

**TANANA TANK SITE  
CORRECTIVE ACTIONS  
TANANA, ALASKA  
BLM DELIVERY ORDER NAD04SN01**

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**DRAFT TANANA TANK SITE  
CORRECTIVE ACTIONS  
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BLM DELIVERY ORDER NAD04SN01**

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**TANANA TANK SITE CORRECTIVE ACTIONS**  
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This report documents the corrective actions taken at the Tanana Tank Site in 2005 and 2006 to address residual contaminated soil and an abandoned fuel pipeline on the site. The 2005 work consisted of excavating and stockpiling fuel-contaminated soils and removing the on-site portions of the pipeline. The 2006 work consisted of stockpile decommissioning, removal of the remaining off-site portions of the pipeline, and completing other miscellaneous site cleanup activities. This work was conducted in accordance with our Sampling and Analysis Plan (SAP), and under Bureau of Land Management (BLM) term contract NAC040272, Delivery Order NAD04SN01.

**1.0 BACKGROUND**

The Tanana Tank Site is in Tanana, Alaska, along the north bank of the Yukon River (Figure 1). The site has been the subject of various assessment and cleanup efforts since the early 1990s. During a site visit in 1991 by the Bureau of Land Management (BLM) staff, several fuel tanks, shacks, burned buildings, a trailer van, and miscellaneous debris were observed. According to the BLM statement of work for the current removal action, the tank cars and most of the solid waste had been removed from the lot at some point in the 1990s.

The BLM provided several documents describing previous site assessment and cleanup efforts at the site: *Preliminary Staff Report* (BLM, July 1995), *Site Assessment and Release Investigation* (Environmental Systems, Inc.; ESI, April 1998), and *Tanana Tank Site Soil Removal Report* (Wilder, 2004).

The *Preliminary Staff Report* described various fuel storage containers and other solid wastes throughout the southern portion of the site. The fuel storage containers included three rail tank cars, a 900-gallon gasoline delivery truck tank, two 300-gallon to 500-gallon above ground tanks, and approximately fifteen 55-gallon drums and twenty 5-gallon drums spread randomly throughout the site. It is presumed that these tanks were empty or contained residual amounts of product at the time of the site visit. Other solid waste included portions of an airplane, radio

bodies, and discarded batteries. The tanks and other debris documented in the staff report were apparently removed during a site cleanup at some point between July 1995 and September 1997.

The Site Assessment and Release Investigation were conducted by ESI under contract to BLM in 1997. A grid-based field screening and sampling scheme was developed that resulted in the identification of several areas of petroleum-contaminated soil around the southern portion of the property.

In 2003, Wilder conducted a removal action, under contract to BLM, to excavate, transport off site, and treat/dispose the contaminated soil identified by the 1997 investigation. Approximately 125 cubic yards of petroleum-contaminated soil were excavated from six different areas and removed for off-site treatment. Confirmation samples collected from the limits of excavation in these areas showed diesel-range organics (DRO) exceeding its cleanup level in four of the 20 samples collected. These four samples were collected from three excavation areas (Area 4, Area 5, and Area 6; Figure 2). The corrective actions described in this report were initiated to address the areas of contamination identified by those four confirmation samples.

## **2.0 SCOPE OF WORK**

### **2.1 Sampling and Analysis Plan**

Shannon & Wilson prepared a Sampling and Analysis Plan (SAP) in June 2005 that described the methods and procedures to be used in performing the removal action at the Tanana Tank Site. The scope of work defined in the SAP consisted of the following activities:

- excavating soil in the area of the 2003 corrective action areas;
- draining and removal of the old fuel pipeline;
- excavating contaminated soils encountered during pipeline removal; and
- packaging, transporting, and treating or disposing contaminated soil, residual fuel, and pipeline scrap.

Following the initial field excavation activities, the scope of work was modified to more closely reflect the corrective action needs. A pre-project estimate was that up to 200 cubic yards of contaminated soil would require off-site transportation, treatment, and disposal. In fact, approximately only 20 cubic yards of potentially contaminated soil (based on field screening) were excavated and stockpiled on the site, pending laboratory results. Based on the results of

soil samples collected from the limits of excavation and stockpile, it was determined that concentrations of contaminants in soil did not exceed cleanup levels; therefore, soil treatment was not required. The pipeline, which was empty of product, was dismantled and disposed of at the Tanana city landfill. The field season ended before arrangements could be made to decommission the soil stockpile and address other potential issues not included in the original scope of work.

The 2006 work consisted of stockpile decommissioning, removal of the remaining off-site portions of the pipeline, and other miscellaneous site cleanup activities.

## 2.2 Analytical Testing

Each soil sample collected for this project was analyzed for the following petroleum constituents:

- Gasoline-range organics (GRO) by Alaska Method AK101
- DRO by Alaska Method AK102
- Residual-range organics (RRO) by Alaska Method AK103, and
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8021.

In addition, at the request of the Alaska Department of Environmental Conservation (ADEC), one sample from each excavation and the stockpile was analyzed for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270 SIM.

## 2.3 Regulations and Standards

Sites impacted with hydrocarbons associated with petroleum releases are regulated primarily by the ADEC. Default cleanup standards are listed in Alaska Administrative Code (AAC) 18 AAC 75, *Oil and Other Hazardous Substances Pollution Control* regulations. The assumed project soil cleanup standards are the most stringent default Method 2 cleanup levels for the “Under 40 Inches” precipitation zone, Tables B1 and B2, 18 AAC 75.341.

The following table lists the Method 2 cleanup levels for the contaminants of concern for the Tanana Tank Site.

**TANANA TANK SITE CONTAMINANTS OF CONCERN**

<b>Analyte:</b>	<b>GRO</b>	<b>DRO</b>	<b>RRO</b>	<b>Benzene</b>	<b>Toluene</b>	<b>Ethylbenzene</b>	<b>Xylenes</b>
<b>Cleanup Level:</b>	300 mg/kg	250 mg/kg	10,000 mg/kg	0.02 mg/kg	5.4 mg/kg	5.5 mg/kg	78 mg/kg

These cleanup levels represent the migration to groundwater pathway exposure scenario, with the exception of RRO, which represents the ingestion exposure pathway.

**3.0 2005 FIELD ACTIVITIES**

Shannon & Wilson conducted the soil excavation and pipeline removal activities between July 18 and 21, 2005. We contracted with EnzymeTech to mobilize a backhoe and operator to the site to perform the field work. A representative from BLM, Shane Walker, was present during the site work. Using survey benchmarks and field notes from the 2003 removal action, we identified the areas to be reexcavated. The abandoned pipeline was found in a shallow (6-inch) open trench along the west side of the site, partially obscured by vegetation (Photo 1, Appendix A). Removal of this portion of the pipe did not require soil excavation.

