/3510	11I0872

QC Association Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Fuels

Analysis Batch: 11I0127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0127-DUP1	Duplicate	Total	Soil	TA-SOP	11I0127_P
AUI0093-01	NK-11-SS-22	Total	Soil	TA-SOP	11I0127_P
AUI0093-02	NK-11-SS-23	Total	Soil	TA-SOP	11I0127_P
AUI0093-03	NK-11-SS-24	Total	Soil	TA-SOP	11I0127_P
AUI0093-04	NK-11-SS-25	Total	Soil	TA-SOP	11I0127_P
AUI0093-05	NK-11-SS-26	Total	Soil	TA-SOP	11I0127_P
AUI0093-06	NK-11-SS-27	Total	Soil	TA-SOP	11I0127_P
AUI0093-07	NK-11-TB-03	Total	Soil	TA-SOP	11I0127_P

Pre prep Batch: 11I0872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0093-02	NK-11-SS-23	SPLP	Soil	TCLP Extraction	
AUI0093-04	NK-11-SS-25	SPLP	Soil	TCLP Extraction	

Analysis Batch: 11J0105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11J0105-BLK1	Method Blank	SPLP	Soil	1312/AK102	11J0105_P
11J0105-BLK2	Method Blank	SPLP	Soil	1312/AK102	11J0105_P
11J0105-BS1	Lab Control Sample	SPLP	Soil	1312/AK102	11J0105_P
11J0105-MS1	NK-11-SS-23	SPLP	Soil	1312/AK102	11J0105_P
AUI0093-02	NK-11-SS-23	SPLP	Soil	1312/AK102	11J0105_P
AUI0093-04	NK-11-SS-25	SPLP	Soil	1312/AK102	11J0105_P

Analysis Batch: U000757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0130-BLK1	Method Blank	Total	Soil	AK102/103	11I0130_P
11I0130-BS1	Lab Control Sample	Total	Soil	AK102/103	11I0130_P
11I0130-BSD1	Lab Control Sample Dup	Total	Soil	AK102/103	11I0130_P
11I0130-DUP1	Duplicate	Total	Soil	AK102/103	11I0130_P
11I0130-MS1	Matrix Spike	Total	Soil	AK102/103	11I0130_P
11I0130-MSD1	Matrix Spike Duplicate	Total	Soil	AK102/103	11I0130_P

Analysis Batch: U000763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0093-01	NK-11-SS-22	Total	Soil	AK102/103	11I0130_P
AUI0093-05	NK-11-SS-26	Total	Soil	AK102/103	11I0130_P

Analysis Batch: U000764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0093-04	NK-11-SS-25	Total	Soil	AK102/103	11I0130_P
AUI0093-06	NK-11-SS-27	Total	Soil	AK102/103	11I0130_P

Analysis Batch: U000768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0093-02	NK-11-SS-23	Total	Soil	AK102/103	11I0130_P

Analysis Batch: U000769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
AUI0093-03	NK-11-SS-24	Total	Soil	AK102/103	11I0130_P

Fuels (Continued)

Prep Batch: 11I0127_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0127-DUP1	Duplicate	Total	Soil	*** DEFAULT PREP ***	
AUI0093-01	NK-11-SS-22	Total	Soil	*** DEFAULT PREP ***	
AUI0093-02	NK-11-SS-23	Total	Soil	*** DEFAULT PREP ***	
AUI0093-03	NK-11-SS-24	Total	Soil	*** DEFAULT PREP ***	
AUI0093-04	NK-11-SS-25	Total	Soil	*** DEFAULT PREP ***	
AUI0093-05	NK-11-SS-26	Total	Soil	*** DEFAULT PREP ***	
AUI0093-06	NK-11-SS-27	Total	Soil	*** DEFAULT PREP ***	
AUI0093-07	NK-11-TB-03	Total	Soil	*** DEFAULT PREP ***	

Prep Batch: 11I0130_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0130-BLK1	Method Blank	Total	Soil	EPA 3545	
11I0130-BS1	Lab Control Sample	Total	Soil	EPA 3545	
11I0130-BSD1	Lab Control Sample Dup	Total	Soil	EPA 3545	
11I0130-DUP1	Duplicate	Total	Soil	EPA 3545	
11I0130-MS1	Matrix Spike	Total	Soil	EPA 3545	
11I0130-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3545	
AUI0093-01	NK-11-SS-22	Total	Soil	EPA 3545	
AUI0093-02	NK-11-SS-23	Total	Soil	EPA 3545	
AUI0093-03	NK-11-SS-24	Total	Soil	EPA 3545	
AUI0093-04	NK-11-SS-25	Total	Soil	EPA 3545	
AUI0093-05	NK-11-SS-26	Total	Soil	EPA 3545	
AUI0093-06	NK-11-SS-27	Total	Soil	EPA 3545	

Prep Batch: 11J0105_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11J0105-BLK1	Method Blank	SPLP	Soil	EPA 1312/3510 Fuels	
11J0105-BLK2	Method Blank	SPLP	Soil	EPA 1312/3510 Fuels	
11J0105-BS1	Lab Control Sample	SPLP	Soil	EPA 1312/3510 Fuels	
11J0105-MS1	NK-11-SS-23	SPLP	Soil	EPA 1312/3510 Fuels	
AUI0093-02	NK-11-SS-23	SPLP	Soil	EPA 1312/3510 Fuels	11I0872
AUI0093-04	NK-11-SS-25	SPLP	Soil	EPA 1312/3510 Fuels	11I0872

GC Volatiles

Analysis Batch: U000797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-BLK1	Method Blank	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BS1	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0156_P

GC Volatiles (Continued)

Analysis Batch: U000797 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-BS2	Lab Control Sample	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BSD1	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-BSD2	Lab Control Sample Dup	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-DUP1	Duplicate	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-MS1	Matrix Spike	Total	Soil	AK101/EPA 8021B	11I0156_P
11I0156-MSD1	Matrix Spike Duplicate	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-01	NK-11-SS-22	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-02	NK-11-SS-23	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-03	NK-11-SS-24	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-04	NK-11-SS-25	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-05	NK-11-SS-26	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-06	NK-11-SS-27	Total	Soil	AK101/EPA 8021B	11I0156_P
AUI0093-07	NK-11-TB-03	Total	Soil	AK101/EPA 8021B	11I0156_P

Prep Batch: 11I0156_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0156-BLK1	Method Blank	Total	Soil	AK101 Field Prep	
11I0156-BS1	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0156-BS2	Lab Control Sample	Total	Soil	AK101 Field Prep	
11I0156-BSD1	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0156-BSD2	Lab Control Sample Dup	Total	Soil	AK101 Field Prep	
11I0156-DUP1	Duplicate	Total	Soil	AK101 Field Prep	
11I0156-MS1	Matrix Spike	Total	Soil	AK101 Field Prep	
11I0156-MSD1	Matrix Spike Duplicate	Total	Soil	AK101 Field Prep	
AUI0093-01	NK-11-SS-22	Total	Soil	AK101 Field Prep	
AUI0093-02	NK-11-SS-23	Total	Soil	AK101 Field Prep	
AUI0093-03	NK-11-SS-24	Total	Soil	AK101 Field Prep	
AUI0093-04	NK-11-SS-25	Total	Soil	AK101 Field Prep	
AUI0093-05	NK-11-SS-26	Total	Soil	AK101 Field Prep	
AUI0093-06	NK-11-SS-27	Total	Soil	AK101 Field Prep	
AUI0093-07	NK-11-TB-03	Total	Soil	AK101 Field Prep	

QC Association Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Sample Control

Analysis Batch: 11I0677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0677-DUP1	Duplicate	Total	Soil	ASTM D2216-80	11I0677_P
AUI0093-02	NK-11-SS-23	Total	Soil	ASTM D2216-80	11I0677_P
AUI0093-04	NK-11-SS-25	Total	Soil	ASTM D2216-80	11I0677_P
AUI0093-05	NK-11-SS-26	Total	Soil	ASTM D2216-80	11I0677_P

Prep Batch: 11I0677_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0677-DUP1	Duplicate	Total	Soil	Dry Weight	
AUI0093-02	NK-11-SS-23	Total	Soil	Dry Weight	
AUI0093-04	NK-11-SS-25	Total	Soil	Dry Weight	
AUI0093-05	NK-11-SS-26	Total	Soil	Dry Weight	

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-22 — Lab Sample ID: AUI0093-01

Date Collected: 09/18/11 17:45 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 63.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3545		1.61	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000763	09/28/11 06:17	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
Total	Prep	AK101 Field Prep		0.506	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/29/11 22:40	DEB	TAL ANC

Client Sample ID: NK-11-SS-23 — Lab Sample ID: AUI0093-02

Date Collected: 09/18/11 18:15 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 77.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550		0.994	11I0732_P	09/26/11 13:20	NCB	TAL PTL
Total	Analysis	EPA 8270m		1.00	11I0732	09/27/11 20:50	NAF	TAL PTL
Total	Analysis	EPA 8270m		50.0	11I0732	09/28/11 13:07	NAF	TAL PTL
SPLP	Pre prep	TCLP Extraction		1.00	11I0872	09/28/11 23:21	PJH	TAL PTL
SPLP	Prep	EPA 1311/3510		1.00	11I0921_P	09/30/11 13:00	CAD	TAL PTL
SPLP	Analysis	1312/8270		1.00	11I0921	10/03/11 20:10	DTH	TAL PTL
SPLP	Prep	EPA 1311		1.00	11I0872_P	09/28/11 23:21	PJH	TAL PTL
SPLP	Analysis	EPA 1312		1.00	11I0872	09/29/11 15:30	PJH	TAL PTL
Total	Prep	EPA 3545		1.46	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		20.0	U000768	09/28/11 20:40	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
SPLP	Pre prep	TCLP Extraction		1.00	11I0872	09/28/11 23:21	PJH	TAL PTL
SPLP	Prep	EPA 1312/3510 Fuels		1.00	11J0105_P	10/05/11 10:30	CAD	TAL PTL
SPLP	Analysis	1312/AK102		1.00	11J0105	10/05/11 13:57	NMI	TAL PTL
Total	Prep	AK101 Field Prep		0.404	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/29/11 23:53	MS	TAL ANC
Total	Prep	Dry Weight		1.00	11I0677_P	09/23/11 14:40	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11I0677	09/26/11 08:00	JJM	TAL PTL

Client Sample ID: NK-11-SS-24 — Lab Sample ID: AUI0093-03

Date Collected: 09/18/11 18:30 — **Matrix: Soil**
Date Received: 09/21/11 09:10 — **Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3545		1.01	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		20.0	U000769	09/28/11 20:40	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
Total	Prep	AK101 Field Prep		0.397	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 00:18	MS	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-25

Lab Sample ID: AUI0093-04

Date Collected: 09/18/11 18:45
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 73.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550		0.984	11I0732_P	09/26/11 13:20	NCB	TAL PTL
Total	Analysis	EPA 8270m		1.00	11I0732	09/27/11 21:20	NAF	TAL PTL
Total	Analysis	EPA 8270m		10.0	11I0732	09/28/11 13:38	NAF	TAL PTL
SPLP	Pre prep	TCLP Extraction		1.00	11I0872	09/28/11 23:21	PJH	TAL PTL
SPLP	Prep	EPA 1311/3510		1.00	11I0921_P	09/30/11 13:00	CAD	TAL PTL
SPLP	Analysis	1312/8270		1.00	11I0921	10/03/11 20:55	DTH	TAL PTL
SPLP	Prep	EPA 1311		1.00	11I0872_P	09/28/11 23:21	PJH	TAL PTL
SPLP	Analysis	EPA 1312		1.00	11I0872	09/29/11 15:30	PJH	TAL PTL
Total	Prep	EPA 3545		1.46	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000764	09/28/11 06:50	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
SPLP	Pre prep	TCLP Extraction		1.00	11I0872	09/28/11 23:21	PJH	TAL PTL
SPLP	Prep	EPA 1312/3510 Fuels		0.990	11J0105_P	10/05/11 10:30	CAD	TAL PTL
SPLP	Analysis	1312/AK102		1.00	11J0105	10/05/11 14:14	NMI	TAL PTL
Total	Prep	AK101 Field Prep		0.401	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 00:42	DEB	TAL ANC
Total	Prep	Dry Weight		1.00	11I0677_P	09/23/11 14:40	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11I0677	09/26/11 08:00	JJM	TAL PTL

Client Sample ID: NK-11-SS-26

Lab Sample ID: AUI0093-05

Date Collected: 09/18/11 19:20
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 77

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550		0.993	11I0732_P	09/26/11 13:20	NCB	TAL PTL
Total	Analysis	EPA 8270m		1.00	11I0732	09/27/11 21:50	NAF	TAL PTL
Total	Prep	EPA 3545		1.50	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000763	09/28/11 07:23	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
Total	Prep	AK101 Field Prep		0.549	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 01:06	DEB	TAL ANC
Total	Prep	Dry Weight		1.00	11I0677_P	09/23/11 14:40	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11I0677	09/26/11 08:00	JJM	TAL PTL

Client Sample ID: NK-11-SS-27

Lab Sample ID: AUI0093-06

Date Collected: 09/18/11 20:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3545		1.45	11I0130_P	09/26/11 10:36	DEB	TAL ANC
Total	Analysis	AK102/103		1.00	U000764	09/28/11 07:23	DEB	TAL ANC
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC

Lab Chronicle

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Client Sample ID: NK-11-SS-27

Lab Sample ID: AUI0093-06

Date Collected: 09/18/11 20:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 69

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	AK101 Field Prep		0.407	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 01:31	DEB	TAL ANC

Client Sample ID: NK-11-TB-03

Lab Sample ID: AUI0093-07

Date Collected: 09/18/11 17:30
Matrix: Soil
Date Received: 09/21/11 09:10
Percent Solids: 100

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	*** DEFAULT PREP ***		1.00	11I0127_P	09/25/11 12:40	DEB	TAL ANC
Total	Analysis	TA-SOP		1.00	11I0127	09/26/11 07:50	JMG	TAL ANC
Total	Prep	AK101 Field Prep		1.00	11I0156_P	09/29/11 16:50	JJB	TAL ANC
Total	Analysis	AK101/EPA 8021B		33.3	U000797	09/30/11 05:10	DEB	TAL ANC

Laboratory References:
TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200
TAL PTL = TestAmerica Portland, 9405 SW Nimbus Avenue, Beaverton, OR/USA 97008, TEL (503) 906-9200

Certification Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Anchorage	Alaska	Alaska UST	10	UST-067
TestAmerica Anchorage	Alaska	State Program	10	AK00975
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Method	Method Description	Protocol	Laboratory
1312/8270	SPLP Semivolatiles per EPA Method 1312/8270		TAL PTL
EPA 1312	SPLP Extraction only		TAL PTL
EPA 8270m	Polynuclear Aromatic Compounds per EPA 8270M-SIM		TAL PTL
1312/AK102	Diesel Range Organics (C10-C25) per AK102 on SPLP Extracted Sample		TAL PTL
AK102/103	Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO		TAL ANC
TA-SOP	Physical Parameters by APHA/ASTM/EPA Methods		TAL ANC
AK101/EPA 8021B	Gasoline Range Organics (C6-C10) and BTEX per AK101		TAL ANC
ASTM D2216-80	Percent Dry Weight (Solids) per ASTM D2216-80		TAL PTL

Protocol References:

Laboratory References:

TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Avenue, Beaverton, OR/USA 97008, TEL (503) 906-9200

Sample Summary

Client: Oasis Environmental, Inc.
Project/Site: 658-002

TestAmerica Job ID: AUI0093

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
AUI0093-01	NK-11-SS-22	Soil	09/18/11 17:45	09/21/11 09:10
AUI0093-02	NK-11-SS-23	Soil	09/18/11 18:15	09/21/11 09:10
AUI0093-03	NK-11-SS-24	Soil	09/18/11 18:30	09/21/11 09:10
AUI0093-04	NK-11-SS-25	Soil	09/18/11 18:45	09/21/11 09:10
AUI0093-05	NK-11-SS-26	Soil	09/18/11 19:20	09/21/11 09:10
AUI0093-06	NK-11-SS-27	Soil	09/18/11 20:30	09/21/11 09:10
AUI0093-07	NK-11-TB-03	Soil	09/18/11 17:30	09/21/11 09:10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210 ☒

CHAIN OF CUSTODY REPORT

Work Order #: AVI0093

CLIENT: LKSD

REPORT TO: OASIS Environmental
ADDRESS: 825 W 8th Ave
Anchorage, AK 99501
PHONE: 258-4880 FAX: L.Nicholson@oasisenviro.com

INVOICE TO: OASIS
825 W 8th Ave
Anchorage, AK 99501

P.O. NUMBER:

PROJECT NAME: LKSD
PROJECT NUMBER: 658-002
SAMPLED BY: EB/SC

TURNAROUND REQUEST
in Business Days *

Organic & Inorganic Analyses: ☒ 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

PRESERVATIVE: — | MeOH | — | —

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO/RRO	GRO/BTEX	PAH	SPLP									MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	NK-11-SS-22	9/18/11 17:45	X	X											S	2		01
2	NK-11-SS-23	18:15	X	X	X	X										3		02
3	NK-11-SS-24	18:30	X	X												2		03
4	NK-11-SS-25	18:45	X	X	X	X										3		04
5	NK-11-SS-26	19:20	X	X	X											2		05
6	NK-11-SS-27	20:30	X	X												2		06
7	NK-11-TB-03	17:30		X												1		07
8																		
9																		
10																		

RELEASED BY: Eric Boyette
PRINT NAME: Eric Boyette FIRM: OASIS DATE: 9/21/11 TIME: 09:00

RECEIVED BY: Sara Foster
PRINT NAME: Sara Foster FIRM: TA ANC DATE: 9/21/11 TIME: 0910

RELEASED BY:
PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 1) 6.6 ~~2)~~ cooler 5.9
2) 6.5 cooler 5.8

PAGE 1 OF

TAL-1000(0408)

AUI0080 & 93 arrived in same cooler Volatiles

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # AUI0093 CLIENT: Oasis PROJECT [redacted] LKSD

Date /Time Cooler Arrived 9 / 21 / 11 09:10 Cooler signed for by: Sara Foster (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ___/___/___

Cooler opened by (print) Sara Foster (sign) [signature]

1. Delivered by ☐ALASKA AIRLINES ☐Fed-Ex ☐UPS ☐NAC ☐LYNDEN ☒CLIENT ☐Other: ___

Shipment Tracking # if applicable ___ (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ___ Date ___/___/___

Were custody seals unbroken and intact on arrival? ☐Yes ☐No N/A

3. Were custody papers sealed in a plastic bag? ☒Yes ☐No
4. Were custody papers filled out properly (ink, signed, etc.)? ☒Yes ☐No
5. Did you sign the custody papers in the appropriate place? ☒Yes ☐No
6. Was ice used? ☒Yes ☐No Type of ice: ☐blue ice ☒gel ice ☒real ice ☐dry ice Condition of Ice: OK

Temperature 6.6 °C (corrected) Thermometer # 5
cooler 5.9 °C

7. Packing in Cooler: ☒bubble wrap ☐styrofoam ☐cardboard ☐Other: ___
8. Did samples arrive in plastic bags? ☒Yes ☐No
9. Did all bottles arrive unbroken, and with labels in good condition? ☒Yes ☐No
10. Are all bottle labels complete (ID, date, time, etc.) ☒Yes ☐No
11. Do bottle labels and Chain of Custody agree? ☒Yes ☐No
12. Are the containers and preservatives correct for the tests indicated? ☒Yes ☐No
13. Conoco Phillips, Alyeska, BP H2O samples only, pH <2? ☐Yes ☐Yes ☒N/A
14. Is there adequate volume for the tests requested? ☐Yes ☒No
15. Were VOA vials free of bubbles? ☐N/A ☒Yes ☐No

If "NO" which containers contained "head space" or bubbles? ___

16. Are methanol soils immersed in methanol? ☒Yes ☐Yes ☒N/A

PAH H_2O Sample recieved near past hold. Client instructed to run past hold.

Limited volume samples listed on COC

Log-in Phase:

Date of sample log-in 9 / 21 / 11

Samples logged in by (print) Sara Foster (sign) [signature]

1. Was project identifiable from custody papers? ☒Yes ☐No
2. Do Turn Around Times and Due Dates agree? ☒Yes ☐No
3. Was the Project Manager notified of status? ☒Yes ☐No
4. Was the Lab notified of status? ☒Yes ☐No
5. Was the COC scanned and copied? ☒Yes ☐No

AK-FORM-SPL-005 16 August 2011

AVI0080 & 83 arrived in same cooler

nonvolatiles

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ~~AVI0080~~ AVI0093 CLIENT: Oasis PROJECT: ~~ADEC~~ LKSD

Date /Time Cooler Arrived 9 / 21 / 11 09:10 Cooler signed for by: Sara Foster (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ___/___/___

Cooler opened by (print) Sara Foster (sign) Sara Foster

1. Delivered by ☐ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☒ CLIENT ☐ Other: ___

Shipment Tracking # if applicable ___ (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ___ Date ___/___/___

Were custody seals unbroken and intact on arrival? ☐ Yes ☐ No

3. Were custody papers sealed in a plastic bag? ☒ Yes ☐ No
4. Were custody papers filled out properly (ink, signed, etc.)? ☒ Yes ☐ No
5. Did you sign the custody papers in the appropriate place? ☒ Yes ☐ No
6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☒ gel ice ☒ real ice ☐ dry ice Condition of Ice: OK

Temperature 6.5 °C (corrected) Thermometer # 5

7. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☐ cardboard ☐ Other: ___
8. Did samples arrive in plastic bags? ☒ Yes ☐ No
9. Did all bottles arrive unbroken, and with labels in good condition? ☒ Yes ☐ No
10. Are all bottle labels complete (ID, date, time, etc.) ☒ Yes ☐ No
11. Do bottle labels and Chain of Custody agree? ☒ Yes ☐ No
12. Are the containers and preservatives correct for the tests indicated? ☒ Yes ☐ No
13. Conoco Phillips, Alyeska, BP H2O samples only, pH <2? ☐ Yes ☐ Yes ☒ N/A
14. Is there adequate volume for the tests requested? ☒ Yes ☐ No
15. Were VOA vials free of bubbles? ☒ N/A ☐ Yes ☐ No

If "NO" which containers contained "head space" or bubbles? ___

16. Are methanol soils immersed in methanol? ☐ Yes ☐ Yes ☐ N/A

Labels not on jar. Written on lid

PAH samples were subsampled from DRO/RRO jar – subsampled into 2 oz jars & sent to Spokane.

Log-in Phase:

Date of sample log-in 9 / 21 / 11

Samples logged in by (print) Sara Foster (sign) Sara Foster

1. Was project identifiable from custody papers? ☒ Yes ☐ No
2. Do Turn Around Times and Due Dates agree? ☒ Yes ☐ No
3. Was the Project Manager notified of status? ☒ Yes ☐ No
4. Was the Lab notified of status? ☒ Yes ☐ No
5. Was the COC scanned and copied? ☒ Yes ☐ No

AK-FORM-SPL-005 16 August 2011

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Laboratory Data Review Checklist

Completed by:	Melissa Pike		
Title:	Environmental Scientist	Date:	Dec 5, 2011
CS Report Name:	Napaskiak Former BIA School Day Tanks Site Characterization Report	Report Date:	December 2011
Consultant Firm:	OASIS Environmental, Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	AUI0093
ADEC File Number:	2433.38.004	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:

PAH, DRO and SPLP PAH samples were subcontracted from TestAmerica Anchorage to TestAmerica Portland.

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° ± 2° 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:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

Samples arrived in 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:

There were no discrepancies.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability is not affected with respect to the laboratory sample receipt documentation.

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:

c. Were all corrective actions documented?

( ) Yes ( ) No (●) NA (Please explain) Comments:

There were no corrective actions.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality and usability is not affected with respect to the case narrative.

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:

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:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability is not affected with respect to the reported sample results.

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:

iii. If above PQL, what samples are affected? Comments:

NA.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

NA. No results were above the PQL.

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability is not affected with respect to the reported method blank results.

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:

There are no metal or inorganic analyses.

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:

MS/MSD %R were above the limits in BTEX

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:

LCSD RPDs were outside the limits for BTEX

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Refer to QAR for details.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain) Comments:

Data is considered estimated and qualified (JL). Refer to QAR for further details.

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:

Ethylbenzene and total xylene surrogates were below the percent recovery limits. GRO surrogates were above the limits.

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:

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability is somewhat affected with respect to the surrogate results. Refer to QAR for further details.

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:

NA. No samples were above the PQL.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability is not affected with respect to the reported trip blank results.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

Primary NK-11-SS-23 with duplicate NK-11-SS-24

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

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:

GRO (67.8%), Benzene (55.0%), total xylenes (51.8%)

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

◉ Yes ○ No ○ NA (Please explain) Comments:

Data was qualified as estimated (JD).

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

ii. If above PQL, what samples are affected?

Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

iii. Data quality or usability affected? (Please explain.)

Comments:

All sampling equipment was disposable. No decontamination or equipment blank was required.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Comments:

○ Yes ○ No ◉ NA (Please explain)

There were no additional data qualifiers or data flags.

Reset Form

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SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project:	LKSD 658-002 Bio Solids
Client:	Oasis Environmental
SGS Work Order:	1114567

Released by:

Contents:

Note:
Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.

CASE NARRATIVE

Print Date: 9/29/2011

Client Name: Oasis Environmental
Project Name: LKSD 658-002 Bio Solids
Workorder No.: 1114567

Sample Comments

Refer to the sample receipt form for information on sample condition.

Lab Sample ID	Sample Type	Client Sample ID
1055588	* MS	1114657001MS

EP.410.4 - Chemical Oxygen Demand - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

* QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Laboratory Analytical Report

Client: **Oasis Environmental**
825 W 8th Ave Suite 200
Anchorage, AK 99501

Attn: **Stephen Witzmann**
T: (907)258-4880 F:
s.witzmann@oasisenviro.com

Project: **LKSD 658-002 Bio Solids**

Workorder No.: **1114567**

Certification:

This data package is in compliance with the terms and conditions of the contract, both technically and for completeness, unless otherwise noted on the sample data sheet(s) and/or case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory. If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Chuck Homestead

Charles.Homestead@sgs.com
General Manager Alaska

Contents (Bookmarked in PDF):

Print Date: 9/29/2011

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (<http://www.sgs.com/terms_and_conditions.htm>), unless other written agreements have been accepted by both parties.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and AK100001 for NELAP (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6010B, 6020, 7470A, 7471B, 8021B, 8081B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, the National Environmental Laboratory Accreditation Program and other regulatory authorities. The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV	Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 2xDL)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RL	Reporting Limit
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.
All DRO/RRO analyses are integrated per SOP.

SAMPLE SUMMARY

Print Date: 9/29/2011 11:07 am

Client Name: Oasis Environmental
Project Name: LKSD 658-002 Bio Solids
Workorder No.: 1114567

Analytical Methods

Method Description	Analytical Method
Biochemical Oxygen Demand SM18 5210B	SM20 5210B
Chemical Oxygen Demand	EPA 410.4

Sample ID Cross Reference

Lab Sample ID	Client Sample ID
1114567001	11-LKSD-WW_01A
1114567002	11-LKSD-WW_02A
1114567003	11-LKSD-WW_03A
1114567004	11-LKSD-WW_01B
1114567005	11-LKSD-WW_02B
1114567006	11-LKSD-WW_03B

Detectable Results Summary

Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_01A**
SGS Ref. #: 1114567001
Waters Department

Parameter	Result	Units
Chemical Oxygen Demand	1770	mg/L

Client Sample ID: **11-LKSD-WW_02A**
SGS Ref. #: 1114567002
Waters Department

Parameter	Result	Units
Chemical Oxygen Demand	972	mg/L

Client Sample ID: **11-LKSD-WW_03A**
SGS Ref. #: 1114567003
Waters Department

Parameter	Result	Units
Chemical Oxygen Demand	1380	mg/L

Client Sample ID: **11-LKSD-WW_01B**
SGS Ref. #: 1114567004
Microbiology Laboratory

Parameter	Result	Units
Biochemical Oxygen Demand	88.6	mg/L

Client Sample ID: **11-LKSD-WW_02B**
SGS Ref. #: 1114567005
Microbiology Laboratory

Parameter	Result	Units
Biochemical Oxygen Demand	14.1	mg/L

Client Sample ID: **11-LKSD-WW_03B**
SGS Ref. #: 1114567006
Microbiology Laboratory

Parameter	Result	Units
Biochemical Oxygen Demand	31.0	mg/L

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_01A**
SGS Ref. #: 1114567001
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/14/11 11:45
Receipt Date/Time: 09/21/11 08:45

Waters Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chemical Oxygen Demand	1770	200	62.0	mg/L		WSP4897		

Batch Information

Analytical Batch: WSP4897
Analytical Method: EPA 410.4
Analysis Date/Time: 09/28/11 15:15

Initial Prep Wt./Vol.: 0.2 mL

Container ID:1114567001-A
Analyst: AYC

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_02A**
SGS Ref. #: 1114567002
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/14/11 12:15
Receipt Date/Time: 09/21/11 08:45

Waters Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chemical Oxygen Demand	972	200	62.0	mg/L		WSP4897		

Batch Information

Analytical Batch: WSP4897
Analytical Method: EPA 410.4
Analysis Date/Time: 09/28/11 15:15

Initial Prep Wt./Vol.: 0.2 mL

Container ID:1114567002-A
Analyst: AYC

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_03A**
SGS Ref. #: 1114567003
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/14/11 12:45
Receipt Date/Time: 09/21/11 08:45

Waters Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chemical Oxygen Demand	1380	200	62.0	mg/L		WSP4897		

Batch Information

Analytical Batch: WSP4897
Analytical Method: EPA 410.4
Analysis Date/Time: 09/28/11 15:15

Initial Prep Wt./Vol.: 0.2 mL

Container ID:1114567003-A
Analyst: AYC

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_01B**
SGS Ref. #: 1114567004
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/19/11 11:00
Receipt Date/Time: 09/21/11 08:45

Microbiology Laboratory

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Biochemical Oxygen Demand	88.6	2.00	2.00	mg/L	1	BOD4412		

Batch Information

Analytical Batch: BOD4412
Analytical Method: SM20 5210B
Analysis Date/Time: 09/21/11 10:20
Dilution Factor: 1

Initial Prep Wt./Vol.: 300 mL
Container ID:1114567004-A
Analyst: ACF

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_02B**
SGS Ref. #: 1114567005
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/19/11 11:05
Receipt Date/Time: 09/21/11 08:45

Microbiology Laboratory

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Biochemical Oxygen Demand	14.1	2.00	2.00	mg/L	1	BOD4412		

Batch Information

Analytical Batch: BOD4412
Analytical Method: SM20 5210B
Analysis Date/Time: 09/21/11 10:20
Dilution Factor: 1

Initial Prep Wt./Vol.: 300 mL

Container ID:1114567005-A
Analyst: ACF

Oasis Environmental Print Date: 9/29/2011 11:07 am

Client Sample ID: **11-LKSD-WW_03B**
SGS Ref. #: 1114567006
Project ID: LKSD 658-002 Bio Solids
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 09/19/11 11:10
Receipt Date/Time: 09/21/11 08:45

Microbiology Laboratory

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Biochemical Oxygen Demand	31.0	2.00	2.00	mg/L	1	BOD4412		

Batch Information

Analytical Batch: BOD4412
Analytical Method: SM20 5210B
Analysis Date/Time: 09/21/11 10:20
Dilution Factor: 1

Initial Prep Wt./Vol.: 300 mL

Container ID:1114567006-A
Analyst: ACF

SGS Ref.#	1054812	Method Blank	**Printed Date/Time**	09/29/2011 11:07
Client Name	Oasis Environmental		**Prep**	**Batch**
Project Name/#	LKSD 658-002 Bio Solids			**Method**
Matrix	Water (Surface, Eff., Ground)			**Date**

QC results affect the following production samples:

1114567004, 1114567005, 1114567006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Microbiology Laboratory					
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	09/21/11
Batch BOD4412					
Method SM20 5210B					
Instrument					

SGS Ref.#	1055585	Method Blank	**Printed Date/Time**	09/29/2011 11:07
Client Name	Oasis Environmental		**Prep**	**Batch**
Project Name/#	LKSD 658-002 Bio Solids			**Method**
Matrix	Water (Surface, Eff., Ground)			**Date**

QC results affect the following production samples:

1114567001, 1114567002, 1114567003

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Waters Department					
Chemical Oxygen Demand	6.26J	20.0	6.20	mg/L	09/28/11
Batch WSP4897					
Method EPA 410.4					
Instrument					

SGS Ref.#	1055589	Duplicate	**Printed Date/Time**	09/29/2011	11:07
Client Name	Oasis Environmental		**Prep**	**Batch**	
Project Name/#	LKSD 658-002 Bio Solids			**Method**	
Original	1114657001			**Date**	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1114567001, 1114567002, 1114567003

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
Waters Department						
Chemical Oxygen Demand	366	344	mg/L	6	(< 25)	09/28/2011

Batch WSP4897
Method EPA 410.4
Instrument

SGS Ref.#	1054813	Lab Control Sample Seeded	**Printed Date/Time**	09/29/2011	11:07
			Prep	**Batch**	
Client Name	Oasis Environmental			**Method**	
Project Name/#	LKSD 658-002 Bio Solids			**Date**	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1114567004, 1114567005, 1114567006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Microbiology Laboratory								
Biochemical Oxygen Demand	LCSS	187	94	(84.6-115.4)			198 mg/L	09/21/2011

Batch BOD4412
Method SM20 5210B
Instrument

SGS Ref.#	1055586	Lab Control Sample	**Printed Date/Time**	09/29/2011	11:07
	1055587	Lab Control Sample Duplicate	**Prep**	**Batch**	
Client Name	Oasis Environmental			**Method**	
Project Name/#	LKSD 658-002 Bio Solids			**Date**	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1114567001, 1114567002, 1114567003

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Waters Department								
Chemical Oxygen Demand	LCS	993	99	(90-110)			1000 mg/L	09/28/2011
	LCSD	985	99		1	(< 25)	1000 mg/L	09/28/2011

Batch WSP4897
Method EPA 410.4
Instrument

SGS Ref.#	1055588	Matrix Spike	**Printed Date/Time**	09/29/2011	11:07
			Prep	**Batch**	
				Method	
				Date	
Original	1114657001				
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1114567001, 1114567002, 1114567003

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Waters Department										
Chemical Oxygen Demand	MS	366	4590	84*	(90-110)			5000	mg/L	09/28/2011

Batch WSP4897
Method EPA 410.4
Instrument

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1114567

(1)

CLIENT: OASIS Environmental

CONTACT: Lisa Nicholson PHONE NO: (907) 258-4880

PROJECT NAME: LKSD 658-002 Naposkiak BioSolids PROJECT/ PWSID/ PERMIT#:

REPORTS TO: Lisa Nicholson, Max Schwenne EMAIL: l.nicholson@oasisenviro.com, m.schwenne@oasisenviro.com

INVOICE TO: OASIS Environmental QUOTE #:

P.O. #:

SGS Reference #:

page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	COD	BOD								REMARKS/ LOC ID
Preservatives Used							H_2SO_4	—								
(1) A	11-LKSD-WW-01A	9/14/11	11:45	SLUDGE	1	C	X									
(2)	11-LKSD-WW-02A	↓	12:15	↓	1	C	X									
(3)	11-LKSD-WW-03A	↓	12:45	↓	1	C	X									
(4)	11-LKSD-WW-01B	9/19/11	11:00	↓	1	C		X								
(5)	11-LKSD-WW-02B	↓	11:05	↓	1	C		X								
(6) ✓	11-LKSD-WW-03B	↓	11:10	↓	1	C		X								

(3) Analysis Required

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Eric Boyette	9/21/11	08:00	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 9/21/11	Time 0845	Received For Laboratory By: Amy [illegible]

(4)

DOD Project? YES NO

Cooler ID 1 of 1

Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

BODs approaching hold time.

Temperature Blank °C: 3-8 1LD

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

SGS

1114567

SAMPLE RECEIPT FORM

Review Criteria:	Condition:	Comments/Action Taken:
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	Yes No N/A Yes No N/A	
Temperature blank compliant* (i.e., 0-6°C after correction factor)? ** Note: Exemption permitted for chilled samples collected less than 8 hours ago.* Cooler ID: 1 @ 3.8 w/ Therm.ID: NP Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ *Note: If non-compliant, use form FS-0029 to document affected samples/analyses.* If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled." **If temperature(s) <0°C, were all sample containers ice free?**	Yes No N/A Yes No N/A	
Delivery method (specify all that apply): Client USPS Alert Courier Road Runner AK Air Lynden Carlile ERA PenAir FedEx UPS NAC Other: → *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?*	Note airbill/tracking # See Attached or N/A Yes No N/A	
→ For samples received with payment, note amount ($) and cash / check / CC (circle one). → For samples received in FBKS, ANCH staff will verify all criteria are reviewed.		N/A SRF Initiated by: N/A
Do samples **match COC*** (i.e., sample IDs, dates/times collected)? ** Note: Exemption permitted if times differ <1hr; in which case, use times on COC.* Were analyses requested unambiguous?	Yes No N/A Yes No N/A	
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): Bubble Wrap Separate plastic bags Vermiculite Other:	Yes No N/A	
Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)? Were all soil VOAs **field extracted** with MeOH+BFB? Were the bottles provided by SGS? (Note apparent exceptions.)	Yes No N/A Yes No N/A Yes No N/A	
Were **proper containers** (type/mass/volume/preservative*) used? ** Note: Exemption permitted for waters to be analyzed for metals.* Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?	Yes No N/A Yes No N/A	
For **special handling** (e.g., "MI" or foreign soils, lab filter, limited volume, Ref Lab), were bottles/paperwork flagged (e.g., sticker)?	Yes No N/A	
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**? If pH was adjusted, were bottles flagged (i.e., stickers)?	Yes No N/A Yes No N/A	
For **RUSH/SHORT Hold Time or site-specific QC** (e.g., BMS/BMSD/BDUP) samples, were the COC & bottles flagged (e.g., stickers) accordingly? For RUSH/SHORT HT, was email sent?	Yes No N/A	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	Yes No N/A	SRF Completed by: ala PM = C. Homestead N/A
Was **PEER REVIEW** of ***sample numbering/labeling*** completed (i.e., compare WO# on containers to COC, unique lab ID on each container, LIMS container labels used?) Was selection of ***"Bill to"*** client **PEER REVIEW**ed?	Yes No N/A Yes No N/A	Peer Reviewed by: [illegible] Metrics: 9/21/11 9:15

Additional notes (if applicable):

Note to Client: *Any "no" circled above indicates non-compliance with standard procedures and may impact data quality.*

1. QUALITY ASSURANCE/ QUALITY CONTROL

Laboratory Quality Assurance/ Quality Control (QA/QC) data associated with the analysis of project samples has been reviewed to evaluate the integrity of the analytical data generated during the September 2011 site characterization sampling at the Former BIA School Day Tanks in Napaskiak, Alaska. Samples were shipped to TestAmerica in Anchorage, Alaska and results were reported in two sample delivery groups (SDG) AUI0080 and AUI0093. Samples were collected, reported, and shipped to in general accordance with the DEC-approved work plan (OASIS 2011).

All data were reviewed in accordance with United States Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Methods (USEPA 2008) and DEC regulatory guidance documents (DEC 2005; 2008; 2009; 2010). This data review focused on the following QC parameters and their effect on the quality of data and usability: sample handling and chain-of-custody documentation; holding time compliance; field QC (rinsate blanks, trip blanks, field duplicates); laboratory QC (method blanks, laboratory control samples (LCS) and LCS duplicates (LCSD), surrogates, matrix spikes (MS) and MS duplicates (MSD); method reporting limits and completeness.

Samples were tested using the following methods for the associated analytes:

- Alaska Method (AK) 101 – Gasoline range organics (GRO)
- AK102 – Diesel range organics (DRO)
- AK 103 – Residual range organics (RRO)
- USEPA 8021B – Benzene, toluene, ethylbenzene and xylene (BTEX)
- USEPA 8270 – Polynuclear aromatic hydrocarbons (PAH) by SIM analysis
- USEPA 8260 – Volatile Organic Compounds (VOCs)

The details of this review and qualification of the data are summarized in the following sections.

1.1. Sample Handling and Chain of Custody

The sample coolers were delivered with custody seals in place, unbroken and intact. All sample containers in the sample coolers were received at the laboratory intact, with proper documentation, and within the specified temperature range of 4°C ± 2°C, with the following exceptions.

In AUI00080, one cooler temperature exceeded the range at 6.8°C and the temperature blanks were recorded at 6.6°C and 6.5°C. No data was qualified due to temperature. PAH and VOCs were subcontracted from TestAmerica Anchorage to TestAmerica Spokane Washington. Limited sample volume was provided for water PAH analysis and the affected samples included NK-11-WP-02 and NK_11-WP-03.

In SDG AUI0093, coolers were received within temperature ranges. The PAH, DRO and SPLP PAH samples were subcontracted from TestAmerica Anchorage to TestAmerica Portland.

1.2. Holding Times

All samples were extracted, digested, and/or analyzed within the holding time criteria for the applicable analytical methods and in accordance with the work plan specifications, with the following exception.

In SDG AUI0080, samples NK-11-WP-02 and NK-11-WP-03 were analyzed outside of the method holding time for PAH analysis. Due to remote location and transportation issues, these samples were received at TestAmerica Anchorage with the holding time close to expiration. The laboratory provided notification and samples were shipped to TestAmerica in Spokane WA. The samples were received outside of the method holding time and analyzed 8 days past the method holding time. The reported positive results were qualified as estimated (J-H) and the reported not detect (ND) values were qualified as estimated (UJ-H).

1.3. Field QA/QC

Field QA/QC protocols are designed to monitor for possible contamination during collection and transport of samples collected in the field. Collection and analysis of field duplicates also facilitates an evaluation of precision that takes into account potential variables associated with sampling procedures and laboratory analyses. For this project, trip blanks and field duplicates were submitted for analysis.

1.3.1. Trip Blanks

Three trip blanks were submitted with this SDG. All trip blank results were ND at concentrations above the analytical reporting limit (RL) or practical quantitation limit (PQL).

1.3.2. Field Duplicates

There were 5 water samples submitted and no water field duplicates submitted. There were 24 primary soil samples, with two soil field duplicates – primary NK-11-SS-11 with duplicate NK-11-SS-12; and primary NK-11-SS-23 with duplicate NK-11-SS-24. The frequency of field duplicate collection met the 10% frequency requirements specified in the work plan.

When analytes were present in concentrations below the MRL in one or both samples, no valid comparison could be made. All relative percent differences (RPDs) beween primary and duplicate samples met DEC recommendations of <50% for soil samples, with the following exceptions. The RPD between primary NK-11-SS-23 and duplicate NK-11-SS-24 exceeded the limits in GRO (67.8%), Benzene (55.0%), total xylenes (51.8%).The associated results were qualified as estimated (JD).

There was adequate comparability of field duplicate results to meet project data quality objectives.

1.4. Laboratory QC

1.4.1. Method Blanks

Method blanks were analyzed concurrent with a batch of 20 or fewer primary samples for each of the analytical procedures performed for this project. Method blanks were analyzed at the required frequency and target analytes were not detected (ND) in the blanks at concentrations above the analytical reporting limit or PQL.

1.4.2. Laboratory Control Samples

Analysis of laboratory control samples (LCS) and LCS duplicates (LCSD) for target analytes met laboratory and project QC goals for target analytes, with the following exception. In SDG AUI0093, the LCSD RPD exceeded the limits in BTEX analysis. The associated samples included NK-11-SS-22, NK-11-SS-23, NK-11-SS-24, NK-11-SS-25, NK-11-SS-26, NK-11-SS-27 and NK-11-TB-03 and positive BTEX results were qualified as flagged JL, as estimated.

1.4.3. Matrix Spikes

Extra volumes of primary field samples were collected and submitted to the laboratory for matrix spike/matrix spike duplicate (MS/MSD) analyses. Matrix spikes have a known quantity of target analytes are added (spiked) to field samples. Spike recoveries are calculated and are used to evaluate both site conditions and laboratory quality control. MS/MSD percent recoveries (%R) and RPDs were within limits, with the following exceptions.

In SDG AUI0080, the %R and RPD in MS/MSD for chrysene, indo (1,2,3-cd) pyrene, naphthalene and fluorine were outside of the quality control limits. The batch was accepted based on the LCS/LCSD, which was within the limits. Therefore, no qualifications were required. The DRO MS/MSD %R and RPDs were outside the quality control limits. The associated LCS/LCSD was within limits and no data required qualification.

In SDG AUI0093, the %R and RPD in MS/MSD in DRO and BTEX were outside of the quality control limits. The batch was accepted based on the LCS/LCSD, which was within the limits. Therefore, no qualifications were required.

1.4.4. Surrogates

Surrogate recoveries were within prescribed control limits for all primary samples, LCS/LCSD and MS/MSD with the following exceptions.

In SDG AUI0080, the GRO and BTEX surrogate percent recoveries were above the limits in samples NK-11-SS-05, NK-11-SS-08, NK-11-SS-11, NK-11-SS-12. Reported positive results were qualified as estimated (JS). GRO and BTEX surrogate percent recoveries were below control limits in samples NK-11-SS-02 and NK-11-SS-18.

Reported positive results were qualified as estimated (JS) and ND results were qualified UJS. PAH surrogate percent recoveries were above the quality control limits in sample NK-11-SS-13. The associated results for naphthalene, 2-methylnaphthalene and 1-methylnaphthalene were qualified as estimated (JS).

In SDG AUI0093, ethylbenzene and total xylene surrogates were below the percent recovery limits in sample NK-11-SS-22. The associated ND results were qualified UJS. Surrogate fluorene-d10 did not recover due to a dilution factor and matrix interference in PAH analysis for sample NK-11-SS-23. The associated results were diluted 50x; therefore no data was qualified. Surrogate percent recoveries were above the limits and the associated positive GRO result in samples NK-11-SS-23, NK-11-SS-24, NK-11-SS-25; and positive BTEX results in sample NK-11-SS-24 were qualified as estimated (JS).

1.4.5. Laboratory Duplicates

Two sample aliquots of the same sample are taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of the sample and duplicate give a measure of the precision associated with laboratory procedures but not with sample collection, preservation or storage procedures. Precision is expressed as RPD. All laboratory duplicates met QC goals, with the following exceptions.

In SDG AUI0080, the DRO laboratory duplicate exceeded the quality control limits. The associated DRO result in samples NK-11-SS-20 and NK-11-SS-01 were qualified as estimated; with positive results qualified J.

In SDG AUI0093, the GRO and total xylene RPDs in the laboratory duplicate exceeded the quality control limits. The associated result is not within this data set, therefore no data required qualification.

1.4.6. Calibration Verification

Analyses of Initial Calibration Verification (ICV) and Continuous Calibration Verification (CCV) samples for target analytes met laboratory and project QC goals for target analytes in all SDGs.

1.4.7. Internal Standard Recovery

Internal standards are chemical substances that are added in a constant amount to samples, the blank and calibration standards and are used for instrumentation calibration. All internal standard recoveries met laboratory and project QC goals.

1.5. Reporting Limits

Method Reporting Limits (MRLs) and PQLs met or were below established criteria specified for all analyses in the project work plan. The reporting limits were also below the DEC established cleanup levels.

1.6. Precision and Accuracy

Precision criteria monitor analytical reproducibility. Accuracy criteria monitor agreement of measured results with "true values" established by spiking applicable samples with a known quantity of analyte or surrogate. Precision and accuracy were evaluated by comparing LCS/LCSDs, MS/MSDs and field duplicate pairs for this project. Field duplicates and MS/MSD samples were collected in accordance with Work Plan specifications. Field duplicate RPDs met applicable control limits. Recoveries and RPDs for all LCS/LSCD samples were within required limits. Some MS/MSD samples were outside required limits, LCS/LCSD samples were however within limits. Data Quality Objectives of an overall 90% accuracy in QC samples were met.

1.7. Completeness

Data completeness is defined as the percentage of usable data (usable data divided by the total possible data). The overall project completeness goal is 90%:

$$\% \text{ completeness} = \frac{\text{number of valid (i.e., non-R flagged) results}}{\text{number of possible results}}$$

All requested analyses were performed in accordance with work plan specifications. No were qualified as unusable (i.e., "R"). Completeness for this project is 100%.

1.8. Representativeness and Comparability

Data representativeness expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or environmental condition. The number and selection of samples were specified in the Work Plan and verified in the field to account accurately for site variations and sample matrices. The data quality objectives (DQO) for representativeness were met.

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another. Data produced for this project followed applicable field sampling techniques and specific analytical methodology. The DQO for comparability was met.

1.9. Data Summary

Based upon the information provided, the data are acceptable for use. All requested analyses were performed in accordance with work plan specifications. No results were qualified as unusable (i.e., "R"). Completeness for this project is 100%. In general, the overall quality of the data was acceptable for the objectives established for this project.

2. REFERENCES

DEC. 2005. *Draft Guidance on Developing Conceptual Site Models*, March 24.

DEC. 2008. *18 AAC 75, Oil and Other Hazardous Substances Pollution Control*, October 9.

DEC. 2009. Technical Memorandum: Environmental Laboratory Data and Quality Assurance Requirements. March.

DEC. 2010. Laboratory Data Review Checklist. Version 2.7. January.

OASIS 2011. Site Characterzation Work Plan, Former BIA School Day Tanks, Napaskiak, Alaska. July 22. .

USEPA. 2008. *Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA-540-R-08-01).

USEPA. 2010. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA-540-R-10-011).

APPENDIX D

Conceptual Site Model

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Print Form

Human Health Conceptual Site Model
Scoping Form

Site Name: Former BIA School, Napaskiak, Alaska

File Number: 2433.38.004

Completed by: Lisa Nicholson, C.P.G.

Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, summary text about the CSM and a graphic depicting exposure pathways should be submitted with the site characterization work plan and updated as needed in later reports.

General Instructions: Follow the italicized instructions in each section below.

1. General Information:

Sources *(check potential sources at the site)*

- ☐ USTs
- ☒ ASTs
- ☐ Dispensers/fuel loading racks
- ☐ Drums
- ☐ Vehicles
- ☐ Landfills
- ☐ Transformers
- ☐ Other:

Release Mechanisms *(check potential release mechanisms at the site)*

- ☒ Spills
- ☒ Leaks
- ☐ Direct discharge
- ☐ Burning
- ☐ Other:

Impacted Media *(check potentially-impacted media at the site)*

- ☒ Surface soil (0-2 feet bgs*)
- ☒ Subsurface soil (>2 feet bgs)
- ☒ Air
- ☐ Sediment
- ☒ Groundwater
- ☐ Surface water
- ☐ Biota
- ☐ Other:

Receptors *(check receptors that could be affected by contamination at the site)*

- ☒ Residents (adult or child)
- ☒ Commercial or industrial worker
- ☒ Construction worker
- ☒ Subsistence harvester (i.e. gathers wild foods)
- ☒ Subsistence consumer (i.e. eats wild foods)
- ☒ Site visitor
- ☒ Trespasser
- ☐ Recreational user
- ☐ Farmer
- ☐ Other:

* bgs - below ground surface

2. **Exposure Pathways:** *(The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)*

a) Direct Contact -

1. Incidental Soil Ingestion

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site-specific basis.) ☒

If the box is checked, label this pathway complete: Complete

Comments:

2. Dermal Absorption of Contaminants from Soil

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.) ☒

Can the soil contaminants permeate the skin (see Appendix B in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

PAHs are present in soil

b) Ingestion -

1. Ingestion of Groundwater

Have contaminants been detected or are they expected to be detected in the groundwater, or are contaminants expected to migrate to groundwater in the future? ☒

Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if DEC has determined the ground-water is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350. ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

Drinking water well within 550 feet of site

2. Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water, or are contaminants expected to migrate to surface water in the future? ☒

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities). ☐

If both boxes are checked, label this pathway complete: Incomplete

Comments:

Napaskiak slough is silty and is not likely to be used for drinking or swimming.

3. Ingestion of Wild and Farmed Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild or farmed foods? ☒

Do the site contaminants have the potential to bioaccumulate (see Appendix C in the guidance document)? ☒

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. soil within the root zone for plants or burrowing depth for animals, in groundwater that could be connected to surface water, etc.) ☒

If all of the boxes are checked, label this pathway complete: Complete

Comments:

PAH compounds are present in the soil

c) Inhalation-

1. Inhalation of Outdoor Air

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.) ☒

Are the contaminants in soil volatile (see Appendix D in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

2. Inhalation of Indoor Air

Are occupied buildings on the site or reasonably expected to be occupied or placed on the site in an area that could be affected by contaminant vapors? (within 30 horizontal or vertical feet of petroleum contaminated soil or groundwater; within 100 feet of non-petroleum contaminted soil or groundwater; or subject to "preferential pathways," which promote easy airflow like utility conduits or rock fractures) ☒

Are volatile compounds present in soil or groundwater (see Appendix D in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

Buildings are currently occupied by Napaskiak residents. New school will be built in this area.

3. **Additional Exposure Pathways:** *(Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)*

Dermal Exposure to Contaminants in Groundwater and Surface Water

Dermal exposure to contaminants in groundwater and surface water may be a complete pathway if:

- Climate permits recreational use of waters for swimming.
- Climate permits exposure to groundwater during activities, such as construction.
- Groundwater or surface water is used for household purposes, such as bathing or cleaning.

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

Check the box if further evaluation of this pathway is needed: ☒

Comments:

Construction workers may be exposed to groundwater.

Inhalation of Volatile Compounds in Tap Water

Inhalation of volatile compounds in tap water may be a complete pathway if:

- The contaminated water is used for indoor household purposes such as showering, laundering, and dish washing.
- The contaminants of concern are volatile (common volatile contaminants are listed in Appendix D in the guidance document.)

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Volatile compounds are not present in the groundwater

Inhalation of Fugitive Dust

Inhalation of fugitive dust may be a complete pathway if:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers (Particulate Matter - PM_{10}). Particles of this size are called respirable particles and can reach the pulmonary parts of the lungs when inhaled.
- Chromium is present in soil that can be dispersed as dust particles of any size.

Generally, DEC direct contact soil cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway because it is assumed most dust particles are incidentally ingested instead of inhaled to the lower lungs. The inhalation pathway only needs to be evaluated when very small dust particles are present (e.g., along a dirt roadway or where dusts are a nuisance). This is not true in the case of chromium. Site specific cleanup levels will need to be calculated in the event that inhalation of dust containing chromium is a complete pathway at a site.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Direct Contact with Sediment

This pathway involves people's hands being exposed to sediment, such as during some recreational, subsistence, or industrial activity. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if the the contaminants are able to permeate the skin (see Appendix B in the guidance document). This type of exposure should be investigated if:

- Climate permits recreational activities around sediment.
- The community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

Generally, DEC direct contact soil cleanup levels in 18 AAC 75, Table B1, are assumed to be protective of direct contact with sediment.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

4. Other Comments *(Provide other comments as necessary to support the information provided in this form.)*

HUMAN HEALTH CONCEPTUAL SITE MODEL GRAPHIC FORM

Site: Former BIA School
Napaskiak, Alaska

Completed By: Lisa Nicholson
Date Completed: November 9, 2011

***Instructions*: Follow the numbered directions below. Do not consider contaminant concentrations or engineering/land use controls when describing pathways.**

(1) *Check the media that could be directly affected by the release.*

(2) *For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Check additional media under (1) if the media acts as a secondary source.*

Media	Transport Mechanisms	
☑ Surface Soil (0-2 ft bgs)	Direct release to surface soil	check soil
	☐ Migration to subsurface	check soil
	☐ Migration to groundwater	check groundwater
	☐ Volatilization	check air
	☐ Runoff or erosion	check surface water
	☐ Uptake by plants or animals	check biota
	☐ Other (list):_____	
☑ Subsurface Soil (2-15 ft bgs)	Direct release to subsurface soil	check soil
	☐ Migration to groundwater	check groundwater
	☐ Volatilization	check air
	☐ Uptake by plants or animals	check biota
	☐ Other (list):_____	
☐ Ground-water	Direct release to groundwater	check groundwater
	☐ Volatilization	check air
	☐ Flow to surface water body	check surface water
	☐ Flow to sediment	check sediment
	☐ Uptake by plants or animals	check biota
	☐ Other (list):_____	
☐ Surface Water	Direct release to surface water	check surface water
	☐ Volatilization	check air
	☐ Sedimentation	check sediment
	☐ Uptake by plants or animals	check biota
	☐ Other (list):_____	
☐ Sediment	Direct release to sediment	check sediment
	☐ Resuspension, runoff, or erosion	check surface water
	☐ Uptake by plants or animals	check biota
	☐ Other (list):_____	

(3) *Check all exposure media identified in (2).*

(4) *Check all pathways that could be complete. The pathways identified in this column **must** agree with Sections 2 and 3 of the Human Health CSM Scoping Form.*

(5) *Identify the receptors potentially affected by each exposure pathway: Enter "C" for current receptors, "F" for future receptors, "C/F" for both current and future receptors, or "I" for insignificant exposure.*

Current & Future Receptors

Exposure Media	Exposure Pathway/Route	Residents (adults or children)	Commercial or industrial workers	Site visitors, trespassers, or recreational users	Construction workers	Farmers or subsistence harvesters	Subsistence consumers	Other
☑ soil	☑ Incidental Soil Ingestion	C/F	F	C/F	C/F	C/F	C/F	
	☑ Dermal Absorption of Contaminants from Soil	C/F	F	C/F	C/F	C/F	C/F	
	☐ Inhalation of Fugitive Dust							
☑ groundwater	☑ Ingestion of Groundwater	C/F		C/F				
	☑ Dermal Absorption of Contaminants in Groundwater	C/F			C/F			
	☑ Inhalation of Volatile Compounds in Tap Water	C/F						
☑ air	☑ Inhalation of Outdoor Air	C/F		C/F	C/F	C/F		
	☑ Inhalation of Indoor Air	C/F	C/F	C/F	C/F			
	☐ Inhalation of Fugitive Dust							
☑ surface water	☐ Ingestion of Surface Water							
	☐ Dermal Absorption of Contaminants in Surface Water							
	☐ Inhalation of Volatile Compounds in Tap Water							
☐ sediment	☐ Direct Contact with Sediment							
☑ biota	☑ Ingestion of Wild or Farmed Foods						C/F	

Revised, 10/01/2010

APPENDIX E

Volume Estimates

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TABLE E1: ESTIMATED VOLUMES OF BIOSOLIDS AND WATER IN SEWAGE LAGOON

Average Length and Width		
North-South	25	feet
East-West	34	feet
Area	850	square feet
Average sewage solid depth	0.3	feet
Uncertainty factor	2	
Estimated sewage solids volume	**21**	**cubic yards**
Average water depth in lagoon	1.4	feet
Uncertainty factor	2	
Estimated water volume	**18,000**	**gallons**

TABLE E2: ORDER OF MAGNITUDE ESTIMATE OF THE VOLUME OF LIME REQUIRED

Sludge Volume			
Estimated sewage solids volume	16	cubic yards	
Estimated sewage solids volume	3,232	gallons	
Estimated sewage solids volume	12,231	liters	
Dose Rate			
	0.75	teaspoon lime	
	200	ml sludge	
Sewage solids Volume	0.2	liters	
Specific Gravity of Lime	2.3	Unitless	Average value from MSDS
Density of water	1	kg/liter	
Density of lime	2.3	kg/liter	
Volume of lime used in bench test			
1 teaspoon =	0.0049	liter	
Volume of lime	0.004	liters	
Mass of lime	0.009	kilograms	
Mass of lime	9	grams	
Required dose rate			
	0.043	kilograms per liter	
Estimated mass of hydrated lime required			
	520	kilograms	
	1144	lbs	
Estimated volume of quicklime			
Mass of molecule of slaked lime ($Ca(OH)_2$)	74.093		
Mass of molecule of quicklime (CaO)	56.077		
Estimated mass of quicklime required			
	900	**lbs**	

APPENDIX F

Remediation Cost Estimates

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REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 1: EXCAVATION AND OFF-SITE DISPOSAL
NAPASKIAK SCHOOL REMEDIATION

ERS Role Description	ERS Contract Personnel	Contract Rate	Activity Description					Total Hours	Contract Rate Cost Summary
			Remediation Work Plan	Field Support	Remedial Action Report	Project Management	Landfill Permitting		
			hours	hours	hours	hours	hours		
OASIS Environmental Personnel									
PROJECT MANAGER	Max Schwenne	$ 123.65	10	50	10	80	8	158	$19,536.70
PROGRAM CHEMIST	Gloria Beckman	$ 115.64	10		40		8	58	$6,706.98
ENVIRONMENTAL ENGINEER	Steve Witzmann	$ 112.52	40		40	40		120	$13,502.40
ENVIRONMENTAL SCIENTISTS	Bobby Beckman	$ 74.08	80	300	80			460	$34,076.43
	Dan Frank	$ 98.79		300				300	$29,636.88
	Lisa Nicholson	$ 96.22	40	150	40	40	24	294	$28,288.92
	Meilissa Pike	$ 60.57						0	$0.00
	Liz Shen	$ 98.79					120	120	$11,854.75
OTHER PERSONNEL - Draftsperson	Charlotte Horne	$ 90.66	20		20		24	64	$5,802.04
OTHER PERSONNEL - Tech Editor	Chris Shock	$ 74.52	10		10		8	28	$2,086.45
SITE SUPERINTENDENTS	TBD	$ 113.25		300				300	$33,975.00
CRAFT LABOR - Operator	TBD	$ 90.15		250				250	$22,537.50
CRAFT LABOR - Operator	TBD	$ 90.15		250				250	$22,537.50
CRAFT LABOR - Laborer	TBD	$ 73.82		250				250	$18,455.00
CRAFT LABOR - Laborer	TBD	$ 73.82		250				250	$18,455.00
OTHER PERSONNEL - Admin/Equip Support	Neil Barnack	$ 39.64				80		80	$3,171.17
		Total OASIS	210	2100	240	240	192	2982	**$270,622.71**

TOTAL DIRECT LABOR COST		**$270,623**
G&A PRIME CONTRACTOR LABOR	Included in Rates Above	-
PRIME CONTRACTOR DIRECT COST PLUS G&A		270,623
FEE PRIME CONTRACTOR	10.00%	27,062
SUBTOTAL PRIME CONTRACTOR		297,685
TOTAL DIRECT MATERIALS, EQUIPMENT, AND OTHER Costs		341,331
TOTAL SUBCONTRACTOR COST		738,728
G&A ON SUBCONTRACTORS AND ODCs	8.75%	94,505
SUBCONTRACTOR COSTS PLUS OVERHEAD		**1,174,564**
PROFIT ON SUBCONTRACTOR AND ODCs	8.00%	101,526
SUBTOTAL SUBCONTRACTOR		**1,276,090**
GRAND SUBTOTAL		**1,573,775**
GENERAL LIABILITY INSURANCE	0.97%	15,266
FINAL TOTAL TASK COST		**$ 1,589,041**

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 1: EXCAVATION AND OFF-SITE DISPOSAL
NAPASKIAK SCHOOL REMEDIATION

OTHER DIRECT COSTS					
MATERIALS / EQUIPMENT	Vendor	Unit Type	Rate	Quantity	Subtotal
Equipment Day rate	Various	DAY	$ 4,679.46	25	$ 116,986.61
Field Supplies (See attached breakdown)		LS	$ 15,271.00	1	$ 15,271.00
SMALL TOOLS % OF LABOR	0.02	%			$ 5,412.45
Repair and Maintenance of Heavy Equipment			$ 5,000.00	1	$ 5,000.00
Supersacks	Unitech	ea	$ 22.00	782	$ 17,204.00
Mobe and Demobilization of heavy equipment		LS	$ 15,000.00	1	$ 15,000.00
Fuel (75 gallons per day each for excavator, loader, and 2 dump trucks)		GAL	$ 8.00	7500	$ 60,000.00
Backfill		cy	$45.00	1250.00	$ 56,250.00
Quicklime		lbs	$ 3.00	900.00	$ 2,700.00
					$ -
					$ 293,824.06
OTHER	Vendor	Unit Type	Unit Cost	Units	Subtotal
Shipping There	Air/Marine	EA	$ 8,000.00	1	$ 8,000.00
Shipping Home	Air/Marine	EA	$ 5,000.00	1	$ 5,000.00
Certified scale		EA	$ 1,650.00	1	$ 1,650.00
Quicklime shipping			$ 1.50	900	$ 1,350.00
Flight Anchorage to NAP	AA and Grant	EA	$ 738.00	14	$ 10,332.00
Per diem	NA	Day	$ 71.00	175	$ 12,425.00
Property Rentals for housing	CVRF	PPPD	$ 50.00	175	$ 8,750.00
					$ 47,507.00
SUBCONTRACTORS		Unit Type	Unit Cost	Units	Subtotal
DISPOSAL		TON	$ 115.00	1,172	$ 134,765.63
PAPERWORK & MANIFESTING		LS	$ 300.00	1	$ 300.00
Analytical costs (breakdown attached)		LS	$ 11,100.00	1	$ 11,100.00
Local Logistics and Facilities		Hrs	$ 100.00	80	$ 8,000.00
TRANSPORATION NAP TO SEA NORTHLAND		TON	$ 492.00	1,172	$ 576,562.50
Final Survey	Mammoth	LS	$ 8,000.00	1	$ 8,000.00
					$ -
					$ 738,728.13

ALTERNATIVE 1: EXCAVATION AND OFF-SITE DISPOSAL
BASIS OF ESTIMATE AND ASSUMPTIONS

This estimate was developed based on the following considerations:

Raw Volume	Volume with Uncertainty Factor	
375	468.75	LCY of DRO contaminated soil (<1,000 mg/kg) would require remediation
625	781.25	LCY of DRO contaminated soil (>1,000 mg/kg) would require remediation
1000	**1250**	Total volume (LCY) of soil requiring remediation

1.25 Uncertainty factor applied to volumes and areas

Contaminated soil (<1,000 mg/kg DRO) will be used as landfill cover material
Scope requires that the Napaskiak landfill be permitted
Contaminated soil (>1,000 mg/kg DRO) will be shipped to a RCRA Subtitle D landfill
Soil is not RCRA hazardous.
Confirmation samples will be analyzed for DRO/RRO, BTEX, and PAHs.
Confirmation sample density will be one sample per 250 square feet of excavation floor.

This cost estimate is based on the following assumptions:

1.5 tons per cubic yard soil density

Soils < 1,000 mg/kg will be stockpiled at the landfill, approx. 900 feet south of the site for use as landfill cover material (by others)

Barge landing on the Napaskiak Slough just north of the site is practicable

Field equipment includes 1 excavator, 1 loader, 1 hopper, 2 dump trucks with trailers, port potty, 2 four-wheelers, and 2 six-wheelers.

Soils > 1,000 mg/kg will be loaded into supersacks, the supersacks loaded into conexes, and the conexes shipped off site via barge.

The assumed backfill rate ($45 per ton) assumes locally available backfill.

Sewage solids in the lagoon will be treated with quicklime

Amount of Quick Lime 900 lbs

It has been assumed that labor on site for other purposes will be able to oversee testing of the treated biosolids (i.e. pH testing).

Berm material at the sewage lagoon will be sufficient material to backfill the lagoon and cover the biosolids.

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 2: ON SITE TREATMENT AND DISPOSAL
NAPASKIAK SCHOOL REMEDIATION

ERS Role Description	ERS Contract Personnel	Contract Rate	Activity Description						Total Hours	Contract Rate Cost Summary
			Remediation Work Plan hours	Field Support hours	Remedial Action Report hours	Project Management hours	Landfill Permitting hours	Treatability Pilot Study hours		
OASIS Environmental Personnel										
PROJECT MANAGER	Max Schwenne	$ 123.65	10	64	10	80	8	8	180	$22,257.00
PROGRAM CHEMIST	Gloria Beckman	$ 115.64	10		40		8		58	$6,706.98
ENVIRONMENTAL ENGINEER	Steve Witzmann	$ 112.52	40		80	40		80	240	$27,004.80
									0	$0.00
ENVIRONMENTAL SCIENTISTS	Bobby Beckman	$ 74.08	80	576	80			60	796	$58,967.04
	Dan Frank	$ 98.79		288					288	$28,451.40
	Lisa Nicholson	$ 96.22	40	288	40	40	24	40	472	$45,416.22
	Meilissa Pike	$ 60.57							0	$0.00
	Liz Shen	$ 98.79					120		120	$11,854.75
									0	$0.00
OTHER PERSONNEL - Draftsperson	Charlotte Horne	$ 90.66	20		20		24		64	$5,802.04
OTHER PERSONNEL - Tech Editor	Chris Shock	$ 74.52	10		10		8		28	$2,086.45
SITE SUPERINTENDENTS	TBD	$ 113.25		288					288	$32,616.00
CRAFT LABOR - Operator	TBD	$ 90.15		576				60	636	$57,335.40
CRAFT LABOR - Operator	TBD	$ 90.15		240					240	$21,636.00
CRAFT LABOR - Laborer	TBD	$ 73.82		240					240	$17,716.80
CRAFT LABOR - Laborer	TBD	$ 73.82		240					240	$17,716.80
									0	$0.00
OTHER PERSONNEL - Admin/Equip Support	Neil Barnack	$ 39.64				80			80	$3,171.17
		Total OASIS	210	2800	280	240	192	248	3970	$358,738.85

TOTAL DIRECT LABOR COST		**$358,739**
G&A PRIME CONTRACTOR LABOR	Included in Rates Above	-
PRIME CONTRACTOR DIRECT COST PLUS G&A		358,739
FEE PRIME CONTRACTOR	10.00%	35,874
SUBTOTAL PRIME CONTRACTOR		394,613
TOTAL DIRECT MATERIALS, EQUIPMENT, AND OTHER Costs		320,313
TOTAL SUBCONTRACTOR COST		129,250
G&A ON SUBCONTRACTORS AND ODCs	8.75%	39,337
SUBCONTRACTOR COSTS PLUS OVERHEAD		**488,900**
PROFIT ON SUBCONTRACTOR AND ODCs	8.00%	42,259
SUBTOTAL SUBCONTRACTOR		**531,159**
GRAND SUBTOTAL		**925,771**
GENERAL LIABILITY INSURANCE	0.97%	8,980
FINAL TOTAL TASK COST		**$ 934,751**

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 2: ON SITE TREATMENT AND DISPOSAL
NAPASKIAK SCHOOL REMEDIATION

Other Direct Costs

BSI						
Item #	**MATERIALS / EQUIPMENT**	Vendor	Unit Type	Rate	Quantity	Subtotal
All Sites	Equipment Day rate (Excavation)	Various	DAY	$ 4,679.46	24	$ 112,307.14
	Equipment Day rate (Treatment)	Various	DAY	$ 931.25	8	$ 7,450.00
	Field Supplies (See attached breakdown)		LS	$ 15,531.00	1	$ 15,531.00
	SMALL TOOLS % OF LABOR	0.02	%			$ 7,174.78
	Repair and Maintenance of Heavy Equipment			$ 4,000.00	1	$ 4,000.00
	Supersacks	Unitech	ea	$ 22.00	100	$ 2,200.00
	Mobe and Demobilization of heavy equipment		LS	$ 15,000.00	0	$ -
	Fuel (75 gallons per day each for excavator, loader, and 2 dump trucks)		GAL	$ 8.00	7200	$ 57,600.00
	Fuel (75 gallons per day each for loader)		GAL	$ 8.00	75	$ 600.00
	Backfill		cy	$45.00	1250.00	$ 56,250.00
	Quicklime		lbs	$ 3.00	900.00	$ 2,700.00
						$ -
						$ 265,812.92
Item #	**OTHER**	Vendor	Unit Type	Unit Cost	Units	Subtotal
	Shipping There	Air/Marine	EA	$ 8,000.00	1	$ 8,000.00
	Shipping Home	Air/Marine	EA	$ 5,000.00	1	$ 5,000.00
	Certified scale		EA	$ 1,650.00	1	$ 1,650.00
	Quicklime shipping			$ 1.50	900	$ 1,350.00
	Flight Anchorage to NAP	AA and Grant	EA	$ 738.00	22	$ 16,236.00
	Per diem	NA	Day	$ 71.00	184	$ 13,064.00
	Property Rentals for housing	CVRF	PPPD	$ 50.00	184	$ 9,200.00
						$ 54,500.00
Item #	**SUBCONTRACTORS**		Unit Type	Unit Cost	Units	Subtotal
	DISPOSAL		TON	$ 115.00	150	$ 17,250.00
	PAPERWORK & MANIFESTING		LS	$ 300.00	1	$ 300.00
	Analytical costs (breakdown attached)		LS	$ 21,900.00	1	$ 21,900.00
	Local Logistics and Facilities		Hrs	$ 100.00	80	$ 8,000.00
	TRANSPORATION NAP TO SEA NORTHLAND		TON	$ 492.00	150	$ 73,800.00
	Final Survey	Mammoth	LS	$ 8,000.00	1	$ 8,000.00
						$ 129,250.00

Notes
Work Plan to be developed in accordance with 18 AAC 75.360.
Work Plan to be developed in accordance with 18 AAC 75.380.
ADEC data quality checklists will be required.
Project management time includes time to issue and manage the following subcontracts: analytical laboratory, civil, marine transport, and waste disposal.

ALTERNATIVE 2: ON SITE TREATMENT AND DISPOSAL
BASIS OF ESTIMATE AND ASSUMPTIONS

This estimate was developed based on the following considerations:

Raw Volume	Volume with Uncertainty Factor	
375	469	LCY of DRO contaminated soil (<1,000 mg/kg) to be used as landfill cover material
545	681	LCY of DRO contaminated soil to be used as landfill cover material following onsite mixing and treatment
80	100	LCY of highly DRO-contaminated soil would be shipped off site for disposal
1000	**1250**	Total volume (LCY) of soil requiring remediation

1.25 Uncertainty factor applied to volumes and areas
Contaminated soil (<1,000 mg/kg DRO) will be used directly as landfill cover material
Scope requires that the Napaskiak landfill be permitted
Only 100 cubic yards of highly contaminated soil will be shipped to a RCRA Subtitle D landfill
Remaining soil >1,000 mg/kg DRO will be mixed and treated on site prior to use as landfill cover
Soil is not RCRA hazardous.
Excavation confirmation samples will be analyzed for DRO/RRO, BTEX, and PAHs.
Excavation confirmation sample density will be one sample per 250 square feet of excavation floor.
Treatment confirmation will be based on analysis of samples for SPLP for BTEX and PAHs

This cost estimate is based on the following assumptions:
1.5 tons per cubic yard soil density
Soils < 1,000 mg/kg will be stockpiled at the landfill, approx. 900 feet south of the site for use as landfill cover material (by others)
Barge landing on the Napaskiak Slough just north of the site is practicable
Field equipment includes 1 excavator, 1 loader, 1 hopper, 2 dump trucks with trailers, port potty, 2 four-wheelers, and 2 six-wheelers.
Highly contaminated soils will be loaded into supersacks, the supersacks loaded into conexes, and the conexes shipped off site via barge.
The assumed backfill rate ($45 per ton) assumes locally available backfill.
Space is available at no cost for on site treatment
No liner will be placed beneath the treatment cell
It has been assumed that treatment will require monthly mixing over the course of two field seasons.
Assumes that equipment to turn soils will be available locally.
Treatment chemicals (lime, fertilizer, etc.) will not be required.
Assumes equipment mobilized separately.
Sewage solids in the lagoon will be treated with quicklime
Amount of Quick Lime 900 lbs
It has been assumed that labor on site for other purposes will be able to oversee testing of the treated biosolids (i.e. pH testing).

Berm material at the sewage lagoon will be sufficient material to backfill the lagoon and cover the biosolids.

On site biological treatment of soil contaminated at concentrations > 1,000 mg/kg was considered.
A budget of 100 cubic yards will be set for removal and offsite disposal of highly contaminated soil.
High contaminant concentrations (19,800 mg/kg at A2 and 26,100 mg/kg at D1) could make biological treatment problematic.
Concentrations above 25,000 mg/kg are generally considered toxic to the bacteria that would otherwise degrade the fuel.
Mixing will be used to dilute contaminant concentrations below the toxic threshold and allow biodegradation to commence.
The feasibility of on site treatment will be verified using pilot testing.

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 3: AGGRESSIVE ON SITE TREATMENT
NAPASKIAK SCHOOL REMEDIATION

ERS Role Description	ERS Contract Personnel	Contract Rate	Activity Description						Total Hours	Contract Rate Cost Summary
			Remediation Work Plan hours	Field Support hours	Remedial Action Report hours	Project Management hours	Landfill Permitting hours	Treatability Pilot Study hours		
OASIS Environmental Personnel										
PROJECT MANAGER		$ 123.65	10	30	10	80	5	8	143	$17,681.95
PROGRAM CHEMIST		$ 115.64	10		40		0		50	$5,781.88
ENVIRONMENTAL ENGINEER		$ 112.52	40		80	40	20	80	260	$29,255.20
									0	$0.00
ENVIRONMENTAL SCIENTISTS		$ 74.08	80	276	80			60	496	$36,743.28
		$ 98.79		132					132	$13,040.23
		$ 96.22	40	138	40	40	0	40	298	$28,673.80
		$ 60.57							0	$0.00
		$ 98.79					20		20	$1,975.79
									0	$0.00
OTHER PERSONNEL - Admin/Equip Support		$ 39.64				80			80	$3,171.17
OTHER PERSONNEL - Draftsperson		$ 90.66	20		20		0		40	$3,626.27
OTHER PERSONNEL - Tech Editor		$ 74.52	10		10		0		20	$1,490.32
								Total Design Labor		$141,439.89
SITE SUPERINTENDENTS		$ 113.25		132					132	$14,949.00
CRAFT LABOR - Operator		$ 90.15		276				60	336	$30,290.40
CRAFT LABOR - Operator		$ 90.15		110					110	$9,916.50
CRAFT LABOR - Laborer		$ 73.82							0	$0.00
CRAFT LABOR - Laborer		$ 73.82							0	$0.00
									0	$0.00
										$55,155.90
		Total OASIS	210	1094	280	240	45	248	2117	$196,595.79

			General Contractor	Design and Construction Oversight
TOTAL DIRECT LABOR COST		**$196,596**	$55,155.90	$141,439.89
G&A PRIME CONTRACTOR LABOR	Included in Rates Above	-		
PRIME CONTRACTOR DIRECT COST PLUS G&A		196,596		
FEE PRIME CONTRACTOR	10.00%	19,660	5,516	0
SUBTOTAL PRIME CONTRACTOR		216,255	60,671	141,440
TOTAL DIRECT MATERIALS, EQUIPMENT, AND OTHER Costs		198,802	198,802	
TOTAL SUBCONTRACTOR COST		35,650		35,650
G&A ON SUBCONTRACTORS AND ODCs	8.75%	20,515	17,395.16	
SUBCONTRACTOR COSTS PLUS OVERHEAD		**254,966**		
PROFIT ON SUBCONTRACTOR AND ODCs	8.00%	22,038	17,296	0
SUBTOTAL SUBCONTRACTOR		**277,005**		
GRAND SUBTOTAL		**493,260**	**294,164**	177,090
GENERAL LIABILITY INSURACE	0.97%	4,785	2,853	1,717.77
FINAL TOTAL TASK COST		**$ 498,045**	**$ 297,018**	**$ 178,808**

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 3: AGGRESSIVE ON SITE TREATMENT
NAPASKIAK SCHOOL REMEDIATION

Other Direct Costs

BSI						
Item #	**MATERIALS / EQUIPMENT**	Vendor	Unit Type	Rate	Quantity	Subtotal
All Sites	Equipment Day rate (Excavation)	Various	DAY	$ 4,163.39	15	$ 62,450.89
	Equipment Day rate (Treatment)	Various	DAY	$ 931.25	0	$ -
	Field Supplies (See attached breakdown)		LS	$ 12,238.00	1	$ 12,238.00
	SMALL TOOLS % OF LABOR	0.02	%			$ 3,931.92
	Repair and Maintenance of Heavy Equipment			$ 3,000.00	1	$ 3,000.00
	Supersacks	Unitech	ea	$ 22.00	0	$ -
	Mobe and Demobilization of heavy equipment		LS	$ 15,000.00	0	$ -
	Fuel (75 gallons per day each for excavator, loader, and 2 dump trucks)		GAL	$ 8.00	4500	$ 36,000.00
	Fuel (75 gallons per day each for loader)		GAL	$ 8.00	0	$ -
	Backfill		cy	$45.00	1250.00	$ 56,250.00
	Soil amendments		LS	$ 3,000.00	1.00	$ 3,000.00
	Quicklime		lbs	$ 3.00	900.00	$ 2,700.00
						$ 179,570.81
Item #	**OTHER**	Vendor	Unit Type	Unit Cost	Units	Subtotal
	Shipping There	Air/Marine	EA	$ 6.00	1	$ 6.00
	Shipping Home	Air/Marine	EA	$ 4.00	1	$ 4.00
	Certified scale		EA	$ 1,650.00	0	$ -
	Quicklime shipping			$ 1.50	900	$ 1,350.00
	Flight Anchorage to NAP	AA and Grant	EA	$ 738.00	7	$ 5,166.00
	Per diem	NA	Day	$ 71.00	105	$ 7,455.00
	Property Rentals for housing	CVRF	PPPD	$ 50.00	105	$ 5,250.00
						$ 19,231.00
Item #	**SUBCONTRACTORS**		Unit Type	Unit Cost	Units	Subtotal
	DISPOSAL		TON	$ 115.00	0	$ -
	PAPERWORK & MANIFESTING		LS	$ 300.00	0	$ -
	Analytical costs (breakdown attached)		LS	$ 19,650.00	1	$ 19,650.00
	Local Logistics and Facilities		Hrs	$ 100.00	80	$ 8,000.00
	TRANSPORATION NAP TO SEA NORTHLAND		TON	$ 492.00	0	$ -
	Final Survey	Mammoth	LS	$ 8,000.00	1	$ 8,000.00
						$ -
						$ 35,650.00

Notes
Work Plan to be developed in accordance with 18 AAC 75.360.
Work Plan to be developed in accordance with 18 AAC 75.380.
ADEC data quality checklists will be required.
Project management time includes time to issue and manage the following subcontracts: analytical laboratory, civil, marine transport, and waste disposal.

ALTERNATIVE 3: AGGRESSIVE ON SITE TREATMENT
BASIS OF ESTIMATE AND ASSUMPTIONS

This estimate was developed based on the following considerations:

Raw Volume	Volume with Uncertainty Factor	
375	469	LCY of DRO contaminated soil (<1,000 mg/kg) to be used as landfill cover material
625	781	LCY of DRO contaminated soil to be used as landfill cover material following onsite mixing and treatment
1000	**1250**	Total volume (LCY) of soil requiring remediation

1.25 Uncertainty factor applied to volumes and areas

Contaminated soil (<1,000 mg/kg DRO) will be used directly as landfill cover material

Scope requires that the Napaskiak landfill be permitted. However a inert waste monofill permit will be obtained for disposal of construction debris.

No contaminated soil will be shipped off site for disposal

Remaining soil will be mixed and amended and and placed as landfill cover

Cover material will be seeded and watered to promote plant growth

Biological treatment will occur as the soil is acting as landfill cover.

Soil is not RCRA hazardous.

Excavation confirmation samples will be analyzed for DRO/RRO, BTEX, and PAHs.

Excavation confirmation sample density will be one sample per 250 square feet of excavation floor.

Samples will be analyzed for SPLP for BTEX and PAHs prior to placing soil as cover material

This cost estimate is based on the following assumptions:

1.5 tons per cubic yard soil density

Soils < 1,000 mg/kg will be used as cover material at the landfill, approx. 900 feet south of the site.

Equipment is available at the site; no mobilization costs have been included.

Field equipment includes 1 excavator, 1 loader, 2 dump trucks with trailers, port potty, and 2 four-wheelers.

Highly contaminated soils will be mixed is small batches. Multi-incremental samples will be collected to confirm leachability has been reduced to acceptable levels. Then the soil will be spread as cover material.

The assumed backfill rate ($45 per ton) assumes locally available backfill.

Space is available at no cost for on site treatment

No liner will be placed beneath the soil being mixed

All work will be accomplished in a single field season.

Treatment chemicals (lime, fertilizer, etc.) will be used to encourage re-vegetation.

Feasibility will be varified using pilot testing.

Sewage solids in the lagoon will be treated with quicklime

Amount of Quick Lime 900 lbs

It has been assumed that labor on site for other purposes will be able to oversee testing of the treated biosolids (i.e. pH testing).

Berm material at the sewage lagoon will be sufficient material to backfill the lagoon and cover the biosolids.

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 4: IN PLACE LANDFARMING
NAPASKIAK SCHOOL REMEDIATION

ERS Role Description	ERS Contract Personnel	Contract Rate	Activity Description						Total Hours	Contract Rate Cost Summary
			Remediation Work Plan hours	Field Support hours	Remedial Action Report hours	Project Management hours	Monofill hours	Treatability Pilot Study hours		
OASIS Environmental Personnel										
PROJECT MANAGER		$ 123.65	5	10	5	40	5	0	65	$8,037
PROGRAM CHEMIST		$ 115.64	5		5		0		10	$1,156
ENVIRONMENTAL ENGINEER		$ 112.52	10		20	10	20	0	60	$6,751
									0	$0
ENVIRONMENTAL SCIENTISTS		$ 74.08	40		60			0	100	$7,408
		$ 98.79							0	$0
		$ 96.22	20	72	20	10	20	0	142	$13,663
		$ 60.57							0	$0
		$ 98.79					0		0	$0
									0	$0
OTHER PERSONNEL - Admin/Equip Support		$ 39.64				10			10	$396
OTHER PERSONNEL - Draftsperson		$ 90.66	10		10		0		20	$1,813
OTHER PERSONNEL - Tech Editor		$ 74.52	5		5		0		10	$745
							Total Design Labor			$39,971
SITE SUPERINTENDENTS		$ 113.25		120					120	$13,590
CRAFT LABOR - Operator		$ 90.15						0	0	$0
CRAFT LABOR - Operator		$ 90.15							0	$0
CRAFT LABOR - Laborer		$ 73.82							0	$0
CRAFT LABOR - Laborer		$ 73.82							0	$0
									0	$0
										$13,590
		Total OASIS	95	202	125	70	45	0	537	$53,561

			General Contractor	Design and Construction Oversight
TOTAL DIRECT LABOR COST		**$53,561**	$13,590.00	$39,970.79
G&A PRIME CONTRACTOR LABOR	Included in Rates Above	-		
PRIME CONTRACTOR DIRECT COST PLUS G&A		53,561		
FEE PRIME CONTRACTOR	10.00%	1,359	1,359	
SUBTOTAL PRIME CONTRACTOR		54,920	14,949	39970.79
TOTAL DIRECT MATERIALS, EQUIPMENT, AND OTHER Costs		130,513	127,131	3382
TOTAL SUBCONTRACTOR COST		8,000		8000
G&A ON MATERIALS, EQUIPMENT AND ODCs	8.75%	11,420	11,123.95	296
SUBCONTRACTOR COSTS PLUS OVERHEAD		**149,933**		
PROFIT ON SUBCONTRACTOR AND ODCs	8.00%	11,060	11,060	934
SUBTOTAL SUBCONTRACTOR		**160,993**		
GRAND SUBTOTAL		**215,913**	**164,264**	52,583
GENERAL LIABILITY INSURANCE	0.97%	2,094	1,593	510
FINAL TOTAL TASK COST		**$ 218,007**	**165,858**	**53,093**

REMEDIATION COST ESTIMATE SUMMARY
ALTERNATIVE 4: IN PLACE LANDFARMING
NAPASKIAK SCHOOL REMEDIATION

Other Direct Costs

Construction Contractor						
Item #	**MATERIALS / EQUIPMENT**	Vendor	Unit Type	Rate	Quantity	Subtotal
All Sites	Equipment Day rate (Excavation)	Various	DAY	$ 731.25	12	$ 8,775.00
	Equipment Day rate (4-wheeler)	Various	DAY	$ 100.00	4	$ 400.00
	Field Supplies (See attached breakdown)		LS	$ 1,206.00	1	$ 1,206.00
	SMALL TOOLS % OF LABOR	0.02	%			$ 1,071.22
	Repair and Maintenance of Heavy Equipment			$ 500.00	1	$ 500.00
	Supersacks	Unitech	ea	$ 22.00	0	$ -
	Mobe and Demobilization of heavy equipment		LS		0	$ -
	Fuel (75 gallons per day each for excavator, loader, and 2 dump trucks)		GAL	$ 8.00	0	$ -
	Fuel (75 gallons per day each for loader)		GAL	$ 8.00	900	$ 7,200.00
	Non-woven geotextile	Polar Supply	SF	$ 0.13	14425	$ 1,923.33
	Backfill		cy	$45.00	1068.52	$ 48,083.33
	Fill for sewage lagoon		cy	$45.00	0.00	$ -
	Soil amendments		LS	$ 5,000.00	1.00	$ 5,000.00
	Quicklime		lbs	$ 3.00	900.00	$ 2,700.00
						$ 76,858.88
Item #	**OTHER**	Vendor	Unit Type	Unit Cost	Units	Subtotal
	Shipping There	Air/Marine	EA	$ 4,000.00	1	$ 4,000.00
	Shipping Home	Air/Marine	EA	$ 250.00	1	$ 250.00
	Certified scale		EA	$ 1,650.00	0	$ -
	Quicklime shipping			$ 1.50	900	$ 1,350.00
	Flight Anchorage to NAP	AA and Grant	EA	$ 738.00	2	$ 1,476.00
	Mobilization fees		RT	$ 4,000.00	10	$ 40,000.00
	Per diem	NA	Day	$ 71.00	18	$ 1,278.00
	Fencing and signage		LS	$ 5,000.00	1	$ 5,000.00
	Property Rentals for housing	CVRF	PPPD	$ 50.00	6	$ 300.00
						$ 53,654.00
Item #	**SUBCONTRACTORS**		Unit Type	Unit Cost	Units	Subtotal
	DISPOSAL		TON	$ 115.00	0	$ -
	PAPERWORK & MANIFESTING		LS	$ 300.00	0	$ -
	Analytical costs (breakdown attached)		LS	$ 6,000.00	1	$ 6,000.00
	Local Logistics and Facilities		Hrs	$ 100.00	20	$ 2,000.00
	TRANSPORATION NAP TO SEA NORTHLAND		TON	$ 492.00	0	$ -
	Final Survey	Mammoth	LS	$ 8,000.00	0	$ -
						$ -
						$ 8,000.00

Notes
Work Plan to be developed in accordance with 18 AAC 75.360.
Work Plan to be developed in accordance with 18 AAC 75.380.
ADEC data quality checklists will be required.
Project management time includes time to issue and manage the following subcontracts: analytical laboratory, civil, marine transport, and waste disposal.

ALTERNATIVE 4: ON SITE LANDFARMING
BASIS OF ESTIMATE AND ASSUMPTIONS

This estimate was developed based on the following considerations:

Raw Volume	Volume with Uncertainty Factor	
1000	1250	LCY of DRO contaminated soil to be landfarmed in place

1.25 Uncertainty factor applied to volumes and areas

All containated soil within the top two feet of ground surface will be landfarmed in place

Scope does not require that the Napaskiak landfill be permitted for soil. However a permit for an inert waste monofill will be obtained.

No contaminated soil will be shipped off site for disposal

Soil will be mixed and amended,

Soil is not RCRA hazardous.

Treatment confirmation samples will be analyzed for DRO/RRO, BTEX, and PAHs.

Samples will also be analyzed for SPLP for BTEX and PAHs

This cost estimate is based on the following assumptions:

1.5 tons per cubic yard soil density

A tracked vehicle will be required to turn the soil. Mobilization and demobilization will cost $4000 per event.

Equipment operator will be a local hire or otherwise available locally on site.

An environmental consultant will be mobilized to the site to kickoff field work and again at the end of the field season to collect confirmation samples.

Field equipment includes 1 excavator. A four-wheelers will be used by the environmental consultant while on site.

Multi-incremental samples will be collected to assess treatment. The soil will be tilled every other week.

1/3 acre will be tilled/turned to a depth of 2 feet

No backfill will be required; however, it has been assumed that the site will be covered with 2 feet of fill material to prevent direct contact with the contaminated soil.

Space is available at no cost for on site treatment

No liner will be placed beneath the soil being treated. However a geotextile will be placed between the contaminated soil and the cover material.

All work will be accomplished in a single field season.

Work would be conducted after breakup (after ice dams breakup) to minimize risk of site flooding.

No commitment will be made to attain specified cleanup levels.

Treatment chemicals (lime, fertilizer, etc.) will be used to encourage biodegradation.

Feasibility will not be varified using pilot testing.

No land survey will be conducted.

Sewage solids in the lagoon will be treated with quicklime

Amount of Quick Lime 900 lbs

It has been assumed that labor on site for other purposes will be able to oversee testing of the treated biosolids (i.e. pH testing).

Berm material at the sewage lagoon will be sufficient material to backfill the lagoon and cover the biosolids.