

100.26.137

Alaska Resources and Environmental Services, LLC

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August 02, 2007

Mr. Jim Frechione
Alaska Department of Environmental Conservation
Northern Regional Office
Contaminated Sites Program
610 University Avenue
Fairbanks, Alaska 99709-3643

Subject: Kobuk Feed and Fuel Property Phase II ESA/ Release Investigation (ADEC case # 100.26.137).

Alaska Resources and Environmental Services, LLC, is submitting the enclosed Phase II ESA / Release Investigation for the former Kobuk Feed and Fuel property on behalf of the owner, Mr. Gary Lundgren. The Phase II ESA / Release Investigation was performed in response to the closure of four UST's located at 2751 Picket Place, Fairbanks, Alaska. Also included is the lab quality checklist.

Based on current site conditions, ARES is recommending additional site work (i.e. groundwater data), required to complete the Site Characterization. If you have any questions, I may be contacted at (907) 374-3226.

Sincerely,

Lyle Gresehover
Alaska Resources and Environmental Services, LLC

cc: Gary Lundgren

Laboratory Data Review Checklist

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes No

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

Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes No

Comments:

b. Correct analyses requested?

Yes No

Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No

Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No

Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No

Comments:

No adverse conditions noted.

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

Comments:

N/A

e. Data quality or usability affected? Explain.

Comments:

No data quality or usability affected.

4. Case Narrative

a. Present and understandable?

Yes No

Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes No

Comments:

c. Were all corrective actions documented?

Yes No

Comments:

N/A

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No data quality or usability affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes No

Comments:

b. All applicable holding times met?

Yes No

Comments:

c. All soils reported on a dry weight basis?

Yes No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes No

Comments:

e. Data quality or usability affected? Explain.

Comments:

No data quality or usability affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No

Comments:

ii. All method blank results less than PQL?

Yes No

Comments:

iii. If above PQL, what samples are affected?

Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No

Comments:

N/A

v. Data quality or usability affected? Explain.

Comments:

N/A

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples?

Yes No

Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes No

Comments:

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

Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes

No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes

No

Comments:

vii. Data quality or usability affected? Explain.

Comments:

Surrogate recoveries slightly higher than ADEC limits. No data quality or usability affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

Yes

No

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

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes

No

Comments:

iv. Data quality or usability affected? Explain.

Comments:

No. Surrogate recoveries were either slightly out of bounds, or high on samples with high levels of analyte

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and cooler?

Yes No

Comments:

ii. All results less than PQL?

Yes No

Comments:

iii. If above PQL, what samples are affected?

Comments:

N/A

iv. Data quality or usability affected? Explain.

Comments:

No data quality or usability affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No

Comments:

ii. Submitted blind to lab?

Yes No

Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil) $RPD (\%) = \text{Absolute Value of: } \frac{(R_1 - R_2)}{(R_1 + R_2)/2} \times 100$

Where R_1 = Sample Concentration

$((R_1 + R_2)/2)$

R_2 = Field Duplicate Concentration

Yes No

Comments:

17 of 18 RPD calculations <50%. One RPD is 51.26%.

iv. Data quality or usability affected?

Yes No

Comments:

No data quality or usability affected.

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No

Comments:

N/A

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? Explain.

Comments:

No data quality or usability affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No

Comments:

Completed by: Jason Gresehover

Title: Lab Technician

Date: 07/26/2007

CS Report Name: Kobuk Feed and Fuel

Report Date: 07/23/2007

Consultant Firm: Alaska Resources and Environmental Services, LLC.

Laboratory Name: Test America Analytical Testing

Laboratory Report Number: AQF0102

ADEC File Number: 100.26.137

ADEC RecKey Number:

Print Form

Version 2.1

Reset Form

Alaska Resources and Environmental Services, LLC
284 Topside Road, Fairbanks, Alaska 99701 (907) 374-3226

**PHASE II ENVIRONMENTAL SITE ASSESSMENT /
RELEASE INVESTIGATION REPORT
KOBUK FEED AND FUEL (FORMER) PROPERTY
2751 PICKET PLACE, FAIRBANKS, ALASKA**

JULY, 2007

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**BY
LYLE GRESEHOVER
PRINCIPAL INVESTIGATOR
ALASKA RESOURCES AND ENVIRONMENTAL SERVICES, LLC**

**FOR:
MR. GARY LUNDGREN
GLOBAL FINANCE AND INVESTMENT COMPANY, INC.**

Executive Summary

At the request of Mr. Gary Lundgren, owner of Global Finance and Investment Company, Inc., ARES was authorized to perform a Phase II Environmental Site Assessment (ESA) for the former Kobuk Feed and Fuel property located at 2751 Picket Place, Fairbanks, Alaska.

The Phase II ESA was conducted in response to the removal of three 10,000-gallon gasoline underground storage tanks (UST's) and a 5,000-gallon diesel UST which were decommissioned by removal in May, 2007 by Inland Petroservice Inc. The site characterization/release investigation included field screening and analytical sampling of surrounding soils. A total of 45 soil samples were collected and laboratory analyzed for DRO, GRO and BTEX constituents as part of the Phase II ESA/Release Investigation.

During excavation and removal of the four UST's, petroleum-contaminated soils were encountered of which approximately 2,190 cubic yards of contaminated soils were removed and stockpiled on-site for remediation by land farming in accordance with the ADEC approved Work Plan.

As confirmed by laboratory results, soil levels for GRO, DRO, and BTEX constituents were generally below ADEC target cleanup levels between the surface and 8' bgs on the sidewalls and end walls for both excavation pits to the north, east, and south. The lateral extent of contamination to the west however could not be determined. Laboratory results indicate petroleum- contaminated soils still remain along the west wall of the excavation. Excavation was forced to cease along the west wall once the property boundary limits were reached on the subject property.

The horizontal extent of contamination for the subject property is undetermined. Soils were excavated to a maximum depth of approximately 10' bgs. The seasonal high groundwater table for the surrounding area is generally 8' bgs. Sample results indicate that petroleum contaminated soils above ADEC target cleanup levels still exist within the vadose zone >8' below ground surface.

During excavation, a small amount of buried lead-acid battery residue was encountered. One analytical sample was collected and tested for lead. The sample results indicate that soils were below ADEC cleanup levels for lead. The batteries along with approximately 3 cubic feet of soil were transported to the hazardous waste site at the Fairbanks North Star Borough landfill for disposal.

ARES recommends the following actions:

1. Excavation was not able to proceed on the west wall of both excavation pits due to the property boundary limits of the subject property. Further collaboration between the owner of the subject property and the owner of the adjacent property

- to the west is required in order to obtain site access and remove soils above ADEC cleanup levels;
2. Based on analytical results contaminated soils remain at 5' bgs in the northeast corner of excavation pit # 1. Soils should be removed and landfarmed accordingly to complete lateral removal of contaminated material.
 3. Based on initial sample results and high levels of GRO, DRO, and BTEX that remain within the vadose zone, it is likely that groundwater has been impacted at this site. Groundwater data (groundwater samples and water quality measurements) should be collected in order to assess impacts to groundwater per ADEC regulations. Groundwater data should include up-gradient, source area, and down-gradient collection of groundwater samples/data. A Work Plan will have to be prepared and submitted for ADEC approval prior to installation of groundwater monitoring wells;
 4. Complete a well survey in order to identify potential receptors;
 5. Complete conceptual site model to assess potential impacts to human health;
 6. Due to high levels of contamination on the floor of the excavation pits, ARES recommends that for the immediate future, the excavation pits remain open to assist in aeration/remediation;
 7. Prepare and submit a Corrective Action Plan to address remaining on-site contamination; and
 8. Landfarmed petroleum-contaminated soils will require post sampling upon remediation per ADEC approved Corrective Action Work Plan (May 2007) to include the following:
 - Field screen samples will be collected on an annual basis and reported to ADEC until cleanup levels for soil are achieved. Final laboratory confirmation samples for GRO, DRO, and BTEX will be collected from the stockpile and the from the ground surface under the stockpile to ensure cleanup objectives are met; and
 - Upon meeting cleanup objectives, a final summary will be submitted to ADEC for site closure purposes.

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Purpose.....	1
1.2	Project Organization/Personnel.....	1
1.3	Scope of Work.....	2
2.0	SITE DESCRIPTION.....	3
2.1	Location.....	3
2.2	History.....	3
2.3	Topography, Geology, and Hydrology.....	3
3.0	SOIL SAMPLING.....	4
3.1	Field Screening.....	4
3.2	Field Observations.....	5
3.3	Landfarm.....	10
3.4	Sampling.....	11
3.5	ADEC Target Cleanup Levels.....	11
3.6	Lab Results for Soil Samples.....	13
4.0	QUALITY ASSURANCE and QUALITY CONTROL.....	16
5.0	CONCLUSIONS and RECOMMENDATIONS.....	17
6.0	LIMITATIONS OF INVESTIGATION.....	19

TABLES

Table 3.2.1	Field Screen Measurements Summary.....	6
Table 3.5.1	Target Soil Cleanup Levels.....	12
Table 3.5.2	Cleanup Score.....	12
Table 3.5.3	Cleanup Levels (BTEX Compounds).....	13
Table 3.5.1	Summary Analytical Results	14
Table 3.5.2	Summary Analytical Results For Lead.....	16
Table 4.0.1	Relative Percent Differences.....	17

APPENDICES

- Appendix A Mapping
- Appendix B Photographs
- Appendix C Analytical Results
- Appendix D Qualifications

ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
ARES	Alaska Resources and Environmental Services, LLC
bgs	Below Ground Surface
BTEX	Benzene, Tolulene, Ethylbenzene, Xylenes
COC	Chain of Custody
DRO	Diesel Range Organics
GRO	Gasoline Range Organics
HS	Headspace
na	Not Analyzed
ND	Non-Detect
PID	Photoionization Detector
PQL	Practical Quantitation Limit
QA	Quality Assurance
QC	Quality Control
RPD	Relative Percent Difference
TB	Trip Blank
UST	Underground Storage Tank

UNITS OF MEASUREMENT

cy	Cubic Yards
°C	Degrees Celsius
°F	Degrees Fahrenheit
mg/kg	Milligrams per Kilogram
ppm	Parts per Million
sf	Square Feet

1.0 INTRODUCTION

This report summarizes a Phase II Environmental Site Assessment (ESA) and Release Investigation conducted by Alaska Resources and Environmental Services, LLC (ARES) for the subject property located at 2751 Picket Place, Fairbanks, Alaska, formally referred to as Kobuk Feed and Fuel. The Phase II ESA was conducted in May-July 2007 at the request of Mr. Gary Lundgren, owner of Global Finance and Investment Company Inc. This report contains a summary of on-site work and includes field observations and analytical data from sampling activities. The subject property has an ADEC case number of 100.26.137. The ADEC facility ID # is 1173.

1.1 Purpose

The purpose of this project was to investigate the subsurface conditions following the removal of three (3) 10,000-gallon gasoline underground storage tanks (UST's) and one (1) 5,000-gallon diesel underground storage tank (UST). Field screen samples were collected in the vicinity of the UST's and were used to guide excavation activities. Subsurface soil samples were collected from the excavation sidewalls and bottom of excavation pits to determine final site conditions.

Fieldwork described in this report was conducted in accordance with 18 AAC 75 Oil and Other Hazardous Substances Pollution Control, as amended through May 26, 2004 and 18 AAC 78 Underground Storage Tanks as amended through January 30, 2003. ADEC's UST Procedures Manual as amended through November 7, 2002, was used as a guide for standard sampling procedures. Site characterization requirements are provided by ADEC in 18 AAC 75, Articles 3 and 9 Discharge Reporting, Cleanup, and Disposal of Oil and Other Hazardous Substances and General Provisions as amended through May 26, 2004. Soil and water cleanup levels are also provided according to 18 AAC 75. Mr. Lyle Gresehover, Principle Investigator/Geologist for ARES, conducted the field investigation. Mr. Gresehover is listed as a Qualified Person by the Alaska Department of Environmental Conservation (ADEC) under 18 AAC 78.

1.2 Project Organization/Personnel

Mr. Lyle Gresehover is the point of contact for this project and may be contacted at Alaska Resources & Environmental Services, LLC, P.O. Box 83050 Fairbanks, Alaska 99708. The telephone number for Mr. Gresehover is (907) 374-3226. Mr. Gresehover conducted the Phase II ESA in May-July, 2007.

Inland Petroservice Inc. provided certified UST personnel to decommission the UST's and equipment and operators to stockpile petroleum- contaminated soils found at the site. The mailing address for Inland Petroservice Inc. is 3690 Braddock Street, Fairbanks Alaska, 99701. The telephone number for Inland Petroservice Inc. is (907) 451-1905.

Test America of 2000 W International Airport Road Suite A10, Anchorage, Alaska 99502-1119, performed laboratory analysis of soil samples. Test America is approved by

ADEC to provide testing of soil and water for hazardous substances and petroleum related contaminants.

The Phase II ESA/Release Investigation was completed in June 2007, by Mr. Lyle Gresehover Project Manager/ Geologist for ARES. Mr. Gresehover is listed as a Qualified Person by the Alaska Department of Environmental Conservation (ADEC) under 18 AAC 78. The mailing address for ARES is P.O. Box 83050 Fairbanks, Alaska 99708. The contact number is (907) 374-3226. Statement of Qualifications for Mr. Lyle Gresehover is included in Appendix D.

1.3 Scope of Work

In summary Inland Petroservice Inc., performed the following activities:

- Excavation and removal of four UST's located on-site. Decommissioning included removal of tank and all associated piping; and
- Excavation and stockpiling of petroleum contaminated soils for remediation by land farming.

In summary Test America, performed the following activities:

- Conducted laboratory analysis of soil samples. All samples were analyzed for GRO using method AK 101, DRO by method AK 102, and BETX by method EPA 8021B. Laboratory quality control and quality assurance was also completed.
- One soil ample was analyzed for lead by method EPA 6020.

In summary ARES performed the following activities:

- Monitored the removal of the four UST's and guided excavation of contaminated soils. ARES personnel were on-site throughout the project;
- Obtained field measurements to include site plan, location of tank, PID field screening measurements, and soil sample locations. Documented site activities with digital photographs;
- Prepared and submitted ADEC Work Plan;
- Collection of soil samples for laboratory analysis including field duplicates;
- Performed Site Characterization and Release Investigation as past of the Phase II ESA report; and
- Prepared and submitted Final Report.

These activities are intended to satisfy requirements listed in 18 AAC 75 for Site Characterization and Release Investigation.

2.0 SITE DESCRIPTION

2.1 Location

The property located at 2751 Picket Place is an industrial lot of approximately 109,335 square feet in size. The lot contains a gravel parking lot with no structures. See Figure 3 for tank locations. The legal description for the site is: Tax Lot 1740 Section 17 Township 1 South Range 1 West. The GPS coordinates for the site are N 64° 49.38', W - 147° 47.25'. The elevation of the site is 439' above mean sea level.

2.2 History

The subject property was formerly a commercial agricultural feed and fuel supply facility referenced as Kobuk Feed and Fuel. It was owned and operated by Ken Ulz, who declared bankruptcy in 1993. A Phase I Site Assessment was reportedly conducted in 1993 by a prospective purchaser and a UST system was identified with fuel reportedly still in the tanks. There had been numerous surface spills and/or releases of fuel product reported at the site with an estimated 620 cubic yards of soil possibly impacted. There was no investigation of subsurface soils associated with potential leaks from the tanks and subsurface piping.

The property was transferred to the Alaska Department of Natural Resources (ADNR) as a result of a failure to fulfill the requirements of an Agriculture Revolving Loan Fund agreement. ADNR then offered the property for sale in 1996 "as is, where is" by sealed competitive bid. The successful bidder was Global Finance and Investment Co. The current records indicate it is now co-owned by Global Finance and Investment Co. and Castle Residence Inns, Inc.

According to Inland Petroservice Inc. personnel, the remaining fuel in the UST's was removed in 2005 by Inland Petroservice Inc.

2.3 Topography, Geology and Hydrogeology

Topography

The United States Geological Survey (USGS) Fairbanks Quadrangle (D-2) SW provides topographic map coverage of the site (Figure 1). Fairbanks is located in the northern part of the Tanana Basin, which is a relatively flat floodplain of the Tanana River. The subject property is situated approximately 2.5 miles north of the Tanana River and 1.5 miles south of the Chena River. Based upon the topographic map of the Fairbanks Quadrangle, the site elevation is approximately 439 feet above the mean sea level.

Regional Soils/Geology

Soils in the area are derived from the alluvial-plain deposits and generally consist of alternating layers and lenses of unconsolidated sandy gravels and gravely sands, overlain

the most extensive soils of the alluvial plains. The site is underlain by Minto silt loam. The Minto soils consist of moderately well drained soils that have developed into micaceous silty material with many areas underlain at a depth of 6 feet or more by irregular, discontinuous masses of ice. Discontinuous permafrost underlies the floodplain area and can extend to depths of 200 feet or more. The hills to the north of the site area are part of a metamorphic system that forms the Yukon – Tanana Upland. The basin uplands consist of fractured schist. Areas of discontinuous permafrost underlie north-facing slopes. Eolian silts of the Fairbanks Loess and reworked silt deposits cover the flanks of bedrock uplands in the proximity of the Tanana River. These deposits vary in thickness and grade into alluvial-fan deposits and the Chena Alluvium.

Site Soils

Soils encountered during excavation and collection of soil samples consisted primarily of silty and sandy coarse gravels with interbedded layers of finely graded sand. An intermittent silty-clay layer was also observed. The depth of excavation was approximately 10 feet bgs.

Regional Hydrology

The Tanana River is the dominant influence on ground-water flow in the subject area. Two discharge peaks characterize the Tanana River: spring snowmelt runoff and late summer precipitation. The stage of nearby water bodies such as Chena Slough and Chena River typically rises and falls in response to stage changes of the Tanana River. The depth to groundwater varies in response to these controlling factors. Based on interpretation of USGS data, regional groundwater flow direction is generally to the west. However, the direction of flow can vary depending upon the stage of the Tanana River. The seasonal high groundwater table for the surrounding area is generally 8' bgs.

Site Hydrology

No groundwater data was collected as part of this investigation. Groundwater elevation in the area is generally 10-12' bgs. Groundwater infiltration and seepage was observed during excavation. Based on data provided from area monitoring wells, the groundwater flow is to the west direction.

3.0 SOIL SAMPLING

3.1 Field Screening

Three hundred forty five headspace samples were collected and measured during the site investigation. ARES used a MiniRAE 2000 PID (Serial No. PGM7600-110-002244). The PID was used for headspace screening of samples according to ADEC field screening procedures. The PID was calibrated prior to each period of use to 0 parts per

million (ppm) free air and 100 ppm isobutylene calibration gas, using a response factor of 1.0.

Headspace screening was conducted as follows: Soil samples were transferred directly into a ziplock-type bag. Each bag was filled one-third to one half full, then warmed for 15 to 20 minutes. Temperatures of the soil in the bag were warmed to at least 16°C (60 °F). Samples were agitated at the beginning and end of the warming period inside the bag to enhance volatilization. The bags were partially opened after the warming and the VOCs in the headspace above the soil were sampled by inserting the PID probe. The highest meter reading obtained was recorded.

3.2 Field Observations

Weather conditions during fieldwork conducted in May - July 2007 consisted of sunny skies to rainy with winds 0-10 miles per hour. The temperature ranged from 50 ° F – 85 ° F.

Field screen samples were collected in conjunction with excavation activities and used as an indicator to direct depth and extent of excavation (Figures 4, 5). Excavated soils that had PID readings > 25.0 ppm were considered contaminated and stockpiled in the landfarm area. Petroleum-contaminated soils were encountered during the excavation and removal of all four UST's. Staining of soil was observed, however, no free product was encountered during excavation. Both diesel and gasoline odors were detected during removal of soils. Groundwater was encountered at approximately 10' bgs with a visible sheen.

During excavation, a small amount of buried lead-acid battery residue was encountered. One analytical sample (KFF-BS1-62007) was collected and tested for lead. The sample results indicate that soils were below ADEC cleanup levels for lead. The batteries along with approximately 3 cubic feet of soil were transported to the hazardous waste site at the Fairbanks North Star Borough landfill for disposal. See Figure 3 for location of buried batteries.

Excavation was forced to cease within 6 feet of the west property boarder / fence to prevent structural instability of the fence. Field screen measurements and soil sample results indicate that petroleum-contaminated soils remain along the west wall from near surface to 10' bgs.

Inspection of the UST's upon removal did not reveal visible structural tank degradation. Surface rust and pitting was observed on all tanks. It was also noted that one 10,000-gallon UST had bung holes on the bottom of the tank indicating that it was an improperly installed tank and that it should have used for as an above ground storage tank (AST) only.

A total of 354 soil field screen samples were collected as part of the Release Investigation. Filed screen results are shown in Table 3.2.1.

Table 3.2.1
Field Screen Measurements Summary
(Results displayed in ppm)

2751 Picket Place Field Screening Results						
Sample ID	Depth (feet)	PID (ppm)		Sample ID	Depth (feet)	PID (ppm)
1	3	4619		40	4	14.8
2	4	2952		41	4	31.2
3	5	203		42	4	17.6
4	5	12.2		43	4	11.2
5	6	33.6		44	4	3.1
6	6	1495		45	4	1.6
7	6	2774		46	4	2.2
8	6	1734		47	10	292
9	6	1299		48	10	65.9
10	5	887		49	10	118
11	5	203		50	10	2563
12	4	1347		51	7	2426
13	4	786		52	8	619
14	7	1764		53	8	1265
15	7.5	2.7		54	10	1774
16	4	352		55	10	1938
17	6	2061		56	10	879
18	7	182		57	10	852
19	7	2069		58	10	1565
20	6	3559		59	6	1794
21	7	1554		60	6	1624
22	7	2086		61	6	1135
23	7	2357		62	6	35
24	7	2336		63	6	988
25	8	1296		64	6	905
26	8	2369		65	10	1162
27	8	1789		66	6	394
28	10	996		67	10	1759
29	8	2628		68	6	935
30	8	1744		69	10	968
31	10	1958		70	6	3116
32	10	218		71	6	1718
33	4	72.3		72	6	892
34	4	71.1		73	10	1492
35	4	22.8		74	6	60.8
36	4	3.1		75	6	84.2
37	4	3.2		76	6	103
38	4	6.1		77	8	1649
39	4	26.7		78	10	1654

Table 3.2.1 Cont.
Field Screen Measurements Summary
(Results displayed in ppm)

2751 Picket Place Field Screening Results						
Sample ID	Depth (feet)	PID (ppm)		Sample ID	Depth (feet)	PID (ppm)
79	10	1958		118	9	874
80	3	499		119	4	550
81	5	180		120	6	13
82	7	500		121	8	143
83	5	50		122	5	50
84	10	1580		123	5	>1000
85	5	18		124	8	>1000
86	10	10		125	2	347
87	4	26		126	5	118
88	4	165		127	5	0
89	5	50.5		128	5	6
90	8	31.2		129	5	12
91	5	923		130	5	379
92	8	1156		131	5	5
93	5	105		132	5	4
94	8	1125		133	4	0
95	5	15.7		134	5	12
96	8	1694		135	5	415
97	5	41.4		136	5	2
98	8	394		137	5	2
99	10	1739		138	5	3
100	10	629		139	5	0
101	5	1938		140	5	15
102	8	1769		141	5	0
103	8	334		142	3	0
104	8	122		143	1	0
105	2	5		144	3	278
106	2	0		145	3	4
107	2	0		146	3	175
108	2	0		147	5	252
109	5	257		148	8	50
110	5	986		149	4	20
111	8	>1000		150	5	28
112	8	16		151	8	15
113	10	514		152	5	84
114	8	513		153	8	21
115	8	501		154	5	34
116	8	0		155	8	21
117	8	272		156	3	79

Table 3.2.1 Cont.
Field Screen Measurements Summary
(Results displayed in ppm)

2751 Picket Place Field Screening Results						
Sample ID	Depth (feet)	PID (ppm)		Sample ID	Depth (feet)	PID (ppm)
157	6	20		196	2	0
158	8	16		197	3	146
159	3	96		198	3	268
160	5	7		199	4	0
161	5	88		200	6	0
162	8	102		201	3	0
163	5	800		202	6	0
164	8	33		203	4	0
165	5	249		204	2	0
166	8	968		205	5	0
167	5	184		206	2	0
168	3	2		207	8	191
169	5	2		208	8	373
170	3	6		209	8	411
171	5	3		210	8	21
172	8	5		211	8	0
173	5	6		212	4	417
174	8	3		213	8	28
175	2	24		214	8	61
176	6	29		215	9	150
177	8	21		216	9	0
178	4	59		217	5	113
179	8	4		218	8	12.2
180	3	114		219	5	94.9
181	3	174		220	8	21.0
182	4	240		221	5	165
183	4	12		222	8	24.6
184	4	15		223	5	12.1
185	8	20		224	8	117
186	5	815		225	5	18.6
187	5	73		226	8	31.3
188	5	15		227	5	25.5
189	5	3		228	8	632
190	5	0		229	5	8.6
191	5	142		230	8	293
192	5	147		231	5	29.8
193	5	152		232	8	142
194	5	15		233	5	38.9
195	5	0		234	8	76.2

Table 3.2.1 Cont.
Field Screen Measurements Summary
(Results displayed in ppm)

2751 Picket Place Field Screening Results						
Sample ID	Depth (feet)	PID (ppm)		Sample ID	Depth (feet)	PID (ppm)
235	5	1480		274	8	13.9
236	8	1594		275	5	7.0
237	5	73.8		276	8	74.8
238	8	216		277	10	1968
239	5	107		278	10	224
240	8	48.8		279	10	1694
241	10	25		280	10	1485
242	10	485		281	10	1555
243	10	187		282	10	284
244	10	830		283	10	12.6
245	9	105		284	10	243
246	9	209		285	10	148
247	5	6.1		286	10	146
248	8	13.4		287	10	110
249	5	6.7		288	10	157
250	8	237		289	10	277
251	5	8.3		290	10	1928
252	8	34.9		291	10	448
253	5	8.0		292	10	945
254	8	60.3		293	10	742
255	5	25.9		294	10	495
256	8	27.5		295	10	560
257	5	25.5		296	10	541
258	8	477		297	10	51.7
259	5	25.5		298	10	285
260	8	2247		299	10	421
261	5	21.2		300	10	329
262	8	1204		301	10	317
263	5	16.8		302	10	208
264	8	2045		303	10	138
265	5	14.5		304	10	481
266	8	18.0		305	10	557
267	5	21.3		306	10	346
268	8	116		307	10	700
269	5	14.3		308	10	1042
270	8	89.4		309	5	23.4
271	5	29.8		310	8	19.7
272	8	14.8		311	5	20.0
273	5	19.1		312	8	28.0

Table 3.2.1 Cont.
Field Screen Measurements Summary
(Results displayed in ppm)

2751 Picket Place Field Screening Results						
Sample ID	Depth (feet)	PID (ppm)		Sample ID	Depth (feet)	PID (ppm)
313	5	19.8		330	8	36.9
314	8	912		331	5	16.4
315	5	105		332	8	17.1
316	8	151		333	5	11.9
317	5	2336		334	8	9.2
318	8	466		335	5	22.1
319	5	495		336	8	22.6
320	8	104		337	5	23.4
321	5	363		338	8	45.4
322	8	46.1		339	5	357
323	5	14.6		340	8	75.9
324	8	31.9		341	5	20.7
325	5	22.9		342	5	125
326	8	18.7		343	10	28.4
327	5	9.7		344	9	65.5
328	8	11.3		345	9	29.7
329	5	23.4				

3.3 Landfarm

Contaminated soils were stockpiled on created landfarm located on-site with access limited by a locked chain-link fence. Appropriate separation distances between private water wells and/or surface water bodies were also adhered too to prevent contamination of surface water and/or groundwater.

Two soil stockpiles, one approximately 770 cubic yards and one containing approximately 1,420 cubic yards of petroleum-contaminated soils were created along the northern edge of the subject property for remediation by landfarming.

The contaminated soil was placed on an approved 20-mil bottom liner for long-term storage of material (> 180 days) with bermed sides to prevent migration of contaminants. Due to space constraints, the soil was stacked to a height of 9'.

To aid in biological degradation, passive aeration was incorporated into the landfarm by placing perforated 4" leach-field pipe horizontally through the stockpile every 8 feet. The pipe was placed in two foot lifts and extended out both sides of the stockpile, thus providing an open air circuit thru the contaminated material. The soil was tested for pH and adjusted accordingly by adding lime along with nutrients (30-30-10 fertilizer) to aid in biological activity and degradation.

3.4 Sampling

Twenty two (22) soil laboratory analytical samples were collected on June 15, 2007 from excavation pit number one in the vicinity of the 10,000-gallon and 5,000-gallon UST's, and thirteen (13) soil samples on June 15, 2007 from excavation pit number two near the vicinity of the two 10,000-gallon UST's. Samples consisted of grab samples and were analyzed for GRO by method AK 101, DRO by method AK 102, and BTEX compounds by method EPA 8021B. Sample ID's # KFF-DUP1-62007 through KFF-DUP4-62006 were blind duplicates respectively to Sample ID numbers KFF-3-62007, KFF-27-62007, KFF-30-62007, and KFF-5-62007 for QA/QC purposes. All soil samples were collected at a depth of 8' – 10' bgs. Ten composite samples were collected on June 16, 2007 from the soil stockpiles/landfills. Sample locations collected for laboratory analysis are shown in Figures 4, 5 and 6.

Soil samples were placed into certified clean glass jars provided by Test America. Soil samples were handled using disposable Nitrile gloves. To comply with the UST Procedures Manual for VOC samples, 25 milliliters of a methanol/surrogate was carefully added to the undisturbed soil in the partially filled pre-weighted sample jar so that the sample was completely submerged. A 40-milliliter sample jar of soil was also collected from each soil boring in order to determine total percent solids. Sample jars were properly labeled and placed into a pre-chilled cooler. The chilled temperature within the cooler was maintained at approximately 4°C using frozen gel packages during transportation to the laboratory. A signed Chain-of-Custody (COC) form accompanied the samples to Test America. The COC is attached to Test America's Lab Report. See Appendix C.

3.5 ADEC Target Cleanup Levels

Target cleanup levels for the subject property were determined using AAC 75 (Method One) Soil Cleanup Levels. The cleanup score using Method One is shown in Table 3.5.1

**Table 3.5.1
 Target Soil Cleanup Levels**

Method One Cleanup Matrix Score Sheet			
Category	Description	Value	Site Score
1. Depth to Groundwater	Less than 5 feet	10	8
	5 - 15 feet	8	
	16 - 25 feet	6	
	26 - 50 feet	4	
	More than 50 feet	1	
2. Mean Annual Precipitation	More than 40 inches	10	3
	26 - 40 inches	5	
	16 - 25 inches	3	
	Less than 15 inches	1	
3. Soil Type	Clean, coarse-grained soils	10	8
	Coarse-grained soils with fines	8	
	Fine-grained soils (low organic carbon)	3	
	Fine-grained soils (high organic carbon)	1	
4. Potential Receptors	Public Water system within 1000 feet, or private water system within 500 feet	15	8
	Public/private water system within 1/2 mile	12	
	Public/private water system within one mile	8	
	No water system within one mile	4	
	Nonpotable groundwater	1	
5. Volume of Contaminated Soil	More than 500 cubic yards (estimated)	10	10
	101 - 500 cubic yards	8	
	26 - 100 cubic yards	5	
	10 - 25 cubic yards	2	
	Less than 10 cubic yards	0	
Total Cleanup Matrix Score			37

Based on a matrix score of 37, the applicable cleanup category for the UST site is Level B as shown in Table 3.5.2

**Table 3.5.2
 Cleanup Score**

Method One GRO, DRO Cleanup Levels			
Matrix Score	Category	GRO in mg/kg	DRO in mg/kg
>40	A	50	100
26-40	B	100	200
21-26	C	500	1000
<21	D	1000	2000

**Table 3.5.3
 Cleanup Levels
 (BTEX Compounds)**

Table B1 Method Two			
	Under 40 Inch Zone		
	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)
Benzene	290	9	0.02
Tolulene	20,300	180	5.4
Ethylbenzene	10,000	89	5.5
Total Xylenes	203,000	81	78

3.6 Lab Results for Soil Samples

The laboratory results from soil laboratory analytical samples collected from the excavated UST sites are summarized below in Table 3.5.1. Laboratory results from the area containing battery residue is summarized in Table 3.5.2. Laboratory sample locations are shown in Figures 4, 5 and 6. Test America lab results are included in Appendix C.

Sample results indicate high levels of contamination remain within the vadose zone (>8 feet below ground surface) and along the west wall of both excavation pits. Sample KFF-18-62007 also shows an area with remaining soils in place above ADEC target cleanup levels for GRO, DRO, and benzene in the north-east corner (Excavation pit # 1) at 5' bgs (Figure 4). Based on analytical results, all remaining sidewalls and end walls to the north, east, and south were generally below ADEC target cleanup levels for GRO, DRO, and BTEX between the surface and 8' bgs.

Table 3.6.1
Summary of Analytical Results
2751 Picket Place, Fairbanks, Alaska

Sample ID	Matrix	Depth in Feet bgs	EPA Method 8021B				Alaska Method AK 101	Alaska Method AK 102
			Benzene in mg/kg	Toluene in mg/kg	Ethylbenzene in mg/kg	Total xylenes in mg/kg	GRO in mg/kg	DRO in mg/kg
KFF-1-62007	Soil	5	ND	ND	ND	ND	ND	ND
KFF-2-62007	Soil	8	0.0419	ND	0.0372	0.190	13.3	181
KFF-3-62007	Soil	5	12.6	35.7	29.8	116	1480	11200
KFF-4-62007	Soil	8	0.810	0.957	0.742	7.81	239	3960
KFF-5-62007	Soil	5	0.0357	ND	ND	ND	ND	ND
KFF-6-62007	Soil	8	ND	ND	ND	ND	ND	ND
KFF-7-62007	Soil	5	ND	ND	ND	ND	ND	47.8
KFF-8-62007	Soil	8	ND	ND	ND	ND	ND	ND
KFF-9-62007	Soil	10	ND	0.0270	0.0850	1.85	42.4	940
KFF-10-62007	Soil	10	ND	0.0444	0.786	3.55	57.7	185
KFF-11-62007	Soil	10	0.0438	0.0262	0.800	3.65	63.5	2640
KFF-12-62007	Soil	5	0.178	ND	0.282	0.940	38.5	2140
KFF-13-62007	Soil	5	0.0556	0.0686	0.109	2.34	64.2	3580
KFF-14-62007	Soil	8	36.0	97.0	58.5	264	2180	6960
KFF-15-62007	Soil	8	0.812	0.858	2.45	12.9	292	802
KFF-16-62007	Soil	5	0.166	0.0638	0.0797	0.403	10.0	ND
KFF-17-62007	Soil	8	1.10	1.86	8.14	61.9	989	2510
KFF-18-62007	Soil	5	0.0787	0.225	1.04	6.27	342	316
KFF-19-62007	Soil	8	1.51	0.174	2.09	7.52	266	1660
KFF-20-62007	Soil	10	0.812	5.69	1.52	14.1	131	6130
KFF-21-62007	Soil	10	19.1	142	59.3	335	2520	11700
KFF-22-62007	Soil	5	ND	ND	ND	ND	ND	ND
KFF-23-62007	Soil	8	0.0373	0.0898	0.238	0.319	23.8	175
ADEC Cleanup Level ¹			0.02	5.4	5.5	78	100	200

¹ Title 18 of the Alaska Administrative Code, Chapter 75. Section 341.

ND= Not detected at the Method Reporting Limit.

Results above ADEC Regulatory Limit in **Bold**.

Table 3.6.1 cont.

Sample ID	Matrix	Depth in Feet bgs	EPA Method 8021B				Alaska Method AK 101	Alaska Method AK 102
			Benzene in mg/kg	Toluene in mg/kg	Ethylbenzene in mg/kg	Total xylenes in mg/kg	GRO in mg/kg	DRO in mg/kg
KFF-24-62007	Soil	5	ND	ND	ND	ND	ND	ND
KFF-25-62007	Soil	8	1.89	3.71	6.53	22.3	403	378
KFF-26-62007	Soil	5	ND	ND	ND	ND	ND	ND
KFF-27-62007	Soil	8	2.22	15.8	13.6	63.9	641	2720
KFF-28-62007	Soil	5	0.0598	ND	ND	ND	ND	ND
KFF-29-62007	Soil	8	0.414	ND	ND	0.0939	5.34	ND
KFF-30-62007	Soil	10	19.1	20.3	11.1	79.4	710	9300
KFF-31-62007	Soil	10	47.6	209	49.5	224	1510	2480
KFF-DUP1-62007 Field Duplicate of sample KFF-3-62007	Soil	5	18.4	54.3	41.7	160	1040	11800
KFF-DUP2-62007 Field Duplicate of sample KFF-27-62007	Soil	8	3.75	25.2	20.9	101	1010	2190
KFF-DUP3-62007 Field Duplicate of sample KFF-30-62007	Soil	10	24.6	24.8	10.9	77.4	722	12900
KFF-DUP4-62007 Field Duplicate of sample KFF-5-62007	Soil	5	ND	ND	ND	ND	ND	ND
KFF-SS1-62007	Soil	1	1.20	6.54	5.27	24.1	253	1380
KFF-SS2-62007	Soil	1	2.75	17.4	10.1	53.2	392	1320
KFF-SS3-62007	Soil	1	ND	ND	4.17	117	939	2120
KFF-SS4-62007	Soil	1	8.05	63.1	6.28	267	1210	1530
KFF-SS5-62007	Soil	1	8.35	53.9	11.5	108	789	2140
KFF-SS6-62007	Soil	1	1.47	4.17	10.3	65.5	534	25800
KFF-SS7-62007	Soil	1	7.80	29.0	16.0	74.9	892	2790
KFF-SS8-62007	Soil	1	0.710	2.16	1.86	13.6	77.5	2170
KFF-SS9-62007	Soil	1	9.24	35.1	13.7	94.2	719	3930
KFF-SS10-62007	Soil	1	0.294	0.416	2.08	10.4	359	5290
ADEC Cleanup Level ¹			0.02	5.4	5.5	78	100	200

¹ Title 18 of the Alaska Administrative Code, Chapter 75, Section 341.

ND= Not detected at the Method Reporting Limit.

Results above ADEC Regulatory Limit in **Bold**.

Table 3.6.2
Summary of Analytical Results for Lead
2751 Picket Place, Fairbanks, Alaska

Sample ID	Matrix	Depth in feet bgs	EPA Method 6020
			Lead in mg/kg
KFF-BS1-62007	Soil	2	83.2
ADEC Cleanup Level ¹			400

¹ Title 18 of the Alaska Administrative Code, Chapter 75, Section 341.
 ND= Not detected at the Method Reporting Limit.
 Results above ADEC Regulatory Limit in **Bold**.

4.0 QUALITY ASSURANCE AND QUALITY CONTROL

Field quality control (QC) procedures for this project included the collection and analysis of field duplicates and two trip blanks for soil samples, which accompanied the samples in the field. Four blind field duplicates were collected for quality control purposes. The QC samples were analyzed to assess the quality of sample collection and handling, as well as the accuracy and precision of the laboratory's analytical procedures.

Precision, expressed as the relative percent difference (RPD) between field duplicate sample results, is an indication of the consistency of sampling, sample handling, preservation, and laboratory analysis. As required by the 18 AAC 78 and the UST Procedures Manual, field quality control sampling consisted of 10% field duplicates and 5% trip blanks. Analysis of the trip blanks showed no analytes above the practical quantitation limit (PQL). Thus, there is no indication that cross-contamination among samples occurred.

The RPD for KFF-DUP4-62007 was not calculable due to non-detect values for one or both samples. The RPD was calculated for DRO, GRO, Benzene, Toluene, Ethel-Benzene, and Total Xylenes and is as follows:

Table 4.0.1
Relative Percent Differences
2751 Picket Place, Fairbanks, Alaska

Sample ID	Compound	Equation	RPD
KFF-3-62007 & KFF-DUP1-62007	DRO	$(11800 - 11200) / [(11800 + 11200)/2] \times 100 =$	5.21%
	GRO	$(1480 - 1040) / [(1480 + 1040)/2] \times 100 =$	34.92%
	Benzene	$(18.4 - 12.6) / [(18.4 + 12.6)/2] \times 100 =$	3.74%
	Toluene	$(54.3 - 35.7) / [(54.3 + 35.7)/2] \times 100 =$	41.33%
	Ethel-Benzene	$(41.7 - 29.8) / [(41.7 + 29.8)/2] \times 100 =$	33.28%
	Total Xylenes	$(160 - 116) / [(160 + 116)/2] \times 100 =$	31.88%
KFF-27-62007 & KFF-DUP2-62007	DRO	$(2720 - 2190) / [(2720 + 2190)/2] \times 100 =$	21.59%
	GRO	$(1010 - 641) / [(1010 + 641)/2] \times 100 =$	44.70%
	Benzene	$(3.75 - 2.22) / [(3.75 + 2.22)/2] \times 100 =$	51.26%
	Toluene	$(25.2 - 15.8) / [(25.2 + 15.8)/2] \times 100 =$	45.85%
	Total Xylenes	$(101 - 63.9) / [(101 + 63.9)/2] \times 100 =$	44.99%
KFF-30-62007 & KFF-DUP3-62007	DRO	$(12900 - 9300) / [(12900 + 9300)/2] \times 100 =$	32.43%
	GRO	$(722 - 710) / [(722 + 710)/2] \times 100 =$	1.68%
	Benzene	$(24.6 - 19.1) / [(24.6 + 19.1)/2] \times 100 =$	25.17%
	Toluene	$(24.8 - 20.3) / [(24.8 + 20.3)/2] \times 100 =$	19.96%
	Total Xylenes	$(79.4 - 77.4) / [(79.4 + 77.4)/2] \times 100 =$	2.55%

Laboratory quality assurance included the procedures outlined in the laboratory's ADEC-approved standard operating procedures documentation.

5.0 CONCLUSIONS AND RECOMMENDATIONS

At the request of Mr. Gary Lundgren, owner of Global Finance and Investment Company, Inc., ARES was authorized to perform a Phase II Environmental Site Assessment (ESA) at the property located at 2751 Picket Place, Fairbanks, Alaska.

The Phase II ESA was conducted in response to the removal of three 10,000-gallon gasoline underground storage tanks (UST's) and a 5,000-gallon diesel UST which were decommissioned by removal in May, 2007 by Inland Petroservice Inc. The site characterization/release investigation included field screening and analytical sampling of surrounding soils. A total of 45 soil samples were collected and laboratory analyzed for DRO, GRO and BTEX constituents as part of the Phase II ESA/Release Investigation.

During excavation and removal of the four UST's, petroleum-contaminated soils were encountered of which approximately 2,190 cubic yards of contaminated soils were removed and stockpiled on-site for remediation by land farming in accordance with the ADEC approved Work Plan.

As confirmed by laboratory results, soil levels for GRO, DRO, and BTEX constituents were generally below ADEC target cleanup levels between the surface and 8' bgs on the sidewalls and end walls for both excavation pits to the north, east, and south. The lateral extent of contamination to the west however could not be determined. Laboratory results indicate petroleum-contaminated soils still remain along the west wall of the excavation. Excavation was forced to cease along the west wall once the property boundary limits were reached on the subject property.

The horizontal extent of contamination for the subject property is undetermined. Soils were excavated to a maximum depth of approximately 10' bgs. The seasonal high groundwater table for the surrounding area is generally 8' bgs. Sample results indicate that petroleum contaminated soils above ADEC target cleanup levels still exist within the vadose zone >8' below ground surface.

During excavation, a small amount of buried lead-acid battery residue was encountered. One analytical sample was collected and tested for lead. The sample results indicate that soils were below ADEC cleanup levels for lead. The batteries along with approximately 3 cubic feet of soil were transported to the hazardous waste site at the Fairbanks North Star Borough landfill for disposal.

ARES recommends the following actions:

1. Excavation was not able to proceed on the west wall of both excavation pits due to the property boundary limits of the subject property. Further collaboration between the owner of the subject property and the owner of the adjacent property to the west is required in order to obtain site access and remove soils above ADEC cleanup levels;
2. Based on analytical results contaminated soils remain at 5' bgs in the northeast corner of excavation pit # I. Soils should be removed and landfarmed accordingly to complete lateral removal of contaminated material.
3. Based on initial sample results and high levels of GRO, DRO, and BTEX that remain within the vadose zone, it is likely that groundwater has been impacted at this site. Groundwater data (groundwater samples and water quality measurements) should be collected in order to assess impacts to groundwater per ADEC regulations. Groundwater data should include up-gradient, source area, and down-gradient collection of groundwater samples/data. A Work Plan will have to be prepared and submitted for ADEC approval prior to installation of groundwater monitoring wells;
4. Complete a well survey in order to identify potential receptors;
5. Complete conceptual site model to assess potential impacts to human health;
6. Due to high levels of contamination on the floor of the excavation pits, ARES recommends that for the immediate future, the excavation pits remain open to assist in aeration/remediation;
7. Prepare and submit a Corrective Action Plan to address remaining on-site contamination; and

8. Landfarmed petroleum-contaminated soils will require post sampling upon remediation per ADEC approved Corrective Action Work Plan (May 2007) to include the following:
 - Field screen samples will be collected on an annual basis and reported to ADEC until cleanup levels for soil are achieved. Final laboratory confirmation samples for GRO, DRO, and BTEX will be collected from the stockpile and the from the ground surface under the stockpile to ensure cleanup objectives are met; and
 - Upon meeting cleanup objectives, a final summary will be submitted to ADEC for site closure purposes.

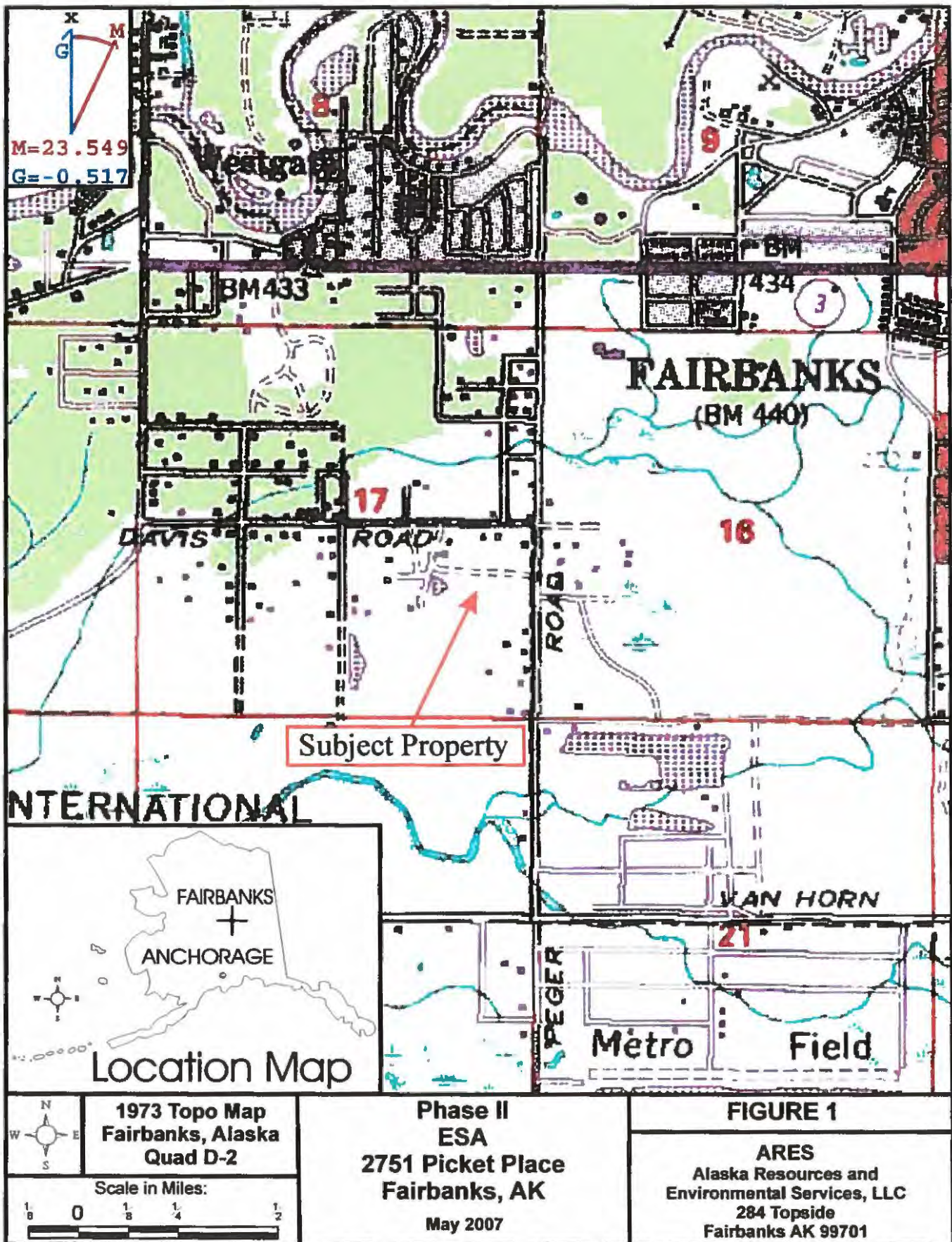
6.0 LIMITATIONS OF INVESTIGATION

This report presents the analytical results from a limited number of soil samples, and should not be construed as a comprehensive study of subsurface conditions at the site. The samples were intended to evaluate the presence or absence of contaminants at the locations selected. Detectable levels of petroleum hydrocarbons or other substances may be present at different locations. It was also not the intent of our sampling and testing to detect the presence of soil affected by contaminants other than those for which laboratory analysis were performed. No conclusions can be drawn on the presence or absence of other contaminants. This is not a geotechnical study.

The data presented in this report should be considered representative of the time of our site observations and sample collection. Changes in site conditions can occur with time because of natural forces or human activity. ARES reserves the right to modify or alter conclusions and recommendations should additional data become available.

This report was prepared for the exclusive use of Mr. Gary Lundgren and his representatives. If it is made available to others, it should be for information on factual data only and not as a warranty of subsurface conditions.

Appendix A



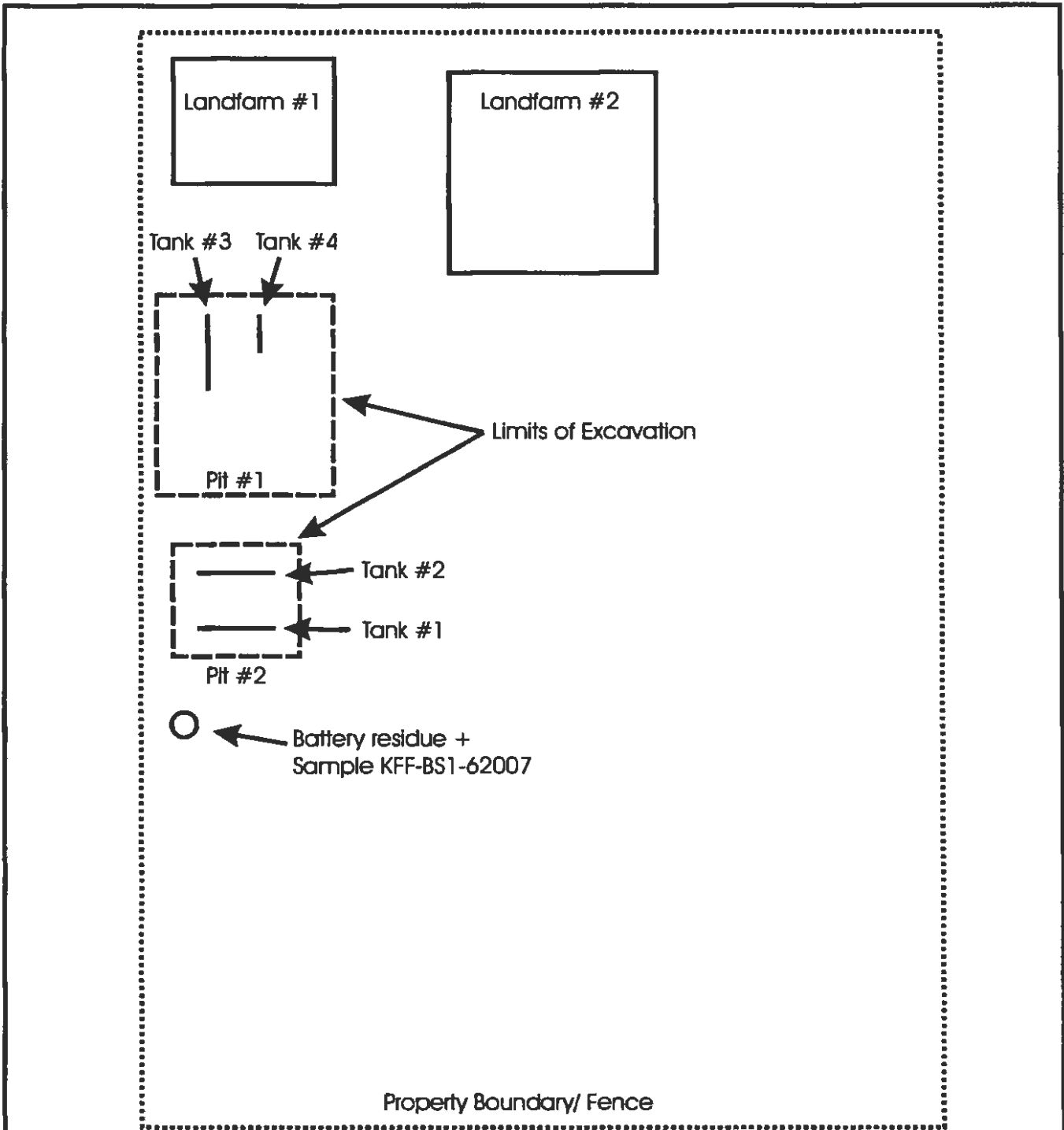


Subject Property

	2002/03 Aerial Photograph Fairbanks, Alaska
	Scale in Feet: 0 100 200 300 400 500

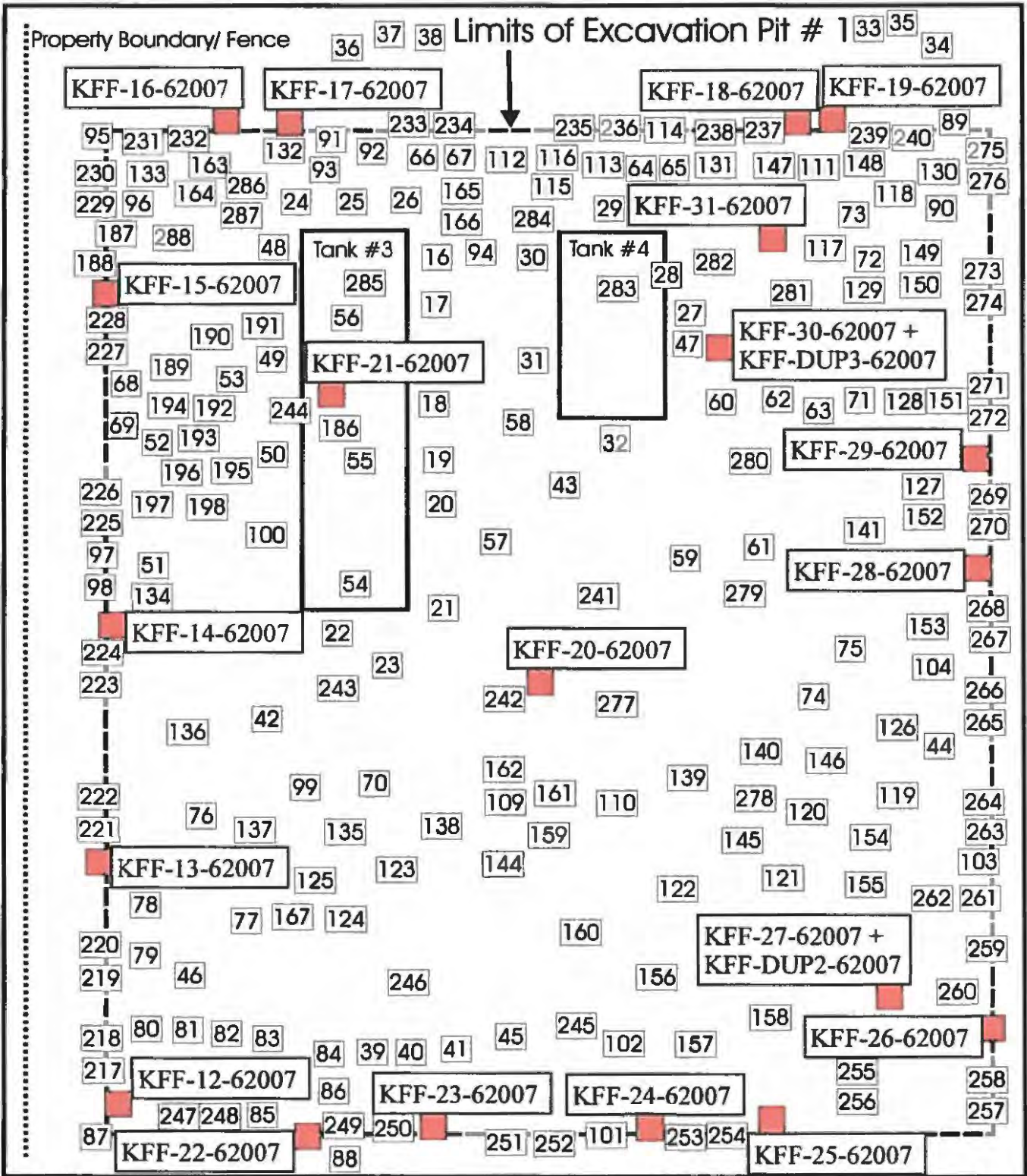
Phase II
ESA
2751 Picket Place
Fairbanks, AK
May 2007

FIGURE 2
ARES
Alaska Resources and
Environmental Services, LLC
284 Topside
Fairbanks AK 99701



Picket Place Road

	<p>Site Map</p>	<p>Phase II ESA 2751 Picket Place Fairbanks, AK May 2007</p>	<p>FIGURE 3</p>
<p>Scale in Feet</p>			<p>ARES Alaska Resources and Environmental Services, LLC 284 Topside Fairbanks AK 99701</p>



Sample Location Map

Scale in Feet:

0 5 10 20

Key

■ Lab Analytical Soil Sample

Field Screen Sample

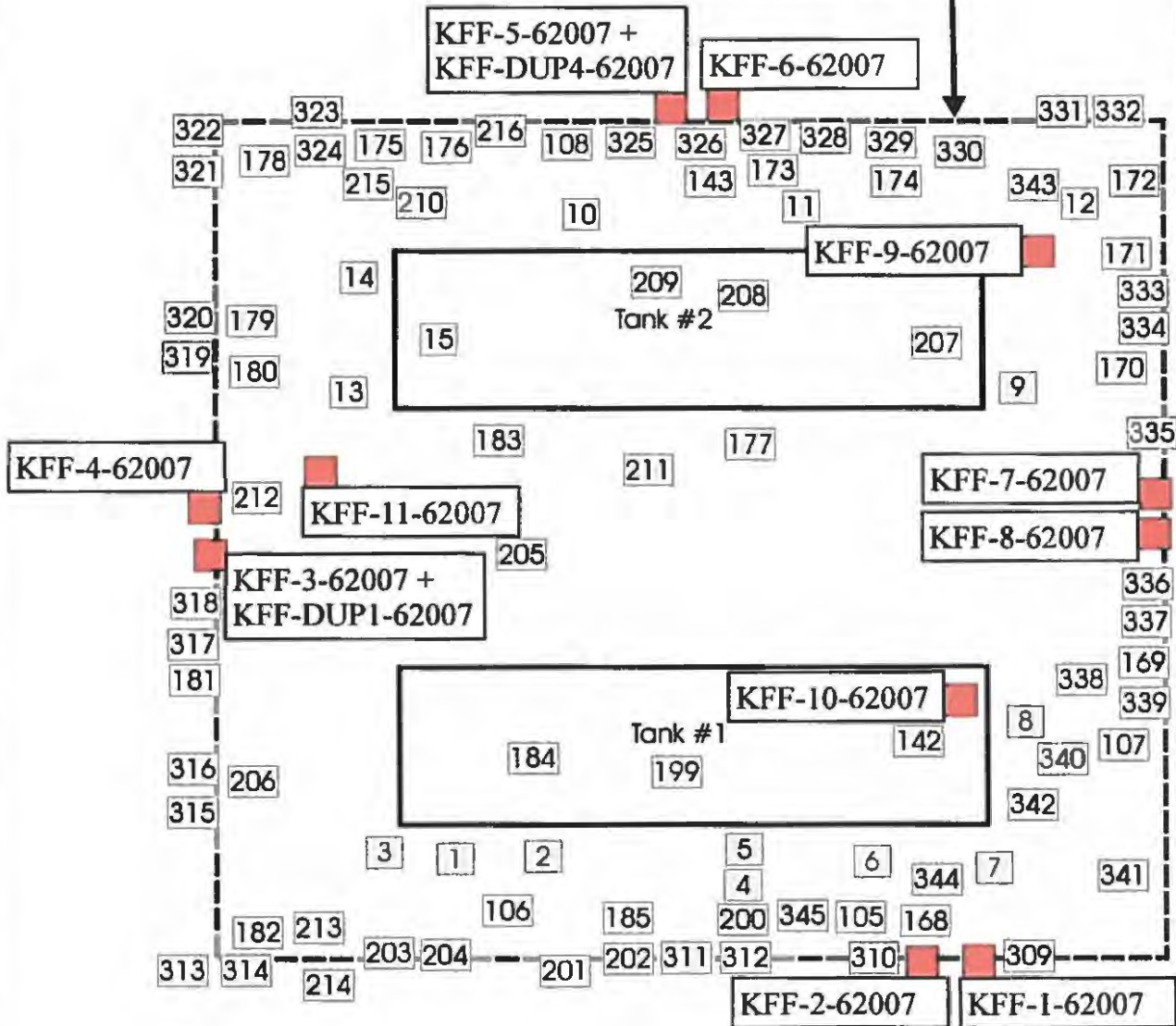
**Phase II
ESA**
2751 Picket Place
Fairbanks, AK
May 2007

FIGURE 4

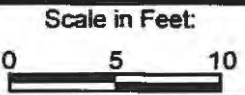
ARES
Alaska Resources and
Environmental Services, LLC
284 Topside
Fairbanks AK 99701

Property Boundary/ Fence

Limits of Excavation Pit # 2



Sample Location Map

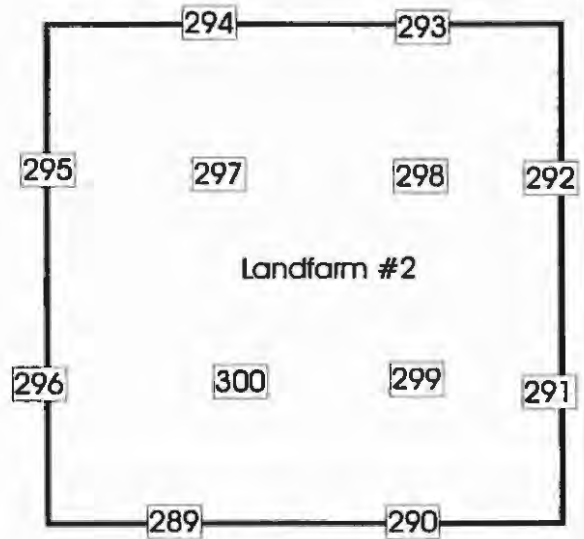
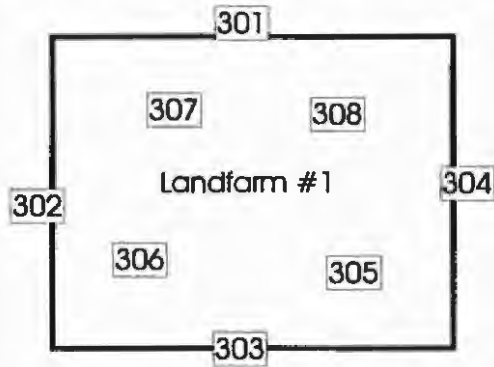


Key	
■	Lab Analytical Soil Sample
#	Field Screen Sample

**Phase II
ESA**
2751 Picket Place
Fairbanks, AK
May 2007

FIGURE 5
ARES
Alaska Resources and
Environmental Services, LLC
284 Topside
Fairbanks AK 99701

Property Boundary/ Fence



Note: Analytical samples KFF-SS1-62007 through KFF-SS10-62007 (SS1-SS10) were composite samples from the two stockpiles/ landfarms.



Sample Location Map

Scale in Feet:

0 5 10 20



Key

- Lab Analytical Soil Sample
- # Field Screen Sample

**Phase II
ESA
2751 Picket Place
Fairbanks, AK**

May 2007

FIGURE 6

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside
Fairbanks AK 99701

Appendix B



Photograph 1
Former dispenser island

Photograph 2
Tank hatch

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



**Photograph 3
Tank 2 removal**

**Photograph 4
Tank 2 removal**

**Phase II
ESA
2751 Picket Place
Fairbanks, AK**

May, 2007

PHOTOGRAPHS

**ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701**



Photograph 5
Excavation pit 2 viewed SW

Photograph 6
Final excavation pit 2 viewed NW

Phase II
ESA
2751 Picket Place
Fairbanks, AK

May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



Photograph 7
Final excavation pit 2 viewed SW

Photograph 8
Excavation Pit 1

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



**Photograph 9
Excavation pit 1**

**Photograph 10
Final excavation pit 1 viewed SW**

**Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007**

PHOTOGRAPHS

**ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701**



Photograph 11
Final excavation pit 1 viewed NE

Photograph 12
Final excavation pit 1 with field
screen flags viewed north

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



Photograph 13
Landfarm 1

Photograph 14
Landfarm 1

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
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Fairbanks AK 99701



Photograph 15
Landfarm 1

Photograph 16
Landfarm 2

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



Photograph 17
Landfarm 2

Photograph 18
Sheen on water in final excavation
pit 1

Phase II
ESA
2751 Picket Place
Fairbanks, AK
May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701



Photograph 19
Typical 10,000-gallon UST

Photograph 20
5,000-gallon diesel UST

Phase II
ESA
2751 Picket Place
Fairbanks, AK

May, 2007

PHOTOGRAPHS

ARES
Alaska Resources and
Environmental Services, LLC
284 Topside Road
Fairbanks AK 99701

Appendix C

July 23, 2007

Lyle Gresehover
Alaska Resources & Environmental Services
P.O. Box 83050
Fairbanks, AK 99708

RE: Kobuk Feed and Fuel

Enclosed are the results of analyses for samples received by the laboratory on 06/19/07 09:05.
The following list is a summary of the Work Orders contained in this report, generated on 07/23/07 09:50.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
AQF0102	Kobuk Feed and Fuel	[none]

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name	Kobuk Feed and Fuel	Report Created:
P.O. Box 83050	Project Number	[none]	07/23/07 09:50
Fairbanks, AK 99708	Project Manager	Lyle Greschover	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
KFF-1-62007	AQF0102-01	Soil	06/15/07 09:07	06/19/07 09:05
KFF-2-62007	AQF0102-02	Soil	06/15/07 09:20	06/19/07 09:05
KFF-3-62007	AQF0102-03	Soil	06/15/07 09:34	06/19/07 09:05
KFF-4-62007	AQF0102-04	Soil	06/15/07 09:47	06/19/07 09:05
KFF-5-62007	AQF0102-05	Soil	06/15/07 10:00	06/19/07 09:05
KFF-6-62007	AQF0102-06	Soil	06/15/07 10:12	06/19/07 09:05
KFF-7-62007	AQF0102-07	Soil	06/15/07 10:25	06/19/07 09:05
KFF-8-62007	AQF0102-08	Soil	06/15/07 10:37	06/19/07 09:05
KFF-9-62007	AQF0102-09	Soil	06/15/07 10:52	06/19/07 09:05
KFF-10-62007	AQF0102-10	Soil	06/15/07 11:03	06/19/07 09:05
KFF-11-62007	AQF0102-11	Soil	06/15/07 11:17	06/19/07 09:05
KFF-12-62007	AQF0102-12	Soil	06/15/07 11:31	06/19/07 09:05
KFF-13-62007	AQF0102-13	Soil	06/15/07 11:44	06/19/07 09:05
KFF-14-62007	AQF0102-14	Soil	06/15/07 11:57	06/19/07 09:05
KFF-15-62007	AQF0102-15	Soil	06/15/07 12:09	06/19/07 09:05
KFF-16-62007	AQF0102-16	Soil	06/15/07 12:21	06/19/07 09:05
KFF-17-62007	AQF0102-17	Soil	06/15/07 12:34	06/19/07 09:05
KFF-18-62007	AQF0102-18	Soil	06/15/07 12:48	06/19/07 09:05
KFF-19-62007	AQF0102-19	Soil	06/15/07 13:01	06/19/07 09:05
KFF-20-62007	AQF0102-20	Soil	06/15/07 13:14	06/19/07 09:05
KFF-21-62007	AQF0102-21	Soil	06/15/07 13:26	06/19/07 09:05
KFF-22-62007	AQF0102-22	Soil	06/15/07 13:39	06/19/07 09:05
KFF-23-62007	AQF0102-23	Soil	06/15/07 13:52	06/19/07 09:05
KFF-24-62007	AQF0102-24	Soil	06/15/07 14:04	06/19/07 09:05
KFF-25-62007	AQF0102-25	Soil	06/15/07 14:13	06/19/07 09:05
KFF-26-62007	AQF0102-26	Soil	06/15/07 14:22	06/19/07 09:05
KFF-27-62007	AQF0102-27	Soil	06/15/07 14:35	06/19/07 09:05
KFF-28-62007	AQF0102-28	Soil	06/15/07 14:48	06/19/07 09:05
KFF-29-62007	AQF0102-29	Soil	06/15/07 15:00	06/19/07 09:05
KFF-30-62007	AQF0102-30	Soil	06/15/07 15:13	06/19/07 09:05
KFF-31-62007	AQF0102-31	Soil	06/15/07 15:26	06/19/07 09:05
KFF-DUP1-62007	AQF0102-32	Soil	06/15/07 15:40	06/19/07 09:05
KFF-DUP2-62007	AQF0102-33	Soil	06/15/07 15:53	06/19/07 09:05
KFF-DUP3-62007	AQF0102-34	Soil	06/15/07 16:06	06/19/07 09:05
KFF-DUP4-62007	AQF0102-35	Soil	06/15/07 16:20	06/19/07 09:05

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name:	Kobuk Feed and Fuel	Report Created:
	Project Number:	[none]	07/23/07 09:50
	Project Manager:	Lyle Greschover	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
KFF-SS1-62007	AQF0102-36	Soil	06/16/07 10:14	06/19/07 09:05
KFF-SS2-62007	AQF0102-37	Soil	06/16/07 10:27	06/19/07 09:05
KFF-SS3-62007	AQF0102-38	Soil	06/16/07 10:40	06/19/07 09:05
KFF-SS4-62007	AQF0102-39	Soil	06/16/07 10:54	06/19/07 09:05
KFF-SS5-62007	AQF0102-40	Soil	06/16/07 11:06	06/19/07 09:05
KFF-SS6-62007	AQF0102-41	Soil	06/16/07 11:18	06/19/07 09:05
KFF-SS7-62007	AQF0102-42	Soil	06/16/07 11:30	06/19/07 09:05
KFF-SS8-62007	AQF0102-43	Soil	06/16/07 11:44	06/19/07 09:05
KFF-SS9-62007	AQF0102-44	Soil	06/16/07 11:58	06/19/07 09:05
KFF-SS10-62007	AQF0102-45	Soil	06/16/07 12:11	06/19/07 09:05
KFF-BS1-62007	AQF0102-46	Soil	06/16/07 12:31	06/19/07 09:05
Trip Blank	AQF0102-47	Soil	06/15/07 00:00	06/19/07 09:05
Trip Blank	AQF0102-48	Soil	06/16/07 00:00	06/19/07 09:05

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
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Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-01 (KFF-1-62007)		Soil		Sampled: 06/15/07 09:07						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 12:07	
Surrogate(s): 1-Chlorooctadecane			83.6%		50 - 150 %	"				
AQF0102-02 (KFF-2-62007)		Soil		Sampled: 06/15/07 09:20						
Diesel Range Organics	AK 102	181	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 13:13	
Surrogate(s): 1-Chlorooctadecane			89.7%		50 - 150 %	"				
AQF0102-03 (KFF-3-62007)		Soil		Sampled: 06/15/07 09:34						
Diesel Range Organics	AK 102	11200	—	200	mg/kg dry	10x	7060129	06/27/07 15:51	07/01/07 09:25	RL7
Surrogate(s): 1-Chlorooctadecane			93.6%		50 - 150 %	"				
AQF0102-04 (KFF-4-62007)		Soil		Sampled: 06/15/07 09:47						
Diesel Range Organics	AK 102	3960	—	200	mg/kg dry	10x	7060129	06/27/07 15:51	07/01/07 09:25	RL7
Surrogate(s): 1-Chlorooctadecane			86.8%		50 - 150 %	"				
AQF0102-05 (KFF-5-62007)		Soil		Sampled: 06/15/07 10:00						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 14:19	
Surrogate(s): 1-Chlorooctadecane			89.3%		50 - 150 %	"				
AQF0102-06 (KFF-6-62007)		Soil		Sampled: 06/15/07 10:12						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 14:19	
Surrogate(s): 1-Chlorooctadecane			82.3%		50 - 150 %	"				
AQF0102-07 (KFF-7-62007)		Soil		Sampled: 06/15/07 10:25						
Diesel Range Organics	AK 102	47.8	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 14:52	
Surrogate(s): 1-Chlorooctadecane			89.0%		50 - 150 %	"				
AQF0102-08 (KFF-8-62007)		Soil		Sampled: 06/15/07 10:37						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 14:52	
Surrogate(s): 1-Chlorooctadecane			84.4%		50 - 150 %	"				

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-09 (KFF-9-62007)		Soil		Sampled: 06/15/07 10:52						
Diesel Range Organics	AK 102	940	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 15:24	
Surrogate(s): 1-Chlorooctadecane			90.6%		50 - 150 %	"				
AQF0102-10 (KFF-10-62007)		Soil		Sampled: 06/15/07 11:03						
Diesel Range Organics	AK 102	185	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 15:24	
Surrogate(s): 1-Chlorooctadecane			82.1%		50 - 150 %	"				
AQF0102-11 (KFF-11-62007)		Soil		Sampled: 06/15/07 11:17						
Diesel Range Organics	AK 102	2640	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 15:57	
Surrogate(s): 1-Chlorooctadecane			89.6%		50 - 150 %	"				
AQF0102-12 (KFF-12-62007)		Soil		Sampled: 06/15/07 11:31						
Diesel Range Organics	AK 102	2140	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 15:57	
Surrogate(s): 1-Chlorooctadecane			95.9%		50 - 150 %	"				
AQF0102-13 (KFF-13-62007)		Soil		Sampled: 06/15/07 11:44						
Diesel Range Organics	AK 102	3580	---	200	mg/kg dry	10x	7060129	06/27/07 15:51	07/01/07 09:58	RL7
Surrogate(s): 1-Chlorooctadecane			65.9%		50 - 150 %	"				
AQF0102-14 (KFF-14-62007)		Soil		Sampled: 06/15/07 11:57						
Diesel Range Organics	AK 102	6960	---	200	mg/kg dry	10x	7060129	06/27/07 15:51	07/01/07 09:58	RL7
Surrogate(s): 1-Chlorooctadecane			68.0%		50 - 150 %	"				
AQF0102-15 (KFF-15-62007)		Soil		Sampled: 06/15/07 12:09						
Diesel Range Organics	AK 102	802	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 17:35	
Surrogate(s): 1-Chlorooctadecane			92.5%		50 - 150 %	"				
AQF0102-16 (KFF-16-62007)		Soil		Sampled: 06/15/07 12:21						
Diesel Range Organics	AK 102	ND	---	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 17:35	
Surrogate(s): 1-Chlorooctadecane			84.0%		50 - 150 %	"				

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Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-17 (KFF-17-62007)		Soil		Sampled: 06/15/07 12:34						
Diesel Range Organics	AK 102	2510	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 18:08	
Surrogate(s): 1-Chlorooctadecane			93.8%		50 - 150 %	"				
AQF0102-18 (KFF-18-62007)		Soil		Sampled: 06/15/07 12:48						
Diesel Range Organics	AK 102	316	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 18:08	
Surrogate(s): 1-Chlorooctadecane			84.0%		50 - 150 %	"				
AQF0102-19 (KFF-19-62007)		Soil		Sampled: 06/15/07 13:01						
Diesel Range Organics	AK 102	1660	—	20.0	mg/kg dry	1x	7060129	06/27/07 15:51	06/29/07 18:41	
Surrogate(s): 1-Chlorooctadecane			88.1%		50 - 150 %	"				
AQF0102-20 (KFF-20-62007)		Soil		Sampled: 06/15/07 13:14						
Diesel Range Organics	AK 102	6130	—	200	mg/kg dry	10x	7060129	06/27/07 15:51	07/01/07 10:31	RL7
Surrogate(s): 1-Chlorooctadecane			84.6%		50 - 150 %	"				
AQF0102-21 (KFF-21-62007)		Soil		Sampled: 06/15/07 13:26						
Diesel Range Organics	AK 102	11700	—	200	mg/kg dry	10x	7060131	06/28/07 08:27	07/01/07 10:31	RL7
Surrogate(s): 1-Chlorooctadecane			87.4%		50 - 150 %	"				
AQF0102-22 (KFF-22-62007)		Soil		Sampled: 06/15/07 13:39						
Diesel Range Organics	AK 102	ND	—	17.1	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 19:15	
Surrogate(s): 1-Chlorooctadecane			84.6%		50 - 150 %	"				
AQF0102-23 (KFF-23-62007)		Soil		Sampled: 06/15/07 13:52						
Diesel Range Organics	AK 102	175	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 19:48	
Surrogate(s): 1-Chlorooctadecane			86.6%		50 - 150 %	"				
AQF0102-24 (KFF-24-62007)		Soil		Sampled: 06/15/07 14:04						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 19:48	
Surrogate(s): 1-Chlorooctadecane			81.4%		50 - 150 %	"				

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-25 (KFF-25-62007)		Soil		Sampled: 06/15/07 14:13						
Diesel Range Organics	AK 102	378	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 20:22	
Surrogate(s): 1-Chlorooctadecane			94.0%		50 - 150 %	"				
AQF0102-26 (KFF-26-62007)		Soil		Sampled: 06/15/07 14:22						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 20:22	
Surrogate(s): 1-Chlorooctadecane			86.2%		50 - 150 %	"				
AQF0102-27 (KFF-27-62007)		Soil		Sampled: 06/15/07 14:35						
Diesel Range Organics	AK 102	1720	—	181	mg/kg dry	10x	7060131	06/28/07 08:27	07/02/07 11:56	RL7
Surrogate(s): 1-Chlorooctadecane			99.4%		50 - 150 %	"				
AQF0102-28 (KFF-28-62007)		Soil		Sampled: 06/15/07 14:48						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 20:55	
Surrogate(s): 1-Chlorooctadecane			86.1%		50 - 150 %	"				
AQF0102-29 (KFF-29-62007)		Soil		Sampled: 06/15/07 15:00						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 21:29	
Surrogate(s): 1-Chlorooctadecane			86.1%		50 - 150 %	"				
AQF0102-30 (KFF-30-62007)		Soil		Sampled: 06/15/07 15:13						
Diesel Range Organics	AK 102	9300	—	180	mg/kg dry	10x	7060131	06/28/07 08:27	07/01/07 11:04	RL7
Surrogate(s): 1-Chlorooctadecane			90.8%		50 - 150 %	"				
AQF0102-31 (KFF-31-62007)		Soil		Sampled: 06/15/07 15:26						
Diesel Range Organics	AK 102	2480	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/29/07 22:02	
Surrogate(s): 1-Chlorooctadecane			95.4%		50 - 150 %	"				
AQF0102-32 (KFF-DUP1-62007)		Soil		Sampled: 06/15/07 15:40						
Diesel Range Organics	AK 102	11800	—	179	mg/kg dry	10x	7060131	06/28/07 08:27	07/02/07 12:28	RL7
Surrogate(s): 1-Chlorooctadecane			97.5%		50 - 150 %	"				

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-33 (KFF-DUP2-62007)		Soil		Sampled: 06/15/07 15:53						
Diesel Range Organics	AK 102	2190	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/30/07 00:15	
Surrogate(s): 1-Chlorooctadecane		98.4%		50 - 150 %						
AQF0102-34 (KFF-DUP3-62007)		Soil		Sampled: 06/15/07 16:06						
Diesel Range Organics	AK 102	12900	—	176	mg/kg dry	10x	7060131	06/28/07 08:27	07/02/07 12:28	RL7
Surrogate(s): 1-Chlorooctadecane		98.5%		50 - 150 %						
AQF0102-35 (KFF-DUP4-62007)		Soil		Sampled: 06/15/07 16:20						
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg dry	1x	7060131	06/28/07 08:27	06/30/07 00:48	
Surrogate(s): 1-Chlorooctadecane		91.4%		50 - 150 %						
AQF0102-36 (KFF-SS1-62007)		Soil		Sampled: 06/16/07 10:14						
Diesel Range Organics	AK 102	1380	—	20.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 17:25	
Surrogate(s): 1-Chlorooctadecane		90.5%		50 - 150 %						
AQF0102-37 (KFF-SS2-62007)		Soil		Sampled: 06/16/07 10:27						
Diesel Range Organics	AK 102	1320	—	20.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 20:11	
Surrogate(s): 1-Chlorooctadecane		102%		50 - 150 %						
AQF0102-38 (KFF-SS3-62007)		Soil		Sampled: 06/16/07 10:40						
Diesel Range Organics	AK 102	2120	—	18.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 20:44	
Surrogate(s): 1-Chlorooctadecane		93.6%		50 - 150 %						
AQF0102-39 (KFF-SS4-62007)		Soil		Sampled: 06/16/07 10:54						
Diesel Range Organics	AK 102	1530	—	20.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 21:17	
Surrogate(s): 1-Chlorooctadecane		96.5%		50 - 150 %						
AQF0102-40 (KFF-SS5-62007)		Soil		Sampled: 06/16/07 11:06						
Diesel Range Organics	AK 102	2140	—	20.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 21:17	
Surrogate(s): 1-Chlorooctadecane		89.3%		50 - 150 %						

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-41 (KFF-SS6-62007)		Soil			Sampled: 06/16/07 11:18					
Diesel Range Organics	AK 102	25800	—	1820	mg/kg dry	100x	7060135	06/29/07 07:59	07/02/07 13:01	RL7
Surrogate(s): <i>1-Chlorooctadecane</i>			81.1%		50 - 150 %	*				
AQF0102-42 (KFF-SS7-62007)		Soil			Sampled: 06/16/07 11:30					
Diesel Range Organics	AK 102	2790	—	20.0	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 21:50	
Surrogate(s): <i>1-Chlorooctadecane</i>			88.9%		50 - 150 %	*				
AQF0102-43 (KFF-SS8-62007)		Soil			Sampled: 06/16/07 11:44					
Diesel Range Organics	AK 102	2170	—	16.5	mg/kg dry	1x	7060135	06/29/07 07:59	06/30/07 22:57	
Surrogate(s): <i>1-Chlorooctadecane</i>			100%		50 - 150 %	*				
AQF0102-44 (KFF-SS9-62007)		Soil			Sampled: 06/16/07 11:58					
Diesel Range Organics	AK 102	3930	—	151	mg/kg dry	10x	7060135	06/29/07 07:59	07/02/07 13:01	RL7
Surrogate(s): <i>1-Chlorooctadecane</i>			97.6%		50 - 150 %	*				
AQF0102-45 (KFF-SS10-62007)		Soil			Sampled: 06/16/07 12:11					
Diesel Range Organics	AK 102	5290	—	171	mg/kg dry	10x	7060135	06/29/07 07:59	07/02/07 13:33	RL7
Surrogate(s): <i>1-Chlorooctadecane</i>			107%		50 - 150 %	*				

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created 07/23/07 09:50
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Physical Parameters by APHA/ASTM/EPA Methods
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-01 (KFF-1-62007)		Soil								Sampled: 06/15/07 09:07
Dry Weight	TA-SOP	73.8	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-02 (KFF-2-62007)		Soil								Sampled: 06/15/07 09:20
Dry Weight	TA-SOP	83.3	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-03 (KFF-3-62007)		Soil								Sampled: 06/15/07 09:34
Dry Weight	TA-SOP	81.9	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-04 (KFF-4-62007)		Soil								Sampled: 06/15/07 09:47
Dry Weight	TA-SOP	85.3	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-05 (KFF-5-62007)		Soil								Sampled: 06/15/07 10:00
Dry Weight	TA-SOP	72.4	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-06 (KFF-6-62007)		Soil								Sampled: 06/15/07 10:12
Dry Weight	TA-SOP	73.6	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-07 (KFF-7-62007)		Soil								Sampled: 06/15/07 10:25
Dry Weight	TA-SOP	68.1	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-08 (KFF-8-62007)		Soil								Sampled: 06/15/07 10:37
Dry Weight	TA-SOP	76.2	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-09 (KFF-9-62007)		Soil								Sampled: 06/15/07 10:52
Dry Weight	TA-SOP	83.3	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-10 (KFF-10-62007)		Soil								Sampled: 06/15/07 11:03
Dry Weight	TA-SOP	84.6	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-11 (KFF-11-62007)		Soil								Sampled: 06/15/07 11:17
Dry Weight	TA-SOP	83.6	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created 07/23/07 09.50
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Physical Parameters by APHA/ASTM/EPA Methods
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-12 (KFF-12-62007)		Soil			Sampled: 06/15/07 11:31					
Dry Weight	TA-SOP	73.7	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-13 (KFF-13-62007)		Soil			Sampled: 06/15/07 11:44					
Dry Weight	TA-SOP	95.8	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-14 (KFF-14-62007)		Soil			Sampled: 06/15/07 11:57					
Dry Weight	TA-SOP	73.4	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-15 (KFF-15-62007)		Soil			Sampled: 06/15/07 12:09					
Dry Weight	TA-SOP	83.9	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-16 (KFF-16-62007)		Soil			Sampled: 06/15/07 12:21					
Dry Weight	TA-SOP	76.7	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-17 (KFF-17-62007)		Soil			Sampled: 06/15/07 12:34					
Dry Weight	TA-SOP	90.4	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-18 (KFF-18-62007)		Soil			Sampled: 06/15/07 12:48					
Dry Weight	TA-SOP	73.6	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-19 (KFF-19-62007)		Soil			Sampled: 06/15/07 13:01					
Dry Weight	TA-SOP	71.2	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-20 (KFF-20-62007)		Soil			Sampled: 06/15/07 13:14					
Dry Weight	TA-SOP	78.7	—	1.00	%	1x	7060130	06/27/07 17:09	06/28/07 14:35	
AQF0102-21 (KFF-21-62007)		Soil			Sampled: 06/15/07 13:26					
Dry Weight	TA-SOP	92.1	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-22 (KFF-22-62007)		Soil			Sampled: 06/15/07 13:39					
Dry Weight	TA-SOP	73.6	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	

TestAmerica - Anchorage, AK



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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Physical Parameters by APHA/ASTM/EPA Methods
TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-23 (KFF-23-62007)		Soil			Sampled: 06/15/07 13:52					
Dry Weight	TA-SOP	86.7	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-24 (KFF-24-62007)		Soil			Sampled: 06/15/07 14:04					
Dry Weight	TA-SOP	74.1	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-25 (KFF-25-62007)		Soil			Sampled: 06/15/07 14:13					
Dry Weight	TA-SOP	97.8	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-26 (KFF-26-62007)		Soil			Sampled: 06/15/07 14:22					
Dry Weight	TA-SOP	71.3	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-27 (KFF-27-62007)		Soil			Sampled: 06/15/07 14:35					
Dry Weight	TA-SOP	96.3	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-28 (KFF-28-62007)		Soil			Sampled: 06/15/07 14:48					
Dry Weight	TA-SOP	78.0	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-29 (KFF-29-62007)		Soil			Sampled: 06/15/07 15:00					
Dry Weight	TA-SOP	69.7	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-30 (KFF-30-62007)		Soil			Sampled: 06/15/07 15:13					
Dry Weight	TA-SOP	75.0	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-31 (KFF-31-62007)		Soil			Sampled: 06/15/07 15:26					
Dry Weight	TA-SOP	79.5	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-32 (KFF-DUP1-62007)		Soil			Sampled: 06/15/07 15:40					
Dry Weight	TA-SOP	82.7	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-33 (KFF-DUP2-62007)		Soil			Sampled: 06/15/07 15:53					
Dry Weight	TA-SOP	96.6	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Physical Parameters by APHA/ASTM/EPA Methods
 TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-34 (KFF-DUP3-62007)		Soil						Sampled: 06/15/07 16:06		
Dry Weight	TA-SOP	74.6	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-35 (KFF-DUP4-62007)		Soil						Sampled: 06/15/07 16:20		
Dry Weight	TA-SOP	73.7	—	1.00	%	1x	7060133	06/28/07 12:50	06/29/07 08:16	
AQF0102-36 (KFF-SS1-62007)		Soil						Sampled: 06/16/07 10:14		
Dry Weight	TA-SOP	84.0	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-37 (KFF-SS2-62007)		Soil						Sampled: 06/16/07 10:27		
Dry Weight	TA-SOP	79.1	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-38 (KFF-SS3-62007)		Soil						Sampled: 06/16/07 10:40		
Dry Weight	TA-SOP	85.6	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-39 (KFF-SS4-62007)		Soil						Sampled: 06/16/07 10:54		
Dry Weight	TA-SOP	78.6	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-40 (KFF-SS5-62007)		Soil						Sampled: 06/16/07 11:06		
Dry Weight	TA-SOP	80.0	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-41 (KFF-SS6-62007)		Soil						Sampled: 06/16/07 11:18		
Dry Weight	TA-SOP	81.8	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-42 (KFF-SS7-62007)		Soil						Sampled: 06/16/07 11:30		
Dry Weight	TA-SOP	79.0	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-43 (KFF-SS8-62007)		Soil						Sampled: 06/16/07 11:44		
Dry Weight	TA-SOP	81.9	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	
AQF0102-44 (KFF-SS9-62007)		Soil						Sampled: 06/16/07 11:58		
Dry Weight	TA-SOP	85.2	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	

TestAmerica - Anchorage, AK



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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	Report Created
P.O. Box 83050	Project Number: [none]	07/23/07 09:50
Fairbanks, AK 99708	Project Manager: Lyle Greschover	

Physical Parameters by APHA/ASTM/EPA Methods
TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-45 (KFF-SS10-62007)		Soil			Sampled: 06/16/07 12:11					
Dry Weight	TA-SOP	83.0	—	1.00	%	1x	7060136	06/29/07 09:57	06/30/07 16:33	

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-01 (KFF-1-62007)	Soil		Sampled: 06/15/07 09:07							
Gasoline Range Hydrocarbons	AK 101	ND	—	3.66	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 15:03	
Benzene	"	ND	—	0.0292	"	"	"	"	"	
Toluene	"	ND	—	0.0366	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0366	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.0731	"	"	"	"	"	
Surrogate(s):	4-BFB (FID)		83.2%		60 - 120 %	"				
	4-BFB (PID)		111%		50 - 150 %	"				
	a,a,a - Trifluorotoluene (FID)		72.7%		60 - 120 %	"				
AQF0102-02 (KFF-2-62007)	Soil		Sampled: 06/15/07 09:20							
Gasoline Range Hydrocarbons	AK 101	13.3	—	2.28	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 15:27	
Benzene	"	0.0419	—	0.0182	"	"	"	"	"	
Toluene	"	ND	—	0.0228	"	"	"	"	"	
Ethylbenzene	"	0.0372	—	0.0228	"	"	"	"	"	
Xylenes (total)	"	0.190	—	0.0455	"	"	"	"	"	
Surrogate(s):	4-BFB (FID)		192%		60 - 120 %	"				ZX
	4-BFB (PID)		189%		50 - 150 %	"				ZX
	a,a,a - Trifluorotoluene (FID)		71.6%		60 - 120 %	"				
AQF0102-03 (KFF-3-62007)	Soil		Sampled: 06/15/07 09:34							
Gasoline Range Hydrocarbons	AK 101	1480	—	82.4	mg/kg dry	20x	7060164	06/25/07 15:01	06/26/07 02:09	
Benzene	"	12.6	—	0.659	"	"	"	"	"	
Toluene	"	35.7	—	0.824	"	"	"	"	"	
Ethylbenzene	"	29.8	—	0.824	"	"	"	"	"	
Xylenes (total)	"	116	—	1.65	"	"	"	"	"	
Surrogate(s):	4-BFB (FID)		780%		60 - 120 %	1x				ZX
	4-BFB (PID)		235%		50 - 150 %	"				ZX
	a,a,a - Trifluorotoluene (FID)		77.7%		60 - 120 %	20x				
AQF0102-04 (KFF-4-62007)	Soil		Sampled: 06/15/07 09:47							
Gasoline Range Hydrocarbons	AK 101	239	—	38.3	mg/kg dry	10x	7060164	06/25/07 15:01	06/26/07 02:34	
Benzene	"	0.810	—	0.306	"	"	"	"	"	
Toluene	"	0.957	—	0.383	"	"	"	"	"	
Ethylbenzene	"	0.742	—	0.383	"	"	"	"	"	
Xylenes (total)	"	7.81	—	0.766	"	"	"	"	"	
Surrogate(s):	4-BFB (FID)		182%		60 - 120 %	1x				ZX
	4-BFB (PID)		193%		50 - 150 %	"				ZX
	a,a,a - Trifluorotoluene (FID)		83.4%		60 - 120 %	10x				

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	Report Created: 07/23/07 09:50
P.O. Box 83050	Project Number: [none]	
Fairbanks, AK 99708	Project Manager: Lyle Groschever	

Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-05 (KFF-5-62007)		Soil			Sampled: 06/15/07 10:00					
Gasoline Range Hydrocarbons	AK 101	ND	—	4.35	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 16:42	
Benzene	"	0.0357	—	0.0348	"	"	"	"	"	
Toluene	"	ND	—	0.0435	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0435	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.0870	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	90.3%	60 - 120 %	"	"
	4-BFB (PID)	103%	50 - 150 %	"	"
	<i>α,α,α - Trifluorotoluene (FID)</i>	72.4%	60 - 120 %	"	"

AQF0102-06 (KFF-6-62007)		Soil			Sampled: 06/15/07 10:12					
Gasoline Range Hydrocarbons	AK 101	ND	—	4.24	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 17:07	
Benzene	"	ND	—	0.0340	"	"	"	"	"	
Toluene	"	ND	—	0.0424	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0424	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.0849	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	81.9%	60 - 120 %	"	"
	4-BFB (PID)	105%	50 - 150 %	"	"
	<i>α,α,α - Trifluorotoluene (FID)</i>	72.2%	60 - 120 %	"	"

AQF0102-07 (KFF-7-62007)		Soil			Sampled: 06/15/07 10:25					
Gasoline Range Hydrocarbons	AK 101	ND	—	5.15	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 17:31	
Benzene	"	ND	—	0.0412	"	"	"	"	"	
Toluene	"	ND	—	0.0515	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0515	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.103	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	100%	60 - 120 %	"	"
	4-BFB (PID)	111%	50 - 150 %	"	"
	<i>α,α,α - Trifluorotoluene (FID)</i>	65.9%	60 - 120 %	"	"

AQF0102-08 (KFF-8-62007)		Soil			Sampled: 06/15/07 10:37					
Gasoline Range Hydrocarbons	AK 101	ND	—	3.42	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 17:56	
Benzene	"	ND	—	0.0274	"	"	"	"	"	
Toluene	"	ND	—	0.0342	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0342	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.0684	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	74.4%	60 - 120 %	"	"
	4-BFB (PID)	93.2%	50 - 150 %	"	"
	<i>α,α,α - Trifluorotoluene (FID)</i>	71.3%	60 - 120 %	"	"

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-09 (KFF-9-62007)		Soil			Sampled: 06/15/07 10:52					
Gasoline Range Hydrocarbons	AK 101	42.4	---	2.49	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 18:21	
Benzene	"	ND	---	0.0199	"	"	"	"	"	
Toluene	"	0.0270	---	0.0249	"	"	"	"	"	
Ethylbenzene	"	0.0850	---	0.0249	"	"	"	"	"	
Xylenes (total)	"	1.85	---	0.0497	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	847%	---	60 - 120 %	"	"	"	"	"	ZX
	4-BFB (PID)	136%	---	50 - 150 %	"	"	"	"	"	ZX
	a,a,a - Trifluorotoluene (FID)	82.1%	---	60 - 120 %	"	"	"	"	"	

AQF0102-10 (KFF-10-62007)		Soil			Sampled: 06/15/07 11:03					
Gasoline Range Hydrocarbons	AK 101	57.7	---	2.39	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 20:00	
Benzene	"	ND	---	0.0191	"	"	"	"	"	
Toluene	"	0.0444	---	0.0239	"	"	"	"	"	
Ethylbenzene	"	0.786	---	0.0239	"	"	"	"	"	
Xylenes (total)	"	3.55	---	0.0479	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	1310%	---	60 - 120 %	"	"	"	"	"	ZX
	4-BFB (PID)	488%	---	50 - 150 %	"	"	"	"	"	ZX
	a,a,a - Trifluorotoluene (FID)	80.2%	---	60 - 120 %	"	"	"	"	"	

AQF0102-11 (KFF-11-62007)		Soil			Sampled: 06/15/07 11:17					
Gasoline Range Hydrocarbons	AK 101	63.5	---	2.15	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 20:24	
Benzene	"	0.0438	---	0.0172	"	"	"	"	"	
Toluene	"	0.0262	---	0.0215	"	"	"	"	"	
Ethylbenzene	"	0.800	---	0.0215	"	"	"	"	"	
Xylenes (total)	"	3.65	---	0.0431	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	1420%	---	60 - 120 %	"	"	"	"	"	ZX
	4-BFB (PID)	352%	---	50 - 150 %	"	"	"	"	"	ZX
	a,a,a - Trifluorotoluene (FID)	76.5%	---	60 - 120 %	"	"	"	"	"	

AQF0102-12 (KFF-12-62007)		Soil			Sampled: 06/15/07 11:31					
Gasoline Range Hydrocarbons	AK 101	38.5	---	6.78	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 20:49	
Benzene	"	0.178	---	0.0543	"	"	"	"	"	
Toluene	"	ND	---	0.0678	"	"	"	"	"	
Ethylbenzene	"	0.282	---	0.0678	"	"	"	"	"	
Xylenes (total)	"	0.940	---	0.136	"	"	"	"	"	

<i>Surrogate(s):</i>	4-BFB (FID)	163%	---	60 - 120 %	"	"	"	"	"	ZX
	4-BFB (PID)	149%	---	50 - 150 %	"	"	"	"	"	
	a,a,a - Trifluorotoluene (FID)	92.2%	---	60 - 120 %	"	"	"	"	"	

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-13 (KFF-13-62007)		Soil			Sampled: 06/15/07 11:44					
Gasoline Range Hydrocarbons	AK 101	64.2	—	2.88	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 21:14	
Benzene	"	0.0556	—	0.0231	"	"	"	"	"	
Toluene	"	0.0686	—	0.0288	"	"	"	"	"	
Ethylbenzene	"	0.109	—	0.0288	"	"	"	"	"	
Xylenes (total)	"	2.34	—	0.0577	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>			183%		60 - 120 %	"				ZX
<i>4-BFB (PID)</i>			109%		50 - 150 %	"				
<i>α,α,α - Trifluorotoluene (FID)</i>			107%		60 - 120 %	"				
AQF0102-14 (KFF-14-62007)		Soil			Sampled: 06/15/07 11:57					
Gasoline Range Hydrocarbons	AK 101	2180	—	98.7	mg/kg dry	20x	7060164	06/25/07 15:01	06/27/07 14:24	
Benzene	"	36.0	—	0.789	"	"	"	"	"	
Toluene	"	97.0	—	0.987	"	"	"	"	"	
Ethylbenzene	"	58.5	—	0.987	"	"	"	"	"	
Xylenes (total)	"	264	—	1.97	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>			273%		60 - 120 %	1x				ZX
<i>4-BFB (PID)</i>			172%		50 - 150 %	"				ZX
<i>α,α,α - Trifluorotoluene (FID)</i>			196%		60 - 120 %	20x				ZX
AQF0102-15 (KFF-15-62007)		Soil			Sampled: 06/15/07 12:09					
Gasoline Range Hydrocarbons	AK 101	292	—	35.8	mg/kg dry	10x	7060164	06/25/07 15:01	06/27/07 14:49	
Benzene	"	0.812	—	0.286	"	"	"	"	"	
Toluene	"	0.858	—	0.358	"	"	"	"	"	
Ethylbenzene	"	2.45	—	0.358	"	"	"	"	"	
Xylenes (total)	"	12.9	—	0.716	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>			126%		60 - 120 %	1x				ZX
<i>4-BFB (PID)</i>			119%		50 - 150 %	"				
<i>α,α,α - Trifluorotoluene (FID)</i>			93.5%		60 - 120 %	10x				
AQF0102-16 (KFF-16-62007)		Soil			Sampled: 06/15/07 12:21					
Gasoline Range Hydrocarbons	AK 101	10.0	—	5.62	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 22:52	
Benzene	"	0.166	—	0.0449	"	"	"	"	"	
Toluene	"	0.0638	—	0.0562	"	"	"	"	"	
Ethylbenzene	"	0.0797	—	0.0562	"	"	"	"	"	
Xylenes (total)	"	0.403	—	0.112	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>			163%		60 - 120 %	"				ZX
<i>4-BFB (PID)</i>			141%		50 - 150 %	"				
<i>α,α,α - Trifluorotoluene (FID)</i>			86.8%		60 - 120 %	"				

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
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AQF0102-17 (KFF-17-62007)		Soil		Sampled: 06/15/07 12:34						
Gasoline Range Hydrocarbons	AK 101	989	—	71.7	mg/kg dry	10x	7060164	06/25/07 15:01	06/27/07 15:14	
Benzene	*	1.10	—	0.573	"	"	"	"	"	
Toluene	*	1.86	—	0.717	"	"	"	"	"	
Ethylbenzene	*	8.14	—	0.717	"	"	"	"	"	
Xylenes (total)	*	61.9	—	1.43	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			206%		60 - 120 %	1x				ZX
4-BFB (PID)			270%		30 - 150 %	"				ZX
a,a,a - Trifluorotoluene (FID)			93.0%		60 - 120 %	10x				

AQF0102-18 (KFF-18-62007)		Soil		Sampled: 06/15/07 12:48						
Gasoline Range Hydrocarbons	AK 101	342	—	7.62	mg/kg dry	1x	7060164	06/25/07 15:01	06/25/07 23:41	
Benzene	*	0.0787	—	0.0610	"	"	"	"	"	
Toluene	*	0.225	—	0.0762	"	"	"	"	"	
Ethylbenzene	*	1.04	—	0.0762	"	"	"	"	"	
Xylenes (total)	*	6.27	—	0.152	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			2650%		60 - 120 %	"				ZX
4-BFB (PID)			817%		30 - 150 %	"				ZX
a,a,a - Trifluorotoluene (FID)			87.7%		60 - 120 %	"				

AQF0102-19 (KFF-19-62007)		Soil		Sampled: 06/15/07 13:01						
Gasoline Range Hydrocarbons	AK 101	266	—	15.2	mg/kg dry	4x	7060164	06/25/07 15:01	06/27/07 15:38	
Benzene	*	1.51	—	0.121	"	"	"	"	"	
Toluene	*	0.174	—	0.152	"	"	"	"	"	
Ethylbenzene	*	2.09	—	0.152	"	"	"	"	"	
Xylenes (total)	*	7.52	—	0.303	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			947%		60 - 120 %	1x				ZX
4-BFB (PID)			263%		30 - 150 %	"				ZX
a,a,a - Trifluorotoluene (FID)			37.7%		60 - 120 %	4x				Z6

AQF0102-20 (KFF-20-62007)		Soil		Sampled: 06/15/07 13:14						
Gasoline Range Hydrocarbons	AK 101	131	—	9.73	mg/kg dry	4x	7060164	06/25/07 15:01	06/27/07 16:28	
Benzene	*	0.812	—	0.0779	"	"	"	"	"	
Toluene	*	5.69	—	0.0973	"	"	"	"	"	
Ethylbenzene	*	1.52	—	0.0973	"	"	"	"	"	
Xylenes (total)	*	14.1	—	0.195	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			223%		60 - 120 %	1x				ZX
4-BFB (PID)			169%		30 - 150 %	"				ZX
a,a,a - Trifluorotoluene (FID)			38.0%		60 - 120 %	4x				Z6

TestAmerica - Anchorage, AK

Troy J. Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	
P.O. Box 83050	Project Number: [none]	Report Created:
Fairbanks, AK 99708	Project Manager: Lyle Gresehover	07/23/07 09:50

Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101
TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	DU	Batch	Prepared	Analyzed	Notes
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TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created: 07/23/07 09:50
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Conventional Chemistry Parameters by APHA/EPA Methods
TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-01 (KFF-1-62007)		Soil			Sampled: 06/15/07 09:07					
% Solids	TA SOP	73.8	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-02 (KFF-2-62007)		Soil			Sampled: 06/15/07 09:20					
% Solids	TA SOP	83.3	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-03 (KFF-3-62007)		Soil			Sampled: 06/15/07 09:34					
% Solids	TA SOP	81.9	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-04 (KFF-4-62007)		Soil			Sampled: 06/15/07 09:47					
% Solids	TA SOP	85.3	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-05 (KFF-5-62007)		Soil			Sampled: 06/15/07 10:00					
% Solids	TA SOP	72.4	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-06 (KFF-6-62007)		Soil			Sampled: 06/15/07 10:12					
% Solids	TA SOP	73.6	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-07 (KFF-7-62007)		Soil			Sampled: 06/15/07 10:25					
% Solids	TA SOP	68.1	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-08 (KFF-8-62007)		Soil			Sampled: 06/15/07 10:37					
% Solids	TA SOP	76.2	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-09 (KFF-9-62007)		Soil			Sampled: 06/15/07 10:52					
% Solids	TA SOP	83.3	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-10 (KFF-10-62007)		Soil			Sampled: 06/15/07 11:03					
% Solids	TA SOP	84.6	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-11 (KFF-11-62007)		Soil			Sampled: 06/15/07 11:17					

TestAmerica - Anchorage, AK



Troy J Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created: 07/23/07 09:50
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Conventional Chemistry Parameters by APHA/EPA Methods
TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-11 (KFF-11-62007)		Soil			Sampled: 06/15/07 11:17					
% Solids	TA SOP	83.6	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-12 (KFF-12-62007)		Soil			Sampled: 06/15/07 11:31					
% Solids	TA SOP	73.7	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-13 (KFF-13-62007)		Soil			Sampled: 06/15/07 11:44					
% Solids	TA SOP	95.8	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-14 (KFF-14-62007)		Soil			Sampled: 06/15/07 11:57					
% Solids	TA SOP	73.4	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-15 (KFF-15-62007)		Soil			Sampled: 06/15/07 12:09					
% Solids	TA SOP	83.9	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-16 (KFF-16-62007)		Soil			Sampled: 06/15/07 12:21					
% Solids	TA SOP	76.7	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-17 (KFF-17-62007)		Soil			Sampled: 06/15/07 12:34					
% Solids	TA SOP	90.4	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-18 (KFF-18-62007)		Soil			Sampled: 06/15/07 12:48					
% Solids	TA SOP	73.6	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-19 (KFF-19-62007)		Soil			Sampled: 06/15/07 13:01					
% Solids	TA SOP	71.2	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	
AQF0102-20 (KFF-20-62007)		Soil			Sampled: 06/15/07 13:14					
% Solids	TA SOP	78.7	—	0.0100	% by Weight	1x	7070033	06/27/07 17:09	06/28/07 14:35	

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	
P.O. Box 83050	Project Number: [none]	Report Created:
Fairbanks, AK 99708	Project Manager: Lyle Greschovcr	07/23/07 09:50

Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-21 (KFF-21-62007)		Soil					Sampled: 06/15/07 13:26			
Gasoline Range Organics	AK101/8021B	2520	—	169	mg/kg dry	100x	7061110	06/26/07 15:15	06/27/07 14:03	
Benzene	*	19.1	—	0.845	"	"	"	"	"	
Toluene	*	142	—	4.22	"	"	"	"	"	
Ethylbenzene	*	59.3	—	4.22	"	"	"	"	"	
Xylenes (total)	*	335	—	4.22	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		23.9%		50 - 150 %	"				ZX
	a,a,a-TFT (PID)		21.9%		50 - 150 %	"				ZX

AQF0102-22 (KFF-22-62007)		Soil					Sampled: 06/15/07 13:39			
Gasoline Range Organics	AK101/8021B	ND	—	2.63	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 11:46	
Benzene	*	ND	—	0.0132	"	"	"	"	"	
Toluene	*	ND	—	0.0659	"	"	"	"	"	
Ethylbenzene	*	ND	—	0.0659	"	"	"	"	"	
Xylenes (total)	*	ND	—	0.0659	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		49.1%		50 - 150 %	"				Z
	a,a,a-TFT (PID)		46.7%		50 - 150 %	"				Z

AQF0102-23 (KFF-23-62007)		Soil					Sampled: 06/15/07 13:52			
Gasoline Range Organics	AK101/8021B	23.8	—	2.22	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 13:35	
Benzene	*	0.0373	—	0.0111	"	"	"	"	"	
Toluene	*	0.0898	—	0.0556	"	"	"	"	"	
Ethylbenzene	*	0.238	—	0.0556	"	"	"	"	"	
Xylenes (total)	*	0.319	—	0.0556	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		55.5%		50 - 150 %	"				
	a,a,a-TFT (PID)		54.8%		50 - 150 %	"				

AQF0102-24 (KFF-24-62007)		Soil					Sampled: 06/15/07 14:04			
Gasoline Range Organics	AK101/8021B	ND	—	3.29	mg/kg dry	1x	7061110	06/26/07 15:15	06/26/07 22:54	
Benzene	*	ND	—	0.0165	"	"	"	"	"	
Toluene	*	ND	—	0.0823	"	"	"	"	"	
Ethylbenzene	*	ND	—	0.0823	"	"	"	"	"	
Xylenes (total)	*	ND	—	0.0823	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		58.7%		50 - 150 %	"				
	a,a,a-TFT (PID)		47.1%		50 - 150 %	"				Z

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Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	Report Created:
P.O. Box 83050	Project Number: [none]	07/23/07 09:50
Fairbanks, AK 99708	Project Manager: Lyle Greschover	

Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-25 (KFF-25-62007)		Soil		Sampled: 06/15/07 14:13						
Gasoline Range Organics	AK101/8021B	403	—	21.5	mg/kg dry	10x	7061110	06/26/07 15:15	06/27/07 14:58	
Benzene	"	1.89	—	0.108	"	"	"	"	"	
Toluene	"	3.71	—	0.538	"	"	"	"	"	
Ethylbenzene	"	6.53	—	0.538	"	"	"	"	"	
Xylenes (total)	"	22.3	—	0.538	"	"	"	"	"	
<i>Surrogate(s):</i>										
	<i>α,α,α-TFT (FID)</i>		91.6%		50 - 150 %	"				"
	<i>α,α,α-TFT (PID)</i>		88.0%		50 - 150 %	"				"
AQF0102-26 (KFF-26-62007)		Soil		Sampled: 06/15/07 14:22						
Gasoline Range Organics	AK101/8021B	ND	—	5.59	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 12:13	
Benzene	"	ND	—	0.0280	"	"	"	"	"	
Toluene	"	ND	—	0.140	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.140	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.140	"	"	"	"	"	
<i>Surrogate(s):</i>										
	<i>α,α,α-TFT (FID)</i>		63.0%		50 - 150 %	"				"
	<i>α,α,α-TFT (PID)</i>		60.5%		50 - 150 %	"				"
AQF0102-27 (KFF-27-62007)		Soil		Sampled: 06/15/07 14:35						
Gasoline Range Organics	AK101/8021B	641	—	34.2	mg/kg dry	20x	7061110	06/26/07 15:15	06/27/07 16:20	
Benzene	"	2.22	—	0.171	"	"	"	"	"	
Toluene	"	15.8	—	0.856	"	"	"	"	"	
Ethylbenzene	"	13.6	—	0.856	"	"	"	"	"	
Xylenes (total)	"	63.9	—	0.856	"	"	"	"	"	
<i>Surrogate(s):</i>										
	<i>α,α,α-TFT (FID)</i>		107%		50 - 150 %	"				"
	<i>α,α,α-TFT (PID)</i>		97.5%		50 - 150 %	"				"
AQF0102-28 (KFF-28-62007)		Soil		Sampled: 06/15/07 14:48						
Gasoline Range Organics	AK101/8021B	ND	—	2.80	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 12:40	
Benzene	"	0.0598	—	0.0140	"	"	"	"	"	
Toluene	"	ND	—	0.0700	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.0700	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.0700	"	"	"	"	"	
<i>Surrogate(s):</i>										
	<i>α,α,α-TFT (FID)</i>		53.7%		50 - 150 %	"				"
	<i>α,α,α-TFT (PID)</i>		53.4%		50 - 150 %	"				"

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Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-29 (KFF-29-62007)		Soil			Sampled: 06/15/07 15:00					
Gasoline Range Organics	AK101/8021B	5.34	—	3.23	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 01:12	
Benzene	.	0.414	—	0.0161	"	"	"	"	"	
Toluene	.	ND	—	0.0806	"	"	"	"	"	
Ethylbenzene	.	ND	—	0.0806	"	"	"	"	"	
Xylenes (total)	.	0.0939	—	0.0806	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		48.6%		50 - 150 %	"				Z
	a,a,a-TFT (PID)		45.6%		50 - 150 %	"				Z

AQF0102-30 (KFF-30-62007)		Soil			Sampled: 06/15/07 15:13					
Gasoline Range Organics	AK101/8021B	710	—	66.3	mg/kg dry	20x	7061110	06/26/07 15:15	06/27/07 16:47	
Benzene	.	19.1	—	0.332	"	"	"	"	"	
Toluene	.	20.3	—	1.66	"	"	"	"	"	
Ethylbenzene	.	11.1	—	1.66	"	"	"	"	"	
Xylenes (total)	.	79.4	—	1.66	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		55.7%		50 - 150 %	"				
	a,a,a-TFT (PID)		46.9%		50 - 150 %	"				Z

AQF0102-31 (KFF-31-62007)		Soil			Sampled: 06/15/07 15:26					
Gasoline Range Organics	AK101/8021B	1510	—	240	mg/kg dry	100x	7061110	06/26/07 15:15	06/27/07 17:15	
Benzene	.	47.6	—	1.20	"	"	"	"	"	
Toluene	.	209	—	5.99	"	"	"	"	"	
Ethylbenzene	.	49.5	—	5.99	"	"	"	"	"	
Xylenes (total)	.	224	—	5.99	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		79.0%		50 - 150 %	"				
	a,a,a-TFT (PID)		64.6%		50 - 150 %	"				

AQF0102-32 (KFF-DUP1-62007)		Soil			Sampled: 06/15/07 15:40					
Gasoline Range Organics	AK101/8021B	1040	—	107	mg/kg dry	40x	7061110	06/26/07 15:15	06/27/07 18:10	
Benzene	.	18.4	—	0.535	"	"	"	"	"	
Toluene	.	54.3	—	2.68	"	"	"	"	"	
Ethylbenzene	.	41.7	—	2.68	"	"	"	"	"	
Xylenes (total)	.	160	—	2.68	"	"	"	"	"	
Surrogate(s):	a,a,a-TFT (FID)		44.8%		50 - 150 %	"				Z
	a,a,a-TFT (PID)		37.0%		50 - 150 %	"				Z

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Troy J. Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-33 (KFF-DUP2-62007)	Soil		Sampled: 06/15/07 15:53							
Gasoline Range Organics	AK101/8021B	1010	—	79.6	mg/kg dry	40x	7061110	06/26/07 15:15	06/27/07 18:38	
Benzene	"	3.75	—	0.398	"	"	"	"	"	
Toluene	"	25.2	—	1.99	"	"	"	"	"	
Ethylbenzene	"	20.9	—	1.99	"	"	"	"	"	
Xylenes (total)	"	101	—	1.99	"	"	"	"	"	
Surrogate(s):	<i>a,a,a-TFT (FID)</i>		111%		50 - 150 %	"				
	<i>a,a,a-TFT (PID)</i>		97.8%		50 - 150 %	"				

AQF0102-34 (KFF-DUP3-62007)	Soil		Sampled: 06/15/07 16:06							
Gasoline Range Organics	AK101/8021B	722	—	64.3	mg/kg dry	20x	7061110	06/26/07 15:15	06/27/07 19:05	
Benzene	"	24.6	—	0.321	"	"	"	"	"	
Toluene	"	24.8	—	1.61	"	"	"	"	"	
Ethylbenzene	"	10.9	—	1.61	"	"	"	"	"	
Xylenes (total)	"	77.4	—	1.61	"	"	"	"	"	
Surrogate(s):	<i>a,a,a-TFT (FID)</i>		51.7%		50 - 150 %	"				
	<i>a,a,a-TFT (PID)</i>		45.5%		50 - 150 %	"				2

AQF0102-35 (KFF-DUP4-62007)	Soil		Sampled: 06/15/07 16:20							
Gasoline Range Organics	AK101/8021B	ND	—	4.15	mg/kg dry	1x	7061110	06/26/07 15:15	06/27/07 13:08	
Benzene	"	ND	—	0.0208	"	"	"	"	"	
Toluene	"	ND	—	0.104	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.104	"	"	"	"	"	
Xylenes (total)	"	ND	—	0.104	"	"	"	"	"	
Surrogate(s):	<i>a,a,a-TFT (FID)</i>		58.5%		50 - 150 %	"				
	<i>a,a,a-TFT (PID)</i>		56.7%		50 - 150 %	"				

AQF0102-36 (KFF-SS1-62007)	Soil		Sampled: 06/16/07 10:14							
Gasoline Range Organics	AK101/8021B	253	—	7.10	mg/kg dry	2x	7061110	06/26/07 15:15	06/27/07 19:33	
Benzene	"	1.30	—	0.0355	"	"	"	"	"	
Toluene	"	6.54	—	0.177	"	"	"	"	"	
Ethylbenzene	"	5.27	—	0.177	"	"	"	"	"	
Xylenes (total)	"	24.1	—	0.177	"	"	"	"	"	
Surrogate(s):	<i>a,a,a-TFT (FID)</i>		70.3%		50 - 150 %	"				
	<i>a,a,a-TFT (PID)</i>		68.2%		50 - 150 %	"				

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Troy J Engstrom

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	DR	Batch	Prepared	Analyzed	Notes
AQF0102-37 (KFF-SS2-62007)		Soil		Sampled: 06/16/07 10:27						
Gasoline Range Organics	AK101/8021B	392	—	30.0	mg/kg dry	10x	7061110	06/26/07 15:15	06/27/07 20:01	
Benzene	"	2.75	—	0.150	"	"	"	"	"	
Toluene	"	17.4	—	0.750	"	"	"	"	"	
Ethylbenzene	"	10.1	—	0.750	"	"	"	"	"	
Xylenes (total)	"	53.2	—	0.750	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			48.0%		50 - 150 %	"				Z
<i>a,a,o-TFT (PID)</i>			40.6%		50 - 150 %	"				Z
AQF0102-38 (KFF-SS3-62007)		Soil		Sampled: 06/16/07 10:40						
Gasoline Range Organics	AK101/8021B	939	—	77.2	mg/kg dry	20x	7061110	06/26/07 15:15	06/27/07 20:28	
Benzene	"	ND	—	0.386	"	"	"	"	"	
Toluene	"	ND	—	1.93	"	"	"	"	"	
Ethylbenzene	"	4.17	—	1.93	"	"	"	"	"	
Xylenes (total)	"	117	—	1.93	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			54.3%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			42.6%		50 - 150 %	"				Z
AQF0102-39 (KFF-SS4-62007)		Soil		Sampled: 06/16/07 10:54						
Gasoline Range Organics	AK101/8021B	1210	—	140	mg/kg dry	40x	7061110	06/26/07 15:15	06/27/07 21:51	
Benzene	"	8.05	—	0.698	"	"	"	"	"	
Toluene	"	63.1	—	3.49	"	"	"	"	"	
Ethylbenzene	"	6.28	—	3.49	"	"	"	"	"	
Xylenes (total)	"	267	—	3.49	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			90.2%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			76.6%		50 - 150 %	"				
AQF0102-40 (KFF-SS5-62007)		Soil		Sampled: 06/16/07 11:06						
Gasoline Range Organics	AK101/8021B	789	—	30.8	mg/kg dry	10x	7061163	06/27/07 15:35	06/28/07 01:31	
Benzene	"	8.35	—	0.154	"	"	"	"	"	
Toluene	"	53.9	—	0.770	"	"	"	"	"	
Ethylbenzene	"	11.5	—	0.770	"	"	"	"	"	
Xylenes (total)	"	108	—	0.770	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			81.8%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			77.3%		50 - 150 %	"				

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-41 (KFF-SS6-62007)		Soil		Sampled: 06/16/07 11:18						
Gasoline Range Organics	AK101/8021B	534	—	26.9	mg/kg dry	10x	7061163	06/27/07 15:35	06/28/07 03:49	
Benzene	*	1.47	—	0.135	"	"	"	"	"	
Toluene	*	4.17	—	0.673	"	"	"	"	"	
Ethylbenzene	*	10.3	—	0.673	"	"	"	"	"	
Xylenes (total)	*	65.5	—	0.673	"	"	"	"	"	
<i>Surrogate(s): a,a,a-TFT (FID)</i>			65.0%		50 - 150 %	"				
<i>a,a,a-TFT (PID)</i>			55.7%		50 - 150 %	"				
AQF0102-42 (KFF-SS7-62007)		Soil		Sampled: 06/16/07 11:30						
Gasoline Range Organics	AK101/8021B	892	—	30.4	mg/kg dry	10x	7061163	06/27/07 15:35	06/28/07 04:44	
Benzene	*	7.80	—	0.152	"	"	"	"	"	
Toluene	*	29.0	—	0.759	"	"	"	"	"	
Ethylbenzene	*	16.0	—	0.759	"	"	"	"	"	
Xylenes (total)	*	74.9	—	0.759	"	"	"	"	"	
<i>Surrogate(s): a,a,a-TFT (FID)</i>			91.3%		50 - 150 %	"				
<i>a,a,a-TFT (PID)</i>			85.2%		50 - 150 %	"				
AQF0102-43 (KFF-SS8-62007)		Soil		Sampled: 06/16/07 11:44						
Gasoline Range Organics	AK101/8021B	77.5	—	3.77	mg/kg dry	1x	7061163	06/27/07 15:35	06/28/07 11:54	
Benzene	*	0.710	—	0.0188	"	"	"	"	"	
Toluene	*	2.16	—	0.0942	"	"	"	"	"	
Ethylbenzene	*	1.86	—	0.0942	"	"	"	"	"	
Xylenes (total)	*	13.6	—	0.0942	"	"	"	"	"	
<i>Surrogate(s): a,a,a-TFT (FID)</i>			54.7%		50 - 150 %	"				
<i>a,a,a-TFT (PID)</i>			52.1%		50 - 150 %	"				
AQF0102-44 (KFF-SS9-62007)		Soil		Sampled: 06/16/07 11:58						
Gasoline Range Organics	AK101/8021B	719	—	30.1	mg/kg dry	10x	7061163	06/27/07 15:35	06/28/07 05:39	
Benzene	*	9.24	—	0.151	"	"	"	"	"	
Toluene	*	35.1	—	0.753	"	"	"	"	"	
Ethylbenzene	*	13.7	—	0.753	"	"	"	"	"	
Xylenes (total)	*	94.2	—	0.753	"	"	"	"	"	
<i>Surrogate(s): a,a,a-TFT (FID)</i>			62.6%		50 - 150 %	"				
<i>a,a,a-TFT (PID)</i>			56.8%		50 - 150 %	"				

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Troy J. Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-45 (KFF-SS10-62007)		Soil				Sampled: 06/16/07 12:11				
Gasoline Range Organics	AK101/8021B	359	---	16.0	mg/kg dry	4x	7061163	06/27/07 15:35	06/28/07 11:27	
Benzene	"	0.294	---	0.0802	"	"	"	"	"	
Toluene	"	0.416	---	0.401	"	"	"	"	"	
Ethylbenzene	"	2.08	---	0.401	"	"	"	"	"	
Xylenes (total)	"	10.4	---	0.401	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			37.9%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			54.7%		50 - 150 %	"				
AQF0102-47 (Trip Blank)		Soil				Sampled: 06/15/07 00:00				
Gasoline Range Organics	AK101/8021B	ND	---	4.00	mg/kg wet	1x	7061110	06/26/07 15:15	06/27/07 11:18	
Benzene	"	ND	---	0.0200	"	"	"	"	"	
Toluene	"	ND	---	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	---	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	---	0.100	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			82.3%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			78.4%		50 - 150 %	"				
AQF0102-48 (Trip Blank)		Soil				Sampled: 06/16/07 00:00				
Gasoline Range Organics	AK101/8021B	ND	---	4.00	mg/kg wet	1x	7061163	06/27/07 15:35	06/28/07 01:03	
Benzene	"	ND	---	0.0200	"	"	"	"	"	
Toluene	"	ND	---	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	---	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	---	0.100	"	"	"	"	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>			77.4%		50 - 150 %	"				
<i>a,a,o-TFT (PID)</i>			73.5%		50 - 150 %	"				

TestAmerica - Anchorage, AK

Troy J. Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name Kobuk Feed and Fuel Project Number [none] Project Manager Lyle Grechover	Report Created 07/23/07 09:50
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Percent Dry Weight (Solids) per Standard Methods
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-21 (KFF-21-62007)		Soil			Sampled: 06/15/07 13:26					
% Solids	NCA SOP	92.1	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-22 (KFF-22-62007)		Soil			Sampled: 06/15/07 13:39					
% Solids	NCA SOP	73.6	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-23 (KFF-23-62007)		Soil			Sampled: 06/15/07 13:52					
% Solids	NCA SOP	86.7	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-24 (KFF-24-62007)		Soil			Sampled: 06/15/07 14:04					
% Solids	NCA SOP	74.1	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-25 (KFF-25-62007)		Soil			Sampled: 06/15/07 14:13					
% Solids	NCA SOP	97.8	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-26 (KFF-26-62007)		Soil			Sampled: 06/15/07 14:22					
% Solids	NCA SOP	71.3	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-27 (KFF-27-62007)		Soil			Sampled: 06/15/07 14:35					
% Solids	NCA SOP	96.3	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-28 (KFF-28-62007)		Soil			Sampled: 06/15/07 14:48					
% Solids	NCA SOP	78.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-29 (KFF-29-62007)		Soil			Sampled: 06/15/07 15:00					
% Solids	NCA SOP	69.7	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-30 (KFF-30-62007)		Soil			Sampled: 06/15/07 15:13					
% Solids	NCA SOP	75.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-31 (KFF-31-62007)		Soil			Sampled: 06/15/07 15:26					

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name Project Number Project Manager	Kobuk Feed and Fuel [none] Lyle Greschover	Report Created 07/23/07 09:50
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Percent Dry Weight (Solids) per Standard Methods
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-31 (KFF-31-62007)		Soil			Sampled: 06/15/07 15:26					
% Solids	NCA SOP	79.5	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-32 (KFF-DUP1-62007)		Soil			Sampled: 06/15/07 15:40					
% Solids	NCA SOP	82.7	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-33 (KFF-DUP2-62007)		Soil			Sampled: 06/15/07 15:53					
% Solids	NCA SOP	96.6	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-34 (KFF-DUP3-62007)		Soil			Sampled: 06/15/07 16:06					
% Solids	NCA SOP	74.6	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-35 (KFF-DUP4-62007)		Soil			Sampled: 06/15/07 16:20					
% Solids	NCA SOP	73.7	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-36 (KFF-SS1-62007)		Soil			Sampled: 06/16/07 10:14					
% Solids	NCA SOP	84.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-37 (KFF-SS2-62007)		Soil			Sampled: 06/16/07 10:27					
% Solids	NCA SOP	79.1	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-38 (KFF-SS3-62007)		Soil			Sampled: 06/16/07 10:40					
% Solids	NCA SOP	85.6	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-39 (KFF-SS4-62007)		Soil			Sampled: 06/16/07 10:54					
% Solids	NCA SOP	78.6	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-40 (KFF-SS5-62007)		Soil			Sampled: 06/16/07 11:06					
% Solids	NCA SOP	80.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-41 (KFF-SS6-62007)		Soil			Sampled: 06/16/07 11:18					

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Troy J Engstrom

Troy J Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	Report Created
P.O. Box 83050	Project Number: [none]	07/23/07 09:50
Fairbanks, AK 99708	Project Manager: Lyle Greschover	

Percent Dry Weight (Solids) per Standard Methods
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-41 (KFF-SS6-62007)		Soil			Sampled: 06/16/07 11:18					
% Solids	NCA SOP	81.8	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-42 (KFF-SS7-62007)		Soil			Sampled: 06/16/07 11:30					
% Solids	NCA SOP	79.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-43 (KFF-SS8-62007)		Soil			Sampled: 06/16/07 11:44					
% Solids	NCA SOP	81.9	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-44 (KFF-SS9-62007)		Soil			Sampled: 06/16/07 11:58					
% Solids	NCA SOP	85.2	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01
AQF0102-45 (KFF-SS10-62007)		Soil			Sampled: 06/16/07 12:11					
% Solids	NCA SOP	83.0	—	0.00	% by Weight	1x	7070826	07/20/07 18:08	07/20/07 18:36	A-01

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Total Metals by EPA 6000/7000 Series Methods
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	DI	Batch	Prepared	Analyzed	Notes
AQF0102-46RE1 (KFF-BS1-62007)		Soil			Sampled: 06/16/07 12:31					
Lead	EPA 6020	83.2	---	0.590	mg/kg dry	1x	7F26038	06/26/07 15:58	06/27/07 08:58	

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Troy J Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	
P.O. Box 83050	Project Number: [none]	Report Created:
Fairbanks, AK 99708	Project Manager: Lyle Gresehover	07/23/07 09:50

Physical Parameters by APHA/ASTM/EPA Methods
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
AQF0102-46 (KFF-BS1-62007)		Soil			Sampled: 06/16/07 12:31					
Dry Weight	BSOPSPL003R0	85.6	—	1.00	%	1x	7F28034	06/28/07 14:08	06/29/07 00:00	

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102 - Laboratory Quality Control Results
 TestAmerica - Anchorage, AK

QC Batch: 7060129 Soil Preparation Method: EPA 3545

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (7060129-BLK1)													Extracted: 06/27/07 15:51			
Diesel Range Organics	AK 102	ND	--	20.0	mg/kg wet	1x	--	--	--	--	--	--	06/29/07 11:34			
Surrogate(s): 1-Chlorooctadecane		Recovery: 89.0%		Limits: 50-150%									06/29/07 11:34			
LCS (7060129-BS1)													Extracted: 06/27/07 15:51			
Diesel Range Organics	AK 102	129	--	20.0	mg/kg wet	1x	--	126	102%	(75-125)	--	--	06/29/07 12:07			
Surrogate(s): 1-Chlorooctadecane		Recovery: 92.1%		Limits: 60-120%									06/29/07 12:07			
LCS Dup (7060129-BSD1)													Extracted: 06/27/07 15:51			
Diesel Range Organics	AK 102	127	--	20.0	mg/kg wet	1x	--	126	101%	(75-125)	1.64%	(20)	06/29/07 12:40			
Surrogate(s): 1-Chlorooctadecane		Recovery: 93.0%		Limits: 60-120%									06/29/07 12:40			
Duplicate (7060129-DUPI)													QC Source: AQP0102-01		Extracted: 06/27/07 15:51	
Diesel Range Organics	AK 102	ND	--	20.0	mg/kg dry	1x	ND	--	--	--	0.152%	(20)	06/29/07 11:34			
Surrogate(s): 1-Chlorooctadecane		Recovery: 85.7%		Limits: 50-150%									06/29/07 11:34			
Matrix Spike (7060129-MS1)													QC Source: AQP0102-01		Extracted: 06/27/07 15:51	
Diesel Range Organics	AK 102	164	--	20.0	mg/kg dry	1x	5.95	170	93.0%	(75-125)	--	--	06/29/07 12:40			
Surrogate(s): 1-Chlorooctadecane		Recovery: 87.3%		Limits: 50-150%									06/29/07 12:40			
Matrix Spike Dup (7060129-MSD1)													QC Source: AQP0102-01		Extracted: 06/27/07 15:51	
Diesel Range Organics	AK 102	167	--	20.0	mg/kg dry	1x	5.95	165	97.3%	(75-125)	1.40%	(25)	06/29/07 13:13			
Surrogate(s): 1-Chlorooctadecane		Recovery: 88.8%		Limits: 50-150%									06/29/07 13:13			

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102 - Laboratory Quality Control Results
 TestAmerica - Anchorage, AK

QC Batch: 7060131 **Soil Preparation Method:** EPA 3545

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (7060131-BLK1)													Extracted: 06/28/07 08:27			
Diesel Range Organics	AK 102	ND	--	20.0	mg/kg wet	1x	--	--	--	--	--	--	06/28/07 13:10			
Surrogate(s): 1-Chlorooctadecane		Recovery: 88.8%		Limits: 50-150%		"						06/28/07 13:10				
LCS (7060131-BS1)													Extracted: 06/28/07 08:27			
Diesel Range Organics	AK 102	128	--	20.0	mg/kg wet	1x	--	126	102%	(75-125)	--	--	06/28/07 13:42			
Surrogate(s): 1-Chlorooctadecane		Recovery: 92.5%		Limits: 60-120%		"						06/28/07 13:42				
LCS Dup (7060131-BSD1)													Extracted: 06/28/07 08:27			
Diesel Range Organics	AK 102	129	--	20.0	mg/kg wet	1x	--	126	102%	(75-125)	0.276% (20)		06/28/07 14:15			
Surrogate(s): 1-Chlorooctadecane		Recovery: 91.2%		Limits: 60-120%		"						06/28/07 14:15				
Duplicate (7060131-DUP1)													QC Source: AQF0142-01		Extracted: 06/28/07 08:27	
Diesel Range Organics	AK 102	100	--	20.0	mg/kg dry	1x	161	--	--	--	46.4% (20)		06/28/07 13:10	R2		
Surrogate(s): 1-Chlorooctadecane		Recovery: 84.2%		Limits: 50-150%		"						06/28/07 13:10				
Matrix Spike (7060131-MS1)													QC Source: AQF0142-01		Extracted: 06/28/07 08:27	
Diesel Range Organics	AK 102	237	--	20.0	mg/kg dry	1x	161	125	61.1%	(75-125)	--	--	06/28/07 14:15	M8		
Surrogate(s): 1-Chlorooctadecane		Recovery: 94.1%		Limits: 50-150%		"						06/28/07 14:15				
Matrix Spike Dup (7060131-MSD1)													QC Source: AQF0142-01		Extracted: 06/28/07 08:27	
Diesel Range Organics	AK 102	245	--	17.7	mg/kg dry	1x	161	115	73.1%	(75-125)	3.34% (25)		06/28/07 14:47	M8		
Surrogate(s): 1-Chlorooctadecane		Recovery: 93.5%		Limits: 50-150%		"						06/28/07 14:47				

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Diesel Range Organics (C10-C25) per AK102 - Laboratory Quality Control Results
 TestAmerica - Anchorage, AK

QC Batch: 7060135 Soil Preparation Method: EPA 3545

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (7060135-BLK1)													Extracted: 06/29/07 07:59			
Diesel Range Organics	AK 102	ND	—	20.0	mg/kg wet	1x	—	—	—	—	—	—	06/30/07 16:52			
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 91.7%</i>			<i>Limits: 50-150%</i>								06/30/07 16:52			
LCS (7060135-BS1)													Extracted: 06/29/07 07:59			
Diesel Range Organics	AK 102	137	—	20.0	mg/kg wet	1x	—	126	109%	(75-125)	—	—	06/30/07 17:25			
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 99.3%</i>			<i>Limits: 60-120%</i>								06/30/07 17:25			
LCS Dup (7060135-BSD1)													Extracted: 06/29/07 07:59			
Diesel Range Organics	AK 102	122	—	20.0	mg/kg wet	1x	—	126	96.4%	(75-125)	11.9%	(20)	06/30/07 17:58			
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 93.6%</i>			<i>Limits: 60-120%</i>								06/30/07 17:58			
Duplicate (7060135-DUP1)													QC Source: AQP0102-36		Extracted: 06/29/07 07:59	
Diesel Range Organics	AK 102	1200	—	20.0	mg/kg dry	1x	1380	—	—	—	13.7%	(20)	06/30/07 16:52			
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 95.3%</i>			<i>Limits: 50-150%</i>								06/30/07 16:52			
Matrix Spike (7060135-MS1)													QC Source: AQP0102-36		Extracted: 06/29/07 07:59	
Diesel Range Organics	AK 102	1480	—	20.0	mg/kg dry	1x	1380	143	69.5%	(75-125)	—	—	06/30/07 17:58	MHA		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 100%</i>			<i>Limits: 50-150%</i>								06/30/07 17:58			
Matrix Spike Dup (7060135-MSD1)													QC Source: AQP0102-36		Extracted: 06/29/07 07:59	
Diesel Range Organics	AK 102	1420	—	20.0	mg/kg dry	1x	1380	147	30.7%	(75-125)	3.74%	(25)	06/30/07 18:31	MHA		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 94.1%</i>			<i>Limits: 50-150%</i>								06/30/07 18:31			

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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created 07/23/07 09:50
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Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results
 TestAmerica - Anchorage, AK

QC Batch: 7060130 Soil Preparation Method: *** DEFAULT PREP

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Duplicate (7060130-DUP1) QC Source: AQP0102-01 Extracted: 06/27/07 17:09

Dry Weight	TA-SOP	73.8	—	1.00	%	1x	73.8	—	—	—	0.0813% (25)	06/28/07 14:35	
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QC Batch: 7060133 Soil Preparation Method: *** DEFAULT PREP

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Duplicate (7060133-DUP1) QC Source: AQP0142-01 Extracted: 06/28/07 11:28

Dry Weight	TA-SOP	96.8	—	1.00	%	1x	97.0	—	—	—	0.237% (25)	06/28/07 16:29	
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QC Batch: 7060136 Soil Preparation Method: *** DEFAULT PREP

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Duplicate (7060136-DUP1) QC Source: AQP0102-36 Extracted: 06/29/07 09:57

Dry Weight	TA-SOP	81.6	—	1.00	%	1x	84.0	—	—	—	2.87% (25)	06/30/07 16:33	
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Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101 - Laboratory Quality Control Results
 TestAmerica - Spokane, WA

QC Batch: 7060164 Soil Preparation Method: GC Volatiles

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Blank (7060164-BLK1) Extracted: 06/25/07 15:01

Gasoline Range Hydrocarbons	AK 101	ND	---	5.00	mg/kg wet	1x	--	--	--	--	--	--	06/27/07 18:32	
Benzene	"	ND	---	0.0400	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery:</i>	<i>88.5%</i>										<i>06/27/07 18:32</i>	
<i>4-BFB (PID)</i>			<i>106%</i>										<i>"</i>	
<i>a,a,a - Trifluorotoluene (FID)</i>			<i>108%</i>										<i>"</i>	

LCS (7060164-BS1) Extracted: 06/25/07 15:01

Gasoline Range Hydrocarbons	AK 101	41.0	---	5.00	mg/kg wet	1x	--	50.0	82.0%	(80-120)	--	--	06/27/07 16:33	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery:</i>	<i>137%</i>										<i>06/27/07 16:33</i>	<i>Z1</i>
<i>a,a,a - Trifluorotoluene (FID)</i>			<i>132%</i>										<i>"</i>	<i>Z1</i>

LCS (7060164-BS2) Extracted: 06/25/07 15:01

Benzene	AK 101	0.481	---	0.0400	mg/kg wet	1x	--	0.500	96.3%	(80-120)	--	--	06/27/07 17:43	
Toluene	"	0.564	---	0.0500	"	"	--	"	113%	"	--	--	"	
Ethylbenzene	"	0.592	---	0.0500	"	"	--	"	118%	"	--	--	"	
Xylenes (total)	"	1.80	---	0.100	"	"	--	1.50	120%	"	--	--	"	
<i>Surrogate(s): 4-BFB (PID)</i>		<i>Recovery:</i>	<i>103%</i>										<i>06/27/07 17:43</i>	
<i>a,a,a - Trifluorotoluene (FID)</i>			<i>99.2%</i>										<i>"</i>	

LCS Dup (7060164-BSD1) Extracted: 06/25/07 15:01

Gasoline Range Hydrocarbons	AK 101	43.1	---	5.00	mg/kg wet	1x	--	50.0	86.3%	(80-120)	5.07%	(20)	06/27/07 17:18	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery:</i>	<i>147%</i>										<i>06/27/07 17:18</i>	<i>Z1</i>
<i>a,a,a - Trifluorotoluene (FID)</i>			<i>139%</i>										<i>"</i>	<i>Z1</i>

LCS Dup (7060164-BSD2) Extracted: 06/25/07 15:01

Benzene	AK 101	0.465	---	0.0400	mg/kg wet	1x	--	0.500	93.0%	(80-120)	3.48%	(20)	06/27/07 18:07	
Toluene	"	0.543	---	0.0500	"	"	--	"	109%	"	3.70%	"	"	
Ethylbenzene	"	0.568	---	0.0500	"	"	--	"	114%	"	4.13%	"	"	
Xylenes (total)	"	1.74	---	0.100	"	"	--	1.50	116%	"	3.53%	"	"	
<i>Surrogate(s): 4-BFB (PID)</i>		<i>Recovery:</i>	<i>108%</i>										<i>06/27/07 18:07</i>	
<i>a,a,a - Trifluorotoluene (FID)</i>			<i>97.9%</i>										<i>"</i>	

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Hydrocarbons (n-Hexane to <n-Decane) and BTEX by AK101 - Laboratory Quality Control Results
 TestAmerica - Spokane, WA

QC Batch: 7060164 **Soil Preparation Method: GC Volatiles**

Analytic	Method	Result	MDL*	MRL	Units	DH	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
----------	--------	--------	------	-----	-------	----	---------------	-----------	-------	----------	-------	----------	----------	-------

Duplicate (7060164-DUP1)		QC Source: AQP0102-09				Extracted: 06/25/07 15:01								
Gasoline Range Hydrocarbons	AK 101	41.0	---	2.49	mg/kg dry	1x	42.4	--	--	--	3.46% (20)	06/25/07 18:46		
Benzene	"	ND	---	0.0199	"	"	ND	--	--	--	2.33% "	"		
Toluene	"	0.0256	---	0.0249	"	"	0.0270	--	--	--	5.53% "	"		
Ethylbenzene	"	0.0846	---	0.0249	"	"	0.0850	--	--	--	0.542% "	"		
Xylenes (total)	"	1.84	---	0.0497	"	"	1.85	--	--	--	0.402% "	"		
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 808%</i>		<i>Limits: 60-120%</i>								<i>06/25/07 18:46</i>		<i>ZX</i>
<i>4-BFB (PID)</i>		<i>131%</i>		<i>50-150%</i>								<i>"</i>		<i>"</i>
<i>a,a,a - Trifluorotoluene (FID)</i>		<i>82.2%</i>		<i>60-120%</i>								<i>"</i>		<i>"</i>

Duplicate (7060164-DUP2)		QC Source: AQP0102-19				Extracted: 06/25/07 15:01								
Gasoline Range Hydrocarbons	AK 101	270	---	15.2	mg/kg dry	4x	266	--	--	--	1.72% (20)	06/27/07 16:03		
Benzene	"	1.53	---	0.121	"	"	1.51	--	--	--	1.11% "	"		
Toluene	"	0.175	---	0.152	"	"	0.174	--	--	--	1.09% "	"		
Ethylbenzene	"	2.19	---	0.152	"	"	2.09	--	--	--	4.71% "	"		
Xylenes (total)	"	7.92	---	0.303	"	"	7.52	--	--	--	5.17% "	"		
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 1010%</i>		<i>Limits: 60-120%</i>		<i>1x</i>						<i>06/27/07 16:03</i>		<i>ZX</i>
<i>4-BFB (PID)</i>		<i>280%</i>		<i>50-150%</i>		<i>"</i>						<i>"</i>		<i>ZX</i>
<i>a,a,a - Trifluorotoluene (FID)</i>		<i>56.1%</i>		<i>60-120%</i>		<i>4x</i>						<i>"</i>		<i>Z6</i>

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greshover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 7061110 **Soil Preparation Method: AK101 Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Blank (7061110-BLK1) Extracted: 06/26/07 15:15

Gasoline Range Organics	AK101/8021 B	ND	---	3.90	mg/kg wet	1x	---	---	---	---	---	---	06/26/07 18:49	
Benzene	"	ND	---	0.0195	"	"	---	---	---	---	---	---	"	
Toluene	"	ND	---	0.0974	"	"	---	---	---	---	---	---	"	
Ethylbenzene	"	ND	---	0.0974	"	"	---	---	---	---	---	---	"	
Xylenes (total)	"	ND	---	0.0974	"	"	---	---	---	---	---	---	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery:</i>	<i>82.3%</i>	<i>Limits: 50-150%</i>		"							06/26/07 18:49	
<i>a,a,o-TFT (PID)</i>		<i>Recovery:</i>	<i>78.5%</i>	<i>50-150%</i>		"							"	

LCS (7061110-BS1) Extracted: 06/26/07 15:15

Benzene	AK101/8021 B	0.934	---	0.0198	mg/kg wet	1x	---	0.989	94.4%	(70-130)	---	---	06/26/07 17:54	
Toluene	"	0.980	---	0.0989	"	"	---	"	99.1%	"	---	---	"	
Ethylbenzene	"	1.02	---	0.0989	"	"	---	"	103%	"	---	---	"	
Xylenes (total)	"	3.03	---	0.0989	"	"	---	2.97	102%	"	---	---	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery:</i>	<i>80.3%</i>	<i>Limits: 50-150%</i>		"							06/26/07 17:54	

LCS (7061110-BS2) Extracted: 06/26/07 15:15

Gasoline Range Organics	AK101/8021 B	24.8	---	3.91	mg/kg wet	1x	---	24.4	102%	(60-120)	---	---	06/26/07 16:58	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery:</i>	<i>82.9%</i>	<i>Limits: 50-150%</i>		"							06/26/07 16:58	

LCS Dup (7061110-BSD1) Extracted: 06/26/07 15:15

Benzene	AK101/8021 B	1.00	---	0.0198	mg/kg wet	1x	---	0.990	101%	(70-130)	6.89% (20)	---	06/26/07 18:21	
Toluene	"	1.03	---	0.0990	"	"	---	"	104%	"	4.74%	"	"	
Ethylbenzene	"	1.08	---	0.0990	"	"	---	"	109%	"	6.54%	"	"	
Xylenes (total)	"	3.21	---	0.0990	"	"	---	2.97	108%	"	5.87%	"	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery:</i>	<i>79.0%</i>	<i>Limits: 50-150%</i>		"							06/26/07 18:21	

LCS Dup (7061110-BSD2) Extracted: 06/26/07 15:15

Gasoline Range Organics	AK101/8021 B	24.4	---	3.93	mg/kg wet	1x	---	24.6	99.2%	(60-120)	1.84% (20)	---	06/26/07 17:26	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery:</i>	<i>82.5%</i>	<i>Limits: 50-150%</i>		"							06/26/07 17:26	

Duplicate (7061110-DUP1) QC Source: AQP0182-21 Extracted: 06/26/07 15:15

Gasoline Range Organics	AK101/8021 B	2400	---	169	mg/kg dry	100x	2520	---	---	---	4.76% (50)	---	06/27/07 14:30	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery:</i>	<i>200%</i>	<i>Limits: 50-150%</i>		"							06/27/07 14:30	ZY

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Gresehover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 7061110 Soil Preparation Method: AK101 Prep

Analyte	Method	Result	MDL ^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Duplicate (7061110-DUP2) **QC Source: AQF0102-31** **Extracted: 06/26/07 15:15**

Gasoline Range Organics	AK101/8021 B	1480	—	240	mg/kg dry	100x	1510	—	—	—	2.05% (50)		06/27/07 17:43	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery: 80.0%</i>		<i>Limits: 50-150%</i>									06/27/07 17:43	

Matrix Spike (7061110-MS1) **QC Source: AQF0102-22** **Extracted: 06/26/07 15:15**

Benzene	AK101/8021 B	0.590	—	0.0132	mg/kg dry	1x	0.00306	0.659	89.1%	(65-130)	—	—	06/26/07 20:38	
Toluene	"	0.661	—	0.0659	"	"	0.00418	"	99.7%	"	—	—	"	
Ethylbenzene	"	0.687	—	0.0659	"	"	0.0123	"	102%	"	—	—	"	
Xylenes (total)	"	2.02	—	0.0659	"	"	ND	1.98	102%	"	—	—	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 48.9%</i>		<i>Limits: 50-150%</i>									06/26/07 20:38	Z

Matrix Spike Dup (7061110-MSD1) **QC Source: AQF0102-22** **Extracted: 06/26/07 15:15**

Benzene	AK101/8021 B	0.647	—	0.0132	mg/kg dry	1x	0.00306	0.659	97.7%	(65-130)	9.19%	(20)	06/26/07 21:05	
Toluene	"	0.705	—	0.0659	"	"	0.00418	"	106%	"	6.44%	"	"	
Ethylbenzene	"	0.738	—	0.0659	"	"	0.0123	"	110%	"	7.21%	"	"	
Xylenes (total)	"	2.15	—	0.0659	"	"	ND	1.98	109%	"	6.28%	"	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 43.6%</i>		<i>Limits: 50-150%</i>									06/26/07 21:05	Z

QC Batch: 7061163 Soil Preparation Method: AK101 Prep

Analyte	Method	Result	MDL ^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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Blank (7061163-BLK1) **Extracted: 06/27/07 15:00**

Gasoline Range Organics	AK101/8021 B	ND	—	4.01	mg/kg wet	1x	—	—	—	—	—	—	06/28/07 00:36	
Benzene	"	ND	—	0.0201	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery: 83.0%</i>		<i>Limits: 50-150%</i>									06/28/07 00:36	
<i>a,a,o-TFT (PID)</i>		<i>79.3%</i>		<i>50-150%</i>									"	

LCS (7061163-BS1) **Extracted: 06/27/07 15:00**

Benzene	AK101/8021 B	1.01	—	0.0200	mg/kg wet	1x	—	1.00	100%	(70-130)	—	—	06/27/07 23:41	
Toluene	"	1.05	—	0.100	"	"	—	"	105%	"	—	—	"	
Ethylbenzene	"	1.09	—	0.100	"	"	—	"	109%	"	—	—	"	
Xylenes (total)	"	3.20	—	0.100	"	"	—	3.00	106%	"	—	—	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 81.0%</i>		<i>Limits: 50-150%</i>									06/27/07 23:41	

TestAmerica - Anchorage, AK

Troy J. Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Greschover	Report Created: 07/23/07 09:50
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Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 7061163 Soil Preparation Method: AK101 Prep

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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LCS (7061163-BS2) Extracted: 06/27/07 15:00

Gasoline Range Organics	AK101/8021 B	24.3	—	3.95	mg/kg wet	1x	—	24.7	98.5%	(60-120)	—	—	06/27/07 22:46	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery: 85.0%</i>		<i>Limits: 50-150%</i>								<i>06/27/07 22:46</i>		

LCS Dup (7061163-BSD1) Extracted: 06/27/07 15:00

Benzene	AK101/8021 B	1.06	—	0.0200	mg/kg wet	1x	—	0.998	106%	(70-130)	5.37%	(20)	06/28/07 00:08	
Toluene	"	1.09	—	0.0998	"	"	—	"	109%	"	3.54%	"	"	
Ethylbenzene	"	1.15	—	0.0998	"	"	—	"	115%	"	5.69%	"	"	
Xylenes (total)	"	3.37	—	0.0998	"	"	—	3.00	113%	"	5.34%	"	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 82.3%</i>		<i>Limits: 50-150%</i>								<i>06/28/07 00:08</i>		

LCS Dup (7061163-BSD2) Extracted: 06/27/07 15:00

Gasoline Range Organics	AK101/8021 B	24.4	—	3.95	mg/kg wet	1x	—	24.7	98.7%	(60-120)	0.125%	(20)	06/27/07 23:13	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery: 86.1%</i>		<i>Limits: 50-150%</i>								<i>06/27/07 23:13</i>		

Duplicate (7061163-DUP1) QC Source: AQF0102-41 Extracted: 06/27/07 15:00

Gasoline Range Organics	AK101/8021 B	531	—	26.9	mg/kg dry	10x	534	—	—	—	0.531%	(50)	06/28/07 04:17	
<i>Surrogate(s): a,a,o-TFT (FID)</i>		<i>Recovery: 62.4%</i>		<i>Limits: 50-150%</i>								<i>06/28/07 04:17</i>		

Matrix Spike (7061163-MS1) QC Source: AQF0102-40 Extracted: 06/27/07 15:00

Benzene	AK101/8021 B	15.5	—	0.154	mg/kg dry	10x	8.35	7.70	93.2%	(65-130)	—	—	06/28/07 01:59	
Toluene	"	61.4	—	0.770	"	"	53.9	"	97.5%	"	—	—	"	
Ethylbenzene	"	19.5	—	0.770	"	"	11.5	"	104%	"	—	—	"	
Xylenes (total)	"	128	—	0.770	"	"	108	23.1	88.2%	"	—	—	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 71.4%</i>		<i>Limits: 50-150%</i>								<i>06/28/07 01:59</i>		

Matrix Spike Dup (7061163-MSD1) QC Source: AQF0102-40 Extracted: 06/27/07 15:00

Benzene	AK101/8021 B	15.4	—	0.154	mg/kg dry	10x	8.35	7.70	92.0%	(65-130)	0.622%	(20)	06/28/07 03:21	
Toluene	"	60.0	—	0.770	"	"	53.9	"	78.5%	"	2.41%	"	"	
Ethylbenzene	"	19.4	—	0.770	"	"	11.5	"	104%	"	0.291%	"	"	
Xylenes (total)	"	126	—	0.770	"	"	108	23.1	79.8%	"	1.52%	"	"	
<i>Surrogate(s): a,a,o-TFT (PID)</i>		<i>Recovery: 72.8%</i>		<i>Limits: 50-150%</i>								<i>06/28/07 03:21</i>		

TestAmerica - Anchorage, AK

Troy J Engstrom

Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services P.O. Box 83050 Fairbanks, AK 99708	Project Name: Kobuk Feed and Fuel Project Number: [none] Project Manager: Lyle Groschever	Report Created: 07/23/07 09:50
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Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 7F26038 Soil Preparation Method: EPA 3050B

Analyte	Method	Result	MDL ^a	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (7F26038-BLK1)													Extracted: 06/26/07 15:58			
Lead	EPA 6020	ND	--	0.500	mg/kg wet	1x	--	--	--	--	--	--	06/27/07 08:22			
LCS (7F26038-BS1)													Extracted: 06/26/07 15:58			
Lead	EPA 6020	36.8	--	0.500	mg/kg wet	1x	--	40.0	91.9%	(80-120)	--	--	06/27/07 08:28			
Duplicate (7F26038-DUP1)													QC Source: AQP0102-46		Extracted: 06/26/07 15:58	
Lead	EPA 6020	6.58	--	0.590	mg/kg dry	1x	83.2	--	--	--	171%	(30)	06/27/07 08:46	R4		
Matrix Spike (7F26038-MS1)													QC Source: AQP0102-46		Extracted: 06/26/07 15:58	
Lead	EPA 6020	48.5	--	0.573	mg/kg dry	1x	83.2	45.8	-75.9%	(29-166)	--	--	06/27/07 08:40	M2		
Post Spike (7F26038-PS1)													QC Source: AQP0102-46		Extracted: 06/26/07 15:58	
Lead	EPA 6020	0.240	--		ug/ml	1x	0.141	0.100	98.9%	(75-125)	--	--	06/27/07 08:34			

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

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Alaska Resources & Environmental Services	Project Name: Kobuk Feed and Fuel	
P.O. Box 83050	Project Number: [none]	Report Created:
Fairbanks, AK 99708	Project Manager: Lyle Greschover	07/23/07 09:50

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 7F28034 **Soil Preparation Method:** Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	DU	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7F28034-BLK1)										Extracted: 06/28/07 14:08				
Dry Weight	BSOPSP1.00 JR08	99.9	--	1.00	%	1x	--	--	--	--	--	--	06/29/07 00:00	

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Alaska Resources & Environmental Services

P.O. Box 83050
Fairbanks, AK 99708

Project Name: **Kobuk Feed and Fuel**
Project Number: [none]
Project Manager: Lyle Greschover

Report Created:
07/23/07 09.50

Notes and Definitions

Report Specific Notes:

- A-01 - Data supplied by TA-Anchorage.
- M2 - The MS and/or MSD were below 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).
- 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).
- 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.
- RL7 - Sample required dilution due to high concentrations of target analyte.
- Z - Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
- Z1 - Surrogate recovery was above acceptance limits.
- Z6 - Surrogate recovery was below acceptance limits.
- ZX - Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica - Anchorage, AK



Troy J. Engstrom, Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CHAIN OF CUSTODY REPORT

Work Order #: **ADFO102**

CLIENT: Alaska Resources and Environmental Services				INVOICE TO: Alaska Resources and Environmental Services P.O. Box 83050 Fairbanks, Alaska 99708				TURNAROUND REQUEST In Business Days *											
REPORT TO: email: lyle@ak-res.com ADDRESS: Mail: P.O. Box 83050 Fairbanks, Alaska 99708				P.O. NUMBER:				Organic & Inorganic Analytes 10 7 5 0 3 2 1 <1											
PHONE: (907) 374-3225 FAX: (907) 374-3219				PRESERVATIVE				Petroleum Hydrocarbon Analytes X 4 3 3 1 <1											
PROJECT NAME: Kobuk Feed and Fuel				METH N/A METH				OTHER Specify:											
PROJECT NUMBER:				REQUESTED ANALYSES				* Turnaround Request less than standard may incur Rush Charges.											
SAMPLED BY: Lyle Græshover				GRO AK 101 DRO AK 102 BTEX EPA 8021B				MATRIX (W, S, O) # OF CONT. LOCATION / COMMENTS TA WO ID											
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		GRO AK 101		DRO AK 102		BTEX		EPA 8021B		MATRIX (W, S, O)		# OF CONT.		LOCATION / COMMENTS		TA WO ID	
KFF-1-62007		6/15/2007 0907		X		X		X				S		2				01	
KFF-2-62007		6/15/2007 0920		X		X		X				S		2				02	
KFF-3-62007		6/15/2007 0934		X		X		X				S		2				03	
KFF-4-62007		6/15/2007 0947		X		X		X				S		2				04	
KFF-5-62007		6/15/2007 1000		X		X		X				S		2				05	
KFF-6-62007		6/15/2007 1012		X		X		X				S		2				06	
KFF-7-62007		6/15/2007 1025		X		X		X				S		2				07	
KFF-8-62007		6/15/2007 1037		X		X		X				S		2				08	
KFF-9-62007		6/15/2007 1052		X		X		X				S		2				09	
KFF-10-62007		6/15/2007 1103		X		X		X				S		2				10	
RELEASED BY: <i>[Signature]</i>				DATE: 06/18/07				RECEIVED BY: <i>[Signature]</i>				DATE: 06/19/07							
PRINT NAME: Jason Græshover				FROM: ARES				PRINT NAME: <i>Johanne Drøner</i>				FROM: TA-AL							
RELEASED BY:				DATE:				RECEIVED BY:				DATE:							
PRINT NAME:				FROM:				PRINT NAME:				FROM:							
ADDITIONAL REMARKS:				TIME:				TIME:				TIME:							
Level II Reporting Requested												PAGE 1 of 5							

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

CHAIN OF CUSTODY REPORT

Work Order #: **AQFD 102**

CLIENT: Alaska Resources and Environmental Services				INVOICE TO: Alaska Resources and Environmental Services P.O. Box 83050 Fairbanks, Alaska 99708				TURNAROUND REQUEST In Business Days * Organic & Inorganic Analysis <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analysis <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 OTHER Specify: _____ * Turnaround Request for this period may incur Rush Charges.					
REPORT TO: email: lyle@ak-res.com ADDRESS: Mail: P.O. Box 83050 Fairbanks, Alaska 99708				P.O. NUMBER:									
PHONE: (907) 374-3228 FAX: (907) 374-3210				PRESERVATIVE									
PROJECT NAME: Kobuk Feed and Fuel				METH N/A METH									
PROJECT NUMBER:				REQUESTED ANALYSES									
SAMPLED BY: Lyle Greshover													
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	GRO AK 101	DRO AK 102	BTEX EPA 8021B						MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WD ID
KFF-11-62007	6/15/2007 1117	X	X	X						S	2		11
KFF-12-62007	6/15/2007 1131	X	X	X						S	2		12
KFF-13-62007	6/15/2007 1144	X	X	X						S	2		13
KFF-14-62007	6/15/2007 1157	X	X	X						S	2		14
KFF-15-62007	6/15/2007 1209	X	X	X						S	2		15
KFF-16-62007	6/15/2007 1221	X	X	X						S	2		16
KFF-17-62007	6/15/2007 1234	X	X	X						S	2		17
KFF-18-62007	6/15/2007 1248	X	X	X						S	2		18
KFF-19-62007	6/15/2007 1301	X	X	X						S	2		19
KFF-20-62007	6/15/2007 1314	X	X	X						S	2		20
RELEASED BY: <i>Lyle Greshover</i>	DATE: 06/18/07	PRINT NAME: Jason Greshover	FIRM: ARES	TIME: 1200	RECEIVED BY: <i>Johanna DeL...</i>	DATE: 06/19/07	PRINT NAME: Johanna DeL...	FIRM: TA AK	TIME: 0905				
RELEASED BY:	DATE:	PRINT NAME:	FIRM:	TIME:	RECEIVED BY:	DATE:	PRINT NAME:	FIRM:	TIME:				
ADDITIONAL REMARKS: Level II Reporting Requested										PAGE 2 OF 5			

Notes: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

CHAIN OF CUSTODY REPORT

Work Order #: **ADP0102**

CLIENT: Alaska Resources and Environmental Services			INVOICE TO: Alaska Resources and Environmental Services P.O. Box 83050 Fairbanks, Alaska 99708										TURNAROUND REQUEST in Business Days*							
REPORT TO: email: lyle@ak-ree.com ADDRESS: Mail: P.O. Box 83050 Fairbanks, Alaska 99708			P.O. NUMBER:										Organic & Inorganic Analysis 10 7 5 4 3 2 1 <1 Petroleum Hydrocarbon Analysis X 4 3 2 1 <1							
PHONE: (907) 374-3226 FAX: (907) 374-3219													<input type="checkbox"/> OTHER Specify: * Turnaround Request less than standard may incur Rush Charges.							
PROJECT NAME: Kobuk Feed and Fuel			PRESERVATIVE																	
PROJECT NUMBER:			REQUESTED ANALYSIS																	
SAMPLED BY: Lyle Greshover																				
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		GRO AK 101	DRO AK 102	BTEX EPA 8021B											MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
KFF-21-62007		6/15/2007 1326		X	X	X											S	2		21
KFF-22-62007		6/15/2007 1339		X	X	X											S	2		22
KFF-23-62007		6/15/2007 1352		X	X	X											S	2		23
KFF-24-62007		6/15/2007 1404		X	X	X											S	2		24
KFF-25-62007		6/15/2007 1413		X	X	X											S	2		25
KFF-26-62007		6/15/2007 1422		X	X	X											S	2		26
KFF-27-62007		6/15/2007 1435		X	X	X											S	2		27
KFF-28-62007		6/15/2007 1448		X	X	X											S	2		28
KFF-29-62007		6/15/2007 1500		X	X	X											S	2		29
KFF-30-62007		6/15/2007 1513		X	X	X											S	2		30
RELEASED BY: <i>Lyle Greshover</i>			FROM: ARES			DATE: 06/18/07			RECEIVED BY: <i>Johanna Decker</i>			DATE: 06/19/07								
PRINT NAME: Jason Greshover						TIME: 1200			PRINT NAME: Johanna Decker			TIME: 0905								
RELEASED BY:			FROM:			DATE:			RECEIVED BY:			DATE:								
PRINT NAME:						TIME:			PRINT NAME:			TIME:								
ADDITIONAL REMARKS: Level II Reporting Requested																		PAGE 3 OF 5		

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

CHAIN OF CUSTODY REPORT

Work Order #: **AQFD102**

CLIENT: Alaska Resources and Environmental Services				INVOICE TO: Alaska Resources and Environmental Services P.O. Box 83050 Fairbanks, Alaska 99708				TURNAROUND REQUEST In Business Days * Organic & Inorganic Analysis <input checked="" type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analysis <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> <1 OTHER Specify: * Turnaround Request less than standard may incur Rush Charges.			
REPORT TO: email: lyle@ak-res.com ADDRESS: Mail: P.O. Box 83050 Fairbanks, Alaska 99708				P.O. NUMBER:							
PHONE: (907) 374-3228 FAX: (907) 374-3219				PROJECT NAME: Kobuk Feed and Fuel				PRESERVATIVE			
PROJECT NUMBER:				METH N/A METH N/A				REQUESTED ANALYSES			
SAMPLED BY: Lyle Gresehover				GRO AK 101 DRO AK 102 BTEX EPA 8021B EPA 6020				MATRIX (W, S, O) # OF CONT. LOCATION / COMMENTS TA WO ID			
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME									
KFF-SS6-62007		6/16/2007 1118		X X X				S 2		41	
KFF-SS7-62007		6/16/2007 1130		X X X				S 2		42	
KFF-SS8-62007		6/16/2007 1144		X X X				S 2		43	
KFF-SS9-62007		6/16/2007 1158		X X X				S 2		44	
KFF-SS10-62007		6/16/2007 1211		X X X				S 2		45	
KFF-BS1-62007		6/16/2007 1231				X		S 1		46	
RELEASED BY: <i>Jason Gresehover</i> PRINT NAME: Jason Gresehover FIRM: ARES DATE: 06/18/07 TIME: 1200				RECEIVED BY: <i>Johanna Drake</i> PRINT NAME: Johanna Drake FIRM: TA-A6 DATE: 06/19/07 TIME: 0905							
ADDITIONAL REMARKS: Level II Reporting Requested				PAGE 5 OF 5							

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

1.8 / 4.1

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # AQF0102 CLIENT: ARES PROJECT: Kobuk Feed & Fuel

Date/Time Cooler Arrived 06/19/07 09:05 Cooler signed for by: Rachel James
(Print name)

Preliminary Examination Phase:

Date cooler opened: same as date received or / /
Cooler opened by (print) Johanna Dreher (sign) Johanna Dreher

1. Delivered by ALASKA AIRLINES Fed-Ex UPS NAC LYNDEN CLIENT Other:

Shipment Tracking # if applicable PRD 4161224 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by Jason Greschover Date 06/18/07

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: Soft

Temperature by Digi-Thermo Probe 1.8 °C Thermometer # rec # 4

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. Is there adequate volume for the tests requested? Yes No

14. Were VOA vials free of bubbles? N/A Yes No

If "NO" which containers contained "head space" or bubbles?

Log-in Phase:

Date of sample log-in 06/19/07
Samples logged in by (print) Johanna Dreher (sign) Johanna Dreher

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

AQFD 2

CUSTODY SEAL

Date 8/18/2007

Signature [Handwritten Signature]

Test America
ANALYTICAL TESTING CORPORATION

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ADFO102 CLIENT: ARES PROJECT: Kobuk Feed & Fuel

Date /Time Cooler Arrived 06 / 19 / 07 09:05 Cooler signed for by: Rachel James
(Print name)

Preliminary Examination Phase:

Date cooler opened: same as date received or / /

Cooler opened by (print) Johanne Dreher (sign) Johanne Dreher

1. Delivered by ALASKA AIRLINES Fed-Ex UPS NAC LYNDEN CLIENT Other:

Shipment Tracking # if applicable PRD 4161224 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by Jason Greshove Date 6/18/07

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: Solid

Temperature by Digi-Thermo Probe 4.1 °C Thermometer # rec #4

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. Is there adequate volume for the tests requested? Yes No

14. Were VOA vials free of bubbles? N/A Yes No

If "NO" which containers contained "head space" or bubbles?

Log-in Phase:

Date of sample log-in 06 / 19 / 07

Samples logged in by (print) Johanne Dreher (sign) Johanne Dreher

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

AQF 0102

CUSTODY SEAL

Date 6/18/2007

Signature *James J. [unclear]*

Test America
ANALYTICAL TESTING CORPORATION

Appendix D

STATEMENT OF QUALIFICATIONS

Lyle Gresehover

Education Bachelor of Science – Geology
University of Alaska Fairbanks

Certifications OSHA 40-Hour HAZWOPER training
OSHA 8-Hour HAZWOPER refresher course
EPA/AHERA 40-Hour Asbestos Abatement Contractors & Supervisors
OSHA On-Site Manager/Supervisor training
Confined Space Training
Alaska Department of Environmental Conservation Certified Sanitary
Survey Inspector/Public water systems
USACE Wetlands Delineation certification
Alaska Department of Environmental Conservation Qualified Person
AK Class A Commercial Drivers License with Hazardous Materials
endorsement

Employment 1982 – Present
Wray Petroleum Company – Exploration Geologist
University of Alaska Fairbanks – Project manager/Superintendent
Alaska Department of Environmental Conservation – Environmental
Specialist III
ENSR Environmental and Engineering – Environmental Geologist
Lifewater Engineering – Environmental Geologist/Project Manager
Boreal Environmental Services and Technology – Project Manager
Alaska Resources and Environmental Services – Owner/Consultant

Technical Specialties

Project Management
Environmental Compliance

Air, water, and solid waste permitting
Multimedia sampling (Air, Groundwater, Surface Water, Soil)
NEPA Environmental Impact Studies and Documentation
Environmental Baseline Surveys
Wetlands delineations and permitting
Pollution prevention
Phase I and II Environmental Site Assessments
Sampling and Analysis Plans
Field Screening/Contaminated Sites
Site Characterizations and Release Investigations
Groundwater and natural attenuation studies
Groundwater monitoring well development
Risk Assessment
Soil Logging/Sieve Analysis
Hazardous waste identification and compliance