**3.1 Soil Excavation Areas**

Three areas of potentially contaminated soil were reexcavated: Area 4, Area 5, and Area 6 (as designated during the 2003 removal action, and shown on Figure 2). Soils were field screened using a photoionization detector (PID) to guide the excavation activities. This field screening was used as a semiquantitative indication of contamination to aid in the identification and delineation of impacted areas, and to select locations for analytical soil sampling.

The field screening action level was 20 parts per million (ppm). Soil with field screening results below the action level was considered potentially clean, and soil exceeding the action level was considered contaminated and was stockpiled for possible treatment or disposal.

Headspace screening was accomplished by placing soil in a resealable plastic bag to approximately one-half of its capacity. The samples were then warmed for at least 10 minutes but not more than one hour. To screen the samples, they were agitated for about 15 seconds, the seal of the bag was opened slightly, the instrument probe was inserted into the air space above



the soil, the bag was held closed around the probe, and the maximum ionization response was recorded.

Excavation and field screening did not encounter contaminated soil around Area 4. Exploratory test pits were excavated around an area approximately 15 feet square to a depth of 3 feet, which encompassed the area from which the 2003 confirmation sample was collected. Approximately 11 cubic yards of soil were excavated. Five field-screening samples were collected as the excavation progressed, with PID measurements ranging from less than one ppm to 2.2 ppm. Based on the low PID response, soil from this area was spread on the ground surface adjacent to the excavation. Three confirmation samples were collected from this area. Detectable concentrations of DRO and RRO were reported in two of these samples, although none exceeded their respective cleanup levels. Table 1 presents the results of analyses for the samples collected during the 2005 field activities.

Sixteen field-screening samples were collected from the excavation at Area 5, with PID measurements ranging from less than 1 ppm to 415 ppm, which exceeded the action level of 20 ppm. Exploratory test pits were excavated around an area approximately 15 feet by 20 feet to a depth of 2 feet. Approximately 20 cubic yards of soil were removed from this area and placed in a temporary stockpile. Three confirmation samples and one field duplicate sample were collected from Area 5. Detectable concentrations of RRO were reported in two of these samples, though well below its cleanup level.

Area 6 was located near the northern end of the abandoned pipeline. An exploratory test pit at this location was excavated around an area approximately 10 feet by 4 feet to a depth of 2 feet. Approximately 3 cubic yards of soil were removed. Field screening results of soil excavated at this location were less than 1 ppm. Based on the low PID response, soil from this area was spread on the ground surface adjacent to the excavation. Two confirmation samples were collected from this area. Detectable concentrations of DRO were reported in one sample, and RRO was detected in both samples, at concentrations below their respective cleanup levels. Photo 2 shows Areas 5 and 6.

The test pit excavations at each area were left open pending the confirmation soil sample analyses; however, the sides were sloped and graded as a safety precaution.

### 3.2 Abandoned Pipeline Removal

The abandoned pipeline extended from Area 6 (Figure 2) southward beneath the road south of the property. It apparently terminated at some point beneath the roadway, but it could not be located extending south of the roadway. Field screening samples were collected at 10-foot intervals along the length of the abandoned pipeline. The approximately 180-foot pipeline was constructed of 20-foot sections of 2-inch-diameter steel pipe, attached with threaded couplings. Field screening samples were collected beneath each fitting and at the midpoint of each section, at a depth of approximately 2 to 4 inches. Field screening samples were generally less than 1 ppm for the on-site portion of the pipeline. Contamination was observed, with a field screening measurement of 1,200 ppm, beneath a buried fitting along the north side of the road. Because this was an off-site location, and excavating the roadway was beyond the scope of work, this soil was left in place.

Three confirmation samples and one field duplicate were collected from the pipeline alignment. Detectable concentrations of GRO, DRO, RRO, and xylenes were reported in the two samples collected beneath the on-site portion of the pipeline at concentrations below their respective cleanup levels. The sample and field duplicate collected beneath the off-site portion of the pipeline contained GRO, DRO, benzene, and toluene at concentrations exceeding their respective cleanup levels. Detectable concentrations of ethylbenzene, xylenes, and the PAH pyrene were also reported in those samples at concentrations below their respective cleanup levels.

### 3.3 Stockpile

Contaminated soil excavated from Area 5 was placed on a visqueen liner. Field screening samples were collected from eleven locations within the stockpile, and two confirmation samples were collected from areas with elevated field screening readings. The stockpile was then covered with liner for temporary storage (Photo 3). Detectable concentrations of DRO and RRO were reported in these samples at concentrations below their respective cleanup levels. These results were forwarded to Mr. Mike Jaynes, an Environmental Program Manager in the ADEC Contaminated Sites Program. Mr. Jaynes provided written approval to dismantle the stockpile and spread the soil on site. A copy of this letter is attached as Appendix B.

#### 4.0 2006 FIELD ACTIVITIES

Outstanding issues that needed to be resolved following the 2005 site work included assessment of stockpile disposal/treatment options, the need for additional corrective action along the pipeline alignment beneath the roadway, and decommissioning of an apparently abandoned well observed by the BLM representative in the southeast portion of the property.

On August 8, 2006, Shannon & Wilson returned to Tanana to complete site work at the Tanana Tanks Site to address these issues.

Shannon & Wilson contracted Brice, Inc., to assist with site work. Representatives from BLM, Mr. Brian Rook and Mr. Lorenzo Harris, were present during the site work.

The reported water well could not be located on the property. A 1995 BLM site plan showed the foundation and description of a sump of a burned-out building. The concrete pad measured 20 feet by 20 feet; no sump was located in the pad. Two other small foundations were located nearby (Figure 2).

The soil stockpile was decommissioned by spreading the soil around the site, beneficially using the soil to fill the 2005 excavated areas, low spots, and two shallow pits on the site (Figure 2).

The fuel line was removed by pulling it out from the north side of the road (Photo 4). The fuel line was buried less than 8 inches under the roadbed. The fuel line on the riverside of the road was fitted with a cam lock, which appeared to be tight. This end of the fuel line also had a shut-off valve and one threaded coupling. The total length of the removed pipe was 32.5 feet with a center-couple 21 feet from the north (cut) end.

A partially timber-lined sump, possibly a privy, approximately 2 feet by 3 feet and 4 feet deep was southwest of the main building pad. Broken visqueen was about 8 inches below the ground surface. A second excavation 3 feet by 3 feet and four feet deep was located under timber framing adjacent to the road. Soil from the stockpile was used to fill these holes.

An approximately 1-cubic-yard soil stockpile had been placed on the 20-foot by 20-foot concrete pad. This soil had a slight diesel odor and was subsequently spread out with a shovel on top of the pad to allow it volatilize (Photo 5). A soil sample was collected for field screening upon return to Fairbanks. The PID measurements on this soil sample was 34 ppm.

On August 9<sup>th</sup>, final grading of the stockpile was completed and approved by Mr. Rook. The liner materials (bottom and top cover) were collected and disposed with the waste from a separate BLM demolition project. An abandoned car and pipe were disposed at the city landfill. We had planned to drag timbers across the site access road, but the timbers had been removed from the site by others. Photo 6 shows the site after removal of the car. Photo 7 shows the stockpile area after decommissioning.

## **5.0 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL**

This section provides a quality assurance (QA) and quality control (QC) review of the analytical data collected during the 2005 field effort. QA/QC procedures are used so that sampling, documentation, and laboratory data are effective and do not detract from the quality or reliability of the results. QA/QC procedures included both field and laboratory procedures and were conducted following our sampling and analysis plan. We reviewed the analytical results for laboratory QC samples, and also conducted our own QA assessment for this project. Our QA review procedures allowed us to document the accuracy and precision of the analytical data, as well as check that the analyses were sufficiently sensitive to detect analytes at levels below regulatory standards, where such standards exist, or where data quality objectives (DQO) were not met.

### **5.1 Field Quality Control**

Field methods and procedures were incorporated following the SAP and included using dedicated or single-use equipment to reduce the potential for sample cross-contamination. A new, clean pair of nitrile gloves was used at each monitoring well.

QA procedures, used to validate the analytical results, included the collection of two field duplicates. Field duplicate samples are collected to evaluate the measure of analytical precision (measured in relative percent difference, or RPD). To evaluate the potential for addition of contaminants to samples as a result of storage or transportation procedures, laboratory-prepared trip blanks were retained in the cooler during sampling and shipping procedures. Trip blanks were included with each of the samples.

## 5.2 Laboratory Quality Control

Laboratory QC includes evaluating surrogate recovery, and analyzing method blanks, laboratory control sample (LCS), matrix spikes (MS), and matrix spike duplicates (MSD) for measurements of accuracy and precision. An evaluation of analytical precision can be performed only if the results of analyses of both the original sample and its field or laboratory duplicate are reported above the method reporting limit (MRL). MS and MSD analyses are performed to evaluate the accuracy of the laboratory's analytical process.

## 5.3 Quality Assurance and Precision

Precision is measured as the RPD between the sample and the duplicate results. One factor affecting the measure of precision is the accuracy of analytical measurement. The data quality objective (DQO) for precision is based on the sample matrix and analysis. DQOs in soil samples are  $\pm 50$  percent RPD for volatile and semivolatile organic compounds.

RPDs for one duplicate pair could be calculated for GRO, DRO, and BTEX compounds. The calculated recoveries met the DQO goals.

## 5.4 Evaluation of Method Reporting Limits

The MRL is the lowest analyte concentration that can be routinely measured in the sampled matrix with confidence. The sample matrix, instrument performance, sample dilutions, and other factors may affect the MRL. Analytes may be present in the samples at concentrations less than the reporting limits; these values are presented in our data summary tables with reference to their MRLs (e.g.,  $< 130 \mu\text{g/L}$ , where the MRL equals  $130 \mu\text{g/L}$ ).

The MRLs were sufficiently low to determine if reported contaminant concentrations exceeded their respective cleanup levels.

## 5.5 Accuracy

Accuracy refers to determining the correct analyte concentration; it is a comparison between the measured value and a known or expected value. Accuracy may be expressed as percent recovery of an analyte and is assessed by comparing the surrogate recovery for specific analytes in each sample run, and for laboratory batch samples for the specific test method. QC batch samples

included LCS and Laboratory Control Sample Duplicate (LCSD), MS and MSD, and method blanks. MS and MSD limits are established for the analytical method.

Batch QC reports were included with the analytical results. QC summaries report on LCS, and MS/MSDs. Control samples were spiked with a known standard concentration, the samples were run, and the percent recovery was determined. RPDs were calculated for control sample duplicates.

Poor surrogate recoveries were reported for one MS/MSD pair due to a high sample moisture content. The recoveries met their control limits when adjusted for moisture content.

## **5.6 Laboratory Method Blanks**

Method blank samples indicate whether contaminants have been introduced into a sample set in the laboratory during preparation or analysis. Method blank data are compared to the sample results with which the blanks are associated. According to EPA guidelines, if the method blank contains detectable levels of common laboratory contaminants, the corresponding sample results should be considered positive only if the concentrations in the sample are more than 10 times the maximum amount detected in any blank.

One method blank was analyzed for DRO and RRO, four were analyzed for GRO and BTEX compounds, and one was analyzed for PAHs. RRO was detected at a concentration below its MRL but above the method detection limit. GRO was detected in one method blank at a concentration below the MRL but above the method detection limit. These anomalies do not detract from the reliability of the project data.

## **5.7 Trip Blank Analysis**

Trip blanks accompanied each of the samples in the field and during storage and transport to the laboratory. The trip blanks were analyzed for GRO and BTEX compounds by Method AK101/8021B. Trip blanks are used to evaluate the potential for cross-contamination between samples and the potential for introduction of contamination from an outside source. There were no detected compounds in the trip blanks.

### **5.8 Chain of Custody and Cooler Receipts**

Coolers were hand delivered to the laboratory in Fairbanks upon completion of the field work. We reviewed the chain-of-custody records and laboratory receipt forms to confirm that custody was not breached, and that the samples were kept properly chilled (between 2°C and 6°C) during shipping.

### **5.9 Completeness**

Completeness is the measure of the number of valid measurements obtained in relationship to the total number of measurements planned. The objective of completeness is to generate an adequate database to achieve the goals of the investigation. Completeness is calculated for each method and matrix after the QC data have been evaluated. One measure of project completeness evaluates the number of planned samples to the number of samples analyzed. The number of rejected and unreported results is subtracted from the total number of expected results and then divided by the total number of expected results. Results may have been rejected due to out-of-control analytical conditions, severe matrix effects, broken or spilled samples, or any other reason why the sample could not be analyzed.

The completeness DQO (80%) was met.

### **5.10 Summary**

By working in general accordance with our SAP, the samples we collected are considered to be representative of site conditions at the locations and times they were obtained. Based on our QA review, no samples were rejected as unusable due to quality control failures, and our completeness goal of obtaining 85 percent useable data was met. In general, the quality of the analytical data for this project does not appear to have been compromised by any analytical irregularities.

## **6.0 DISCUSSION**

The primary objectives of our work at the Tanana Tank Site were to remove and dispose of an abandoned fuel pipeline and excavate and treat or dispose of petroleum-contaminated soil to achieve a clean closure. Field screening of soils from excavations around Area 4 and Area 6 showed that contaminant concentrations did not exceed levels of concern. Confirmation soil

samples collected at the limits of these excavations did not contain contaminants at concentrations exceeding their cleanup levels. Soil excavated from these locations did not require stockpiling and were spread on the ground surface adjacent to the excavations. The excavations were left open pending results of confirmation sample analyses.

Field screening at the Area 5 excavation indicated some of the soils were present above the target action level, and approximately 20 cubic yards of soil from this location were placed in a stockpile. Confirmation soil samples collected from the limits of excavation did not contain contaminants at concentrations exceeding their cleanup levels.

We collected field-screening samples from several locations within the contaminated soil stockpile, and collected analytical soil samples from two of the locations with elevated PID readings. Laboratory results of these samples showed that contaminant concentrations did not exceed cleanup levels, and the stockpile did not require additional treatment or disposal. The stockpile was subsequently decommissioned.

The abandoned pipeline was dismantled and disposed at the city landfill. Confirmation soil samples collected from beneath the on-site portions of the pipeline alignment did not contain contaminants at concentrations exceeding their respective cleanup levels. Petroleum contaminated soil was identified at one off-site location at the north edge of the frontage road.

While not part of the scope of work, an abandoned vehicle that was present on the site was removed and disposed at the city landfill.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

Based on the work conducted by Shannon & Wilson at the Tanana Tank Site in 2005 and 2006, we offer the following conclusions:

- The objective of excavating petroleum-contaminated soil from the site was achieved. The volume of contaminated soil encountered during excavation was much lower than anticipated, and stockpile sampling indicated that further treatment or disposal was not necessary.
- The abandoned fuel pipeline was removed from the site and properly disposed at the city landfill. No portion of this pipeline is known to remain at the site.



- Soil sampling beneath the on-site portions of the pipeline indicated that no contamination was present above established soil cleanup levels.
- Petroleum contamination is present at one off-site location along the pipeline alignment, where GRO, DRO, benzene, and ethylbenzene were detected at concentrations exceeding their respective cleanup levels.
- Access to the site is currently unrestricted. For this reason, there remains the potential for unauthorized dumping to occur on the site.

Based on these conclusions, it is our opinion that the primary project objectives were met. As such, the known environmental concerns of petroleum contamination resulting from past fuel storage and handling practices have been addressed. It is our opinion that further corrective actions are not warranted at this time.

## 8.0 LIMITATIONS

This report was prepared for the exclusive use of the BLM and their representatives in the corrective action site activities conducted at the Tanana Tank Site property in Tanana, Alaska. The findings we have presented are based on our limited research performed in accordance with our agreed-upon scope of services and budget; they should not be construed as a definite conclusion about the environmental characteristics of the site. No matter how thorough an environmental assessment may be, findings derived from its conduct are limited, and we cannot know or state for an absolute fact that a site has been unaffected by reportable quantities of regulated contaminants.

We performed this corrective action according to general practice at the time and place where the project was conducted. We cannot attest to the authenticity or reliability of any third party information collected and reviewed. The data presented in this report should be considered representative of the time of our site observations. Changes due to natural forces or human activity can occur on the site. In addition, changes in government codes, regulations, or laws may occur. Because of such changes beyond our control, our observations and interpretations may need to be revised.

Interpretations and recommendations made by Shannon & Wilson are based solely upon information available to Shannon & Wilson at the time the interpretations and recommendations are made.

All documents prepared by Shannon & Wilson are instruments of service with respect to the project for the sole use of our Client. Only our Client shall have the right to rely upon such documents. Such documents are not intended or represented to be suitable for reuse by our Client, or others, after the passage of time, on extensions of the project, or on any other project. Any such reuse without written verification or adaptation by Shannon & Wilson, as appropriate for the specific purpose intended, shall be at the user's sole risk.

Copies of documents that may be relied upon by our Client are limited to the printed copies (also known as hard copies) that are signed or sealed by Shannon & Wilson. Text, data, or graphics files in electronic media format are furnished solely for the convenience of our Client. Any conclusion or information obtained or derived from such electronic files shall be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

When transferring documents in electronic media format, Shannon & Wilson does not make any representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used for the document's creation.

**TABLE 1**  
Summary of Analytical Results for  
DRO, RRO, and BTEX  
Tanana Tank Site

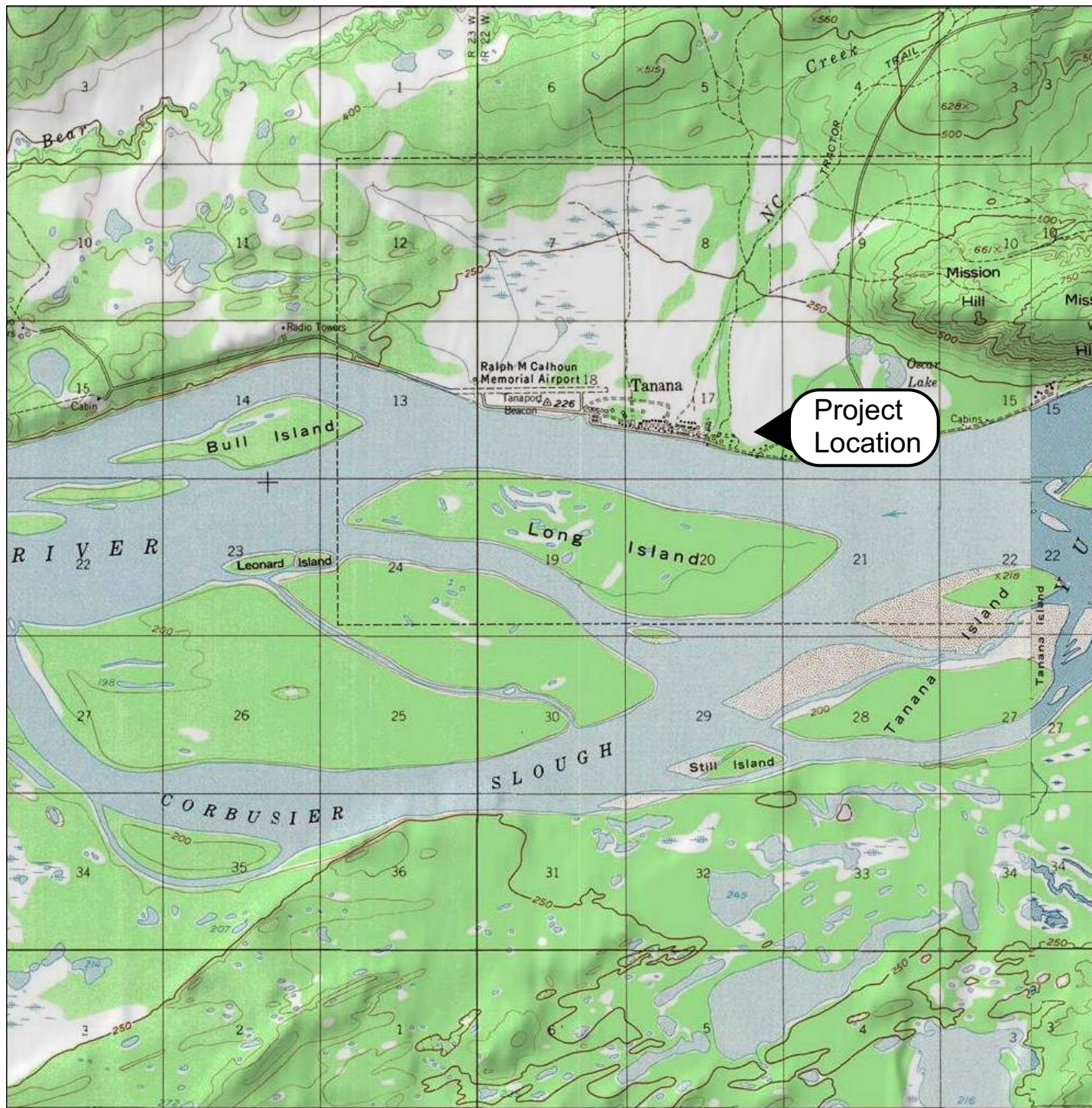
Sample Number	Depth (feet)	Location	GRO (AK101) (mg/kg)	DRO (AK102) (mg/kg)	RRO (AK103) (mg/kg)	Aromatic Organic Compounds (EPA 8021B)					PAH SIM
						Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	p & m- Xylenes (mg/kg)	o-Xylene (mg/kg)	Pyrene (mg/kg)
ADEC Cleanup Level			300	250	10,000	0.02	5.4	5.5	69 (total xylenes)		1,500
1251-RE5-01	2.5	Excavation Area 5	<3.860	<23.0	52.2	<0.0193	<0.0773	<0.0773	<0.0773	<0.0773	-
1251-RE5-02	2.5	Excavation Area 5	<3.580	<22.8	31.2	<0.0179	<0.0715	<0.0715	<0.0715	<0.0715	-
1251-RE5-03	2.5	Excavation Area 5	<3.820	<23.6	<23.6	<0.0191	<0.0764	<0.0764	<0.0764	<0.0764	<0.00602
1251-RE5-04	Duplicate of RE5-03		<3.350	<22.9	<22.9	<0.0167	<0.0669	<0.0669	<0.0669	<0.0669	<0.00603
1251-RE4-05	2.5	Excavation Area 4	<3.170	<21.1	24.6	<0.0158	<0.0634	<0.0634	<0.0634	<0.0634	-
1251-RE4-06	2.5	Excavation Area 4	<3.920	108	24.6	<0.0196	<0.0784	<0.0784	<0.0784	<0.0784	-
1251-RE4-07	2.5	Excavation Area 4	<2.900	100	35.5	<0.0145	<0.0580	<0.0580	<0.0580	<0.0580	<0.00585
1251-RE6-08	2.0	Excavation Area 6	<3.220	29.9	339	<0.0161	<0.0644	<0.0644	<0.0644	<0.0644	<0.00597
1251-RE6-09	2.0	Excavation Area 6	<2.570	<22.0	85.8	<0.0129	<0.0514	<0.0514	<0.0514	<0.0514	-
1251-PL-10	0.5	Fuel Pipeline	4.630	219	24.5	<0.0133	<0.0531	<0.0531	0.110	<0.0531	-
1251-PL-11	0.5	Fuel Pipeline	<2.540	228	27.9	<0.0127	<0.0509	<0.0509	0.0683	<0.0509	-
1251-PL-12	2.5	Fuel Pipeline at road	302.000	8,160	<533	0.168	6.080	2.920	16.200	8.750	0.131
1251-PL-13	Duplicate of PL-12		197.000	8,190	<563	0.200	5.410	2.180	11.700	6.490	-
1251-SP-14	1.5	Stockpile	<3.710	242	48.1	<0.0185	<0.0742	<0.0742	<0.0742	<0.0742	-
1251-SP-15	1.5	Stockpile	<3.550	99.0	58.5	<0.0178	<0.0710	<0.0710	<0.0710	<0.0710	<0.00542

## Notes:

ADEC cleanup levels - 18 AAC 75 Tables B1 and B2, and Technical Memorandum 01-007

&lt; indicates the analyte was not detected at the listed practical quantitation limit.

Results exceeding cleanup levels are shown in bold type.



Base Map: USGS Tanana (A-5), Alaska



Scale 1 inch = 1 mile

U.S. Bureau of Land Management  
Tanana Tank Site  
Tanana, Alaska

### SITE LOCATION

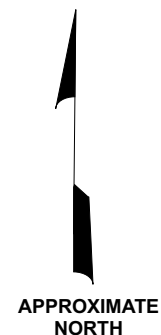
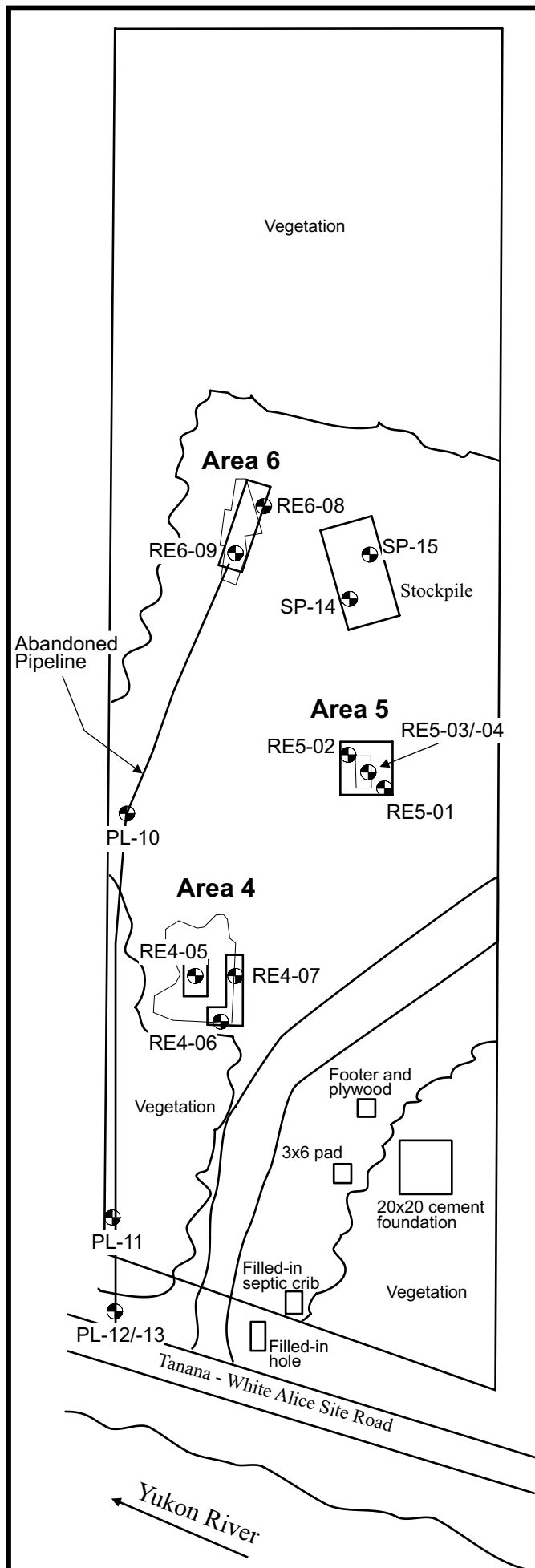
October 2006

31-1-11251-002



**SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 1



#### LEGEND:

● — Soil sample designation and approximate location  
RE5-01

RE = Sample from re-excavation of 2003 soil removal areas 4 (RE4), 5 (RE5), and 6 (RE6).

PL = Pipeline area sample.

SP = Stockpile sample.

NOT TO SCALE

U.S. Bureau of Land Management  
Tanana Tank Site  
Tanana, Alaska

#### SITE PLAN

October 2006

31-1-11251-002

 **SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 2

## **APPENDIX A**

### ***Project Photos***



Appendix A  
Project Photographs



Photo 1. Abandoned fuel pipeline, partially obscured by vegetation.



Photo 2. View to southeast. Excavation Area 6 (foreground) and Area 5 (center left). Fuel line located along right side of photo.





Photo 3. View to southeast of covered soil stockpile.



Photo 4. View to north. Removal of the off-site portion of the pipeline extending beneath the adjacent roadway.





Photo 5. View to northeast of 20-ft by 20-ft foundation, with soil spread out by shovel.



Photo 6. View to north of site following removal of abandoned vehicle.



Photo 7. View to northwest of stockpile area following decommissioning.

## **APPENDIX B**

### ***ADEC Stockpile Decommission Approval Letter***

# STATE OF ALASKA

## **DEPT. OF ENVIRONMENTAL CONSERVATION DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM**

**FRANK MURKOWSKI, GOVERNOR**

610 University Avenue  
Fairbanks, AK 99709-3643  
PHONE: (907) 451-2117  
FAX: (907) 451-5105  
[www.dec.state.ak.us](http://www.dec.state.ak.us)

File: 780.38.010

June 1, 2006

Chris Darrah, C.P.G.  
Principal Geologist  
Shannon & Wilson, Inc.  
2355 Hill Road  
Fairbanks, AK 99709


Re: BLM Tanana Lot 3 Former Tank Farm  
Stockpile Decommissioning Approval

Mr. Darrah:

The Department has reviewed the email detailing stockpile concentrations for the Bureau of Land Management (BLM) Tanana Tanks Site. Review shows soils to meet the most stringent Migration to Groundwater Method Two cleanup levels. You may dismantle the stockpile and spread this soil onsite, but take care not to cause sheen or place soil in what appears to be an environmentally sensitive area. If you have any questions, please call me at (907) 451-2117, or email me at [Mike\\_Jaynes@dec.state.ak.us](mailto:Mike_Jaynes@dec.state.ak.us).

Once this work is complete and the final report ready, we should set up a meeting to get an update on actions at this site.

Sincerely,



Michael Jaynes  
Environmental Program Manager

## **APPENDIX C**

### ***SGS Laboratory Data Reports***

**SGS Environmental Services Inc.**  
**Alaska Division**  
**Level 2 Laboratory Data Report**

Project: 31-1-11251 Tanana Tank Site  
Client: Shannon & Wilson-Fairbanks  
SGS Work Order: 1054194

Released by: (Signature) Stephen C. Ede  
(Printed Name) Stephen C. Ede  
(Title) Technical Director  
(Date) 8/9/05

**Contents:**

Case Narrative  
Chain of Custody/Sample Rec Form  
Final Report Page  
Quality Control Summary Forms

**Note:**

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.

This report contains a total number of 59 pages.

## Case Narrative

**Customer: SHANFBK**                      **Shannon & Wilson-Fairbanks**  
**Project: 1054194**                      **31-1-11251 Tanana Tank Site**

- 1054194001 PS**                      **1251-RE5-01**  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194002 PS**                      **1251-RE5-02**  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194005 PS**                      **1251-RE4-05**  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194006 PS**                      **1251-RE4-06**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194007 PS**                      **1251-RE4-07**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194008 PS**                      **1251-RE6-08**  
DRO/RRO - Unknown hydrocarbon with several peaks is present.
- 1054194009 PS**                      **1251-RE6-09**  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194010 PS**                      **1251-PL-10**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194011 PS**                      **1251-PL-11**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194012 PS**                      **1251-PL-12**  
DRO - The pattern is consistent with a weathered middle distillate.  
GRO/BTEX - BFB surrogate recovery is biased high due to matrix interference.
- 1054194013 PS**                      **1251-PL-13**  
DRO - The pattern is consistent with a weathered middle distillate.  
GRO/BTEX - BFB surrogate recovery is biased high due to matrix interference.
- 1054194014 PS**                      **1251-SP-14**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 1054194015 PS**                      **1251-SP-15**  
DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.
- 642477 MS**  
8270C SIM - MS/MSD recoveries for several analytes do not meet QC goals. See LCS for recoveries.
- 645005 MS**  
GRO/BTEX - MS BFB field surrogate recovery is biased low due to a high moisture content in the sample. The recovery adjusted for moisture content is 102%.
- 642478 MSD**  
8270C SIM - MS/MSD recoveries for several analytes do not meet QC goals. See LCS for recoveries.

SGS Environmental Services Inc.

## **Case Narrative**

**Customer: SHANFBK**

**Shannon & Wilson-Fairbanks**

**Project: 1054194**

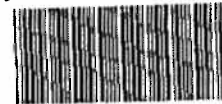
**31-1-11251 Tanana Tank Site**

### **645006 MSD**

GRO/BTEX - MSD BFB field surrogate recovery is biased low due to a high moisture content in the sample. The recovery adjusted for moisture content is 98%.



1054194


**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

 400 N. 34th Street, Suite 100  
 Seattle, WA 98103  
 (206) 632-8020

 2055 Hill Road  
 Fairbanks, AK 99709  
 (907) 479-0600

 2255 S.W. Canyon Road  
 Portland, OR 97201-2498  
 (503) 223-6147

 2043 Westport Center Drive  
 St. Louis, MO 63148-3564  
 (314) 392-0050

 5430 Fairbanks Street, Suite 3  
 Anchorage, AK 99518  
 (907) 561-2120

 1200 17th Street, Suite 1024  
 Denver, Co 80202  
 (303) 825-3800

 303 Wellsian Way  
 Richland, WA 99352  
 (509) 946-6309

# CHAIN-OF-CUSTODY RECORD

 Laboratory SGS Page 1 of 2  
 Attn: Sunny
**Analysis Parameters/Sample Container Description**  
 (include preservative if used)

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	GR0/BTEX	AK01/8021	BR0/PRO	AK102/103	PAH	Sim/8270	Total Number of Containers	Remarks/Matrix
1251-RE5-01	① A-B	1500	7/20/05	✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE5-02	②	1510		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE5-03	③	1515		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE5-04	④	1525		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE4-05	⑤	1550		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE4-06	⑥	1555		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE4-07	⑦	1600		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE6-08	⑧	1610		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-RE6-09	⑨	1615		✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-PL-10	⑩	0855	7/21/05	✓	✓	✓	✓	✓	✓	✓	✓	2	

Project Information		Sample Receipt	
Project Number: <u>31-1-11251</u>	Total Number of Containers	DOC Seals/Intact? Y/N/NA	
Project Name: <u>Tanana Tank, Site</u>	Received Good Cond./Cold	Delivery Method:	
Contact: <u>Chris Darrah</u>	Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	(attach shipping bill, if any)	
Sampler: <u>CBD</u>			

Instructions	
Requested Turnaround Time: <u>Standard</u>	
Special Instructions:	

 Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report  
 Yellow - w/shipment - for consignee files  
 Pink - Shannon & Wilson - Job File

Relinquished By: 1		Relinquished By: 2		Relinquished By: 3	
Signature: <u>[Signature]</u>	Time: <u>10:55</u>	Signature: <u>[Signature]</u>	Time: <u>10:30</u>	Signature: <u>[Signature]</u>	Time: <u>9:50pm</u>
Printed Name: <u>CHRIS TOPHER DARRAH</u>	Date: <u>7/22/05</u>	Printed Name: <u>Sunny Castleberry</u>	Date: <u>7-22-05</u>	Printed Name: <u>Jennie Atkins</u>	Date: <u>7-22-05</u>
Company: <u>SW</u>		Company: <u>SGS</u>		Company: <u>SGS</u>	
Received By: 1		Received By: 2		Received By: 3	
Signature: <u>[Signature]</u>	Time: <u>10:55</u>	Signature: <u>[Signature]</u>	Time: <u>10:30</u>	Signature: <u>[Signature]</u>	Time: <u>08:50</u>
Printed Name: <u>Sunny Castleberry</u>	Date: <u>7-22-05</u>	Printed Name: <u>[Signature]</u>	Date: <u>7-22-05</u>	Printed Name: <u>[Signature]</u>	Date: <u>7-22-05</u>
Company: <u>SGS</u>		Company: <u>SGS</u>		Company: <u>SGS</u>	

1054194



Shannon &amp; Wilson, Inc.

400 N. 34th Street, Suite 100  
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(206) 632-8020

11500 Olive Blvd., Suite 278  
St. Louis, MO 63141  
(314) 872-8170

2055 Hill Road  
Fairbanks, AK 99707  
(907) 479-0600

5430 Fairbanks Street, Suite 3  
Anchorage, AK 99518  
(907) 561-2120

## Chain of Custody Record

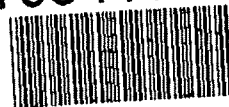
Page 2 of 2  
Laboratory SGS  
Attn: Sunny

Analysis Parameters/Sample Container Description  
(include preservative if used)

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	GRW/BTEX	AK101/8021	DRO/RR0	AK102/1103	PAH	SIM/8270	Total Number of Containers	Remarks/Matrix
1251-PL-11	⑪ A-B	0915	7/21/05	✓	✓	✓	✓	✓	✓	✓	✓	2	
1251-PL-12	⑫	0925		✓	✓	✓	✓	✓	✓	✓	✓	2	H <sub>2</sub> O+
1251-PL-13	⑬	0935		✓	✓	✓	✓	✓	✓	✓	✓	2	H <sub>2</sub> O+
1251-SP-14	⑭	1400		✓	✓	✓	✓	✓	✓	✓	✓	2	H <sub>2</sub> O+
1251-SP-15	⑮	1410		✓	✓	✓	✓	✓	✓	✓	✓	2	H <sub>2</sub> O+
Trip blank	⑯ A											1	

<b>Project Information</b> Project Number: <u>31-1-11251</u> Project Name: <u>Tanana Tank Site</u> Contact: <u>Chris Darrach</u> Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Sampler: <u>CBD</u>		<b>Sample Receipt</b> Total Number of Containers: <u> </u> COC Seals/Intact? Y/N/NA: <u> </u> Received Good Cond./Cold: <u> </u> Delivery Method: <u>Hand Delivered</u> (attach shipping bill, if any)		<b>Relinquished By: 1.</b> Signature: <u>[Signature]</u> Time: <u>1035</u> Printed Name: <u>CHRISTOPHER DARRACH</u> Date: <u>7/22/05</u> Company: <u>SW</u>		<b>Relinquished By: 2.</b> Signature: <u>[Signature]</u> Time: <u>1635</u> Printed Name: <u>Sunny Castleberry</u> Date: <u>7-22-05</u> Company: <u>SGS</u>		<b>Relinquished By: 3.</b> Signature: <u>[Signature]</u> Time: <u>4:50p</u> Printed Name: <u>Jennell Atkins</u> Date: <u>7-22-05</u> Company: <u>SGS</u>	
<b>Instructions</b> Requested Turn Around Time: <u>Standard</u> Special Instructions: <u> </u>		<b>Received By: 1.</b> Signature: <u>[Signature]</u> Time: <u>1035</u> Printed Name: <u>Sunny Castleberry</u> Date: <u>7-22-05</u> Company: <u>SGS</u>		<b>Received By: 2.</b> Signature: <u>[Signature]</u> Time: <u> </u> Printed Name: <u> </u> Date: <u> </u> Company: <u> </u>		<b>Received By: 3.</b> Signature: <u>[Signature]</u> Time: <u>0930</u> Printed Name: <u>Jane Johnson</u> Date: <u>7-23-05</u> Company: <u>SGS</u>			

Distribution: White - w/shipment - returned to Shannon & Wilson w/ Laboratory report  
 Yellow - w/shipment - for consignee files  
 Pink - Shannon & Wilson - Job File



## SAMPLE RECEIPT FORM

SGS WO#:

Yes No NA

- ☐ ☒ ☐ Are samples **RUSH**, priority, or w/n 72 hrs. of hold time?  
☐ ☒ ☐ If yes have you done e-mail notification?  
☐ ☒ ☐ Are samples *within* 24 hrs. of **hold time** or due date?  
☐ ☒ ☐ If yes, have you *spoken with* Supervisor?  
☐ ☒ ☐ Archiving bottles – if req., are they properly marked?  
☒ ☐ ☐ Are there any **problems**? PM Notified? \_\_\_\_\_  
☒ ☐ ☐ Were samples preserved correctly and pH verified? \_\_\_\_\_

- ☐ ☐ ☒ If this is for PWS, provide **PWSID**. \_\_\_\_\_  
☐ ☐ ☒ Will courier charges apply? \_\_\_\_\_  
 Method of payment? \_\_\_\_\_  
☒ ☐ ☐ Data package required? (Level: 1 2 3 / 4 )  
 Notes: \_\_\_\_\_  
☒ ☐ ☐ Is this a DoD project? (USACE, Navy, AFCEE)

Due Date: 8-5-05Received Date: 7-27-05Received Time: 1635

Is date/time conversion necessary? \_\_\_\_\_

# of hours to AK Local Time: \_\_\_\_\_

Thermometer ID: Longstem A

Cooler ID	Temp Blank	Cooler Temp
<u>1</u>	<u>4.1</u> °C	<u>5.6</u> °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C

\*Temperature readings include thermometer correction factors

**Delivery method** (circle all that apply): Client /  
 Alert Courier / UPS / FedEx / USPS /  
 AA Goldstreak / NAC / ERA / PenAir / Carlisle  
 Lynden / SGS / Other: \_\_\_\_\_

Airbill # \_\_\_\_\_

Additional Sample Remarks: (✓ if applicable)

Extra Sample Volume? \_\_\_\_\_

Limited Sample Volume? \_\_\_\_\_

☒ Field preserved for volatiles? \_\_\_\_\_

Field-filtered for dissolved? \_\_\_\_\_

Lab-filtered for dissolved? \_\_\_\_\_

Ref Lab required? \_\_\_\_\_

Foreign Soil? \_\_\_\_\_

***This section must be filled out for DoD projects (USACE, Navy, AFCEE)***

Yes No

Is received temperature  $4 \pm 2^\circ\text{C}$ ?

Exceptions: \_\_\_\_\_

Samples/Analyses Affected: \_\_\_\_\_

Rad Screen performed? \_\_\_\_\_

Result: \_\_\_\_\_

Was there an airbill? (Note # above in the right hand column)

Was cooler sealed with custody seals?

# / where: \_\_\_\_\_

Were seal(s) intact upon arrival?

Was there a COC with cooler?

Was the COC filled out properly?

Did the COC indicate COE / AFCEE / Navy project?

Did the COC and samples correspond?

Were all sample packed to prevent breakage?

Packing material: \_\_\_\_\_

Were all samples unbroken and clearly labeled?

Were all samples sealed in separate plastic bags?

Were all VOCs free of headspace and/or MeOH preserved?

Were correct container / sample sizes submitted?

Is sample condition good?

Was copy of CoC, SRF, and custody seals given to PM to fax?

***This section must be filled if problems are found.***

Yes No

Was client notified of problems? \_\_\_\_\_

Individual contacted: \_\_\_\_\_

Via: Phone / Fax / Email (circle one)

Date/Time: \_\_\_\_\_

Reason for contact: \_\_\_\_\_

Change Order Required? \_\_\_\_\_

SGS Contact: \_\_\_\_\_

Notes: \_\_\_\_\_

Completed by (sign): Sunny Castleberry (print): Sunny Castleberry  
 Login proof (check one): waived \_\_\_\_\_ required ☒ performed by: \_\_\_\_\_



1054194

SGS WO#:



SAMPLE RECEIPT FORM FOR TRANSFERS  
From  
FAIRBANKS, ALASKA OR HONOLULU, HAWAII  
To  
ANCHORAGE, AK

TO BE COMPLETED IN ANCHORAGE UPON ARRIVAL FROM FAIRBANKS OR HAWAII.  
NOTES RECORDED BELOW ARE ACTIONS NEEDED UPON ARRIVAL IN ANCHORAGE.

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_Receipt Date / Time: 7-23-05 0920Is Sample Date/Time Conversion Necessary? Yes \_\_\_\_\_ No ✓

Number of Hours From Alaska Local Time: \_\_\_\_\_

Foreign Soil? Yes \_\_\_\_\_ No ✓

Delivery method to Anchorage (circle all that apply):

Alert Courier / UPS / FedEx / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlile Lynden / SGS

Other: \_\_\_\_\_

Airbill # \_\_\_\_\_

## COOLER AND TEMP BLANK READINGS\*

Cooler ID	Temp Blank (°C)	Cooler (°C)	Cooler ID	Temp Blank (°C)	Cooler (°C)
<u>1</u>	<u>4.0</u>	<u>5.3</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

CUSTODY SEALS INTACT: YES NO# / WHERE: London, LondonCOMPLETED BY: JS

\*Temperature readings include thermometer correction factors.

7

1054194



213 27  
19-84

**SGS**

Environmental

CUSTODY SEAL

IVAS YADISUC

**SGS** Environmental

Signature: Amur

Date/Time: 7-22-05 @ 4:50 PM

**SGS**

Environmental

CUSTODY SEAL

Signature: Amur

Date/Time: 7-22-05 @ 4:50 PM

213 27  
01-84

20516 @ 00-00-2

Date/Time: 7-22-05 @ 4:50 PM

CUSTODY SEAL

**SGS** Environmental

**SGS**

Environmental

CUSTODY SEAL

Signature: Amur

Date/Time: 7-22-05 @ 4:50 PM

213 27  
19-84

**SGS**

Environmental

CUSTODY SEAL

Signature: Amur

Date/Time: 7-22-05 @ 4:50 PM

h614501

200 W. Potter Drive  
Anchorage, AK 99518-1605  
Tel: (907) 562-2343  
Fax: (907) 561-5301  
Web: <http://www.us.sgs.com>

Chris Darrah  
Shannon & Wilson-Fairbanks  
2355 Hill Rd  
Fairbanks, AK 99709

**Work Order:** 1054194  
31-1-11251 Tanana Tank Site  
**Client:** Shannon & Wilson-Fairbanks  
**Report Date:** August 05, 2005

**Released by:**



Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Control Manual that outlines this program is available at your request. The laboratory ADEC certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS Quality Assurance Program Plan and the National Environmental Laboratory Accreditation Conference.

If you have any questions regarding this report or if we can be of any other assistance, please call your SGS Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

PQL	Practical Quantitation Limit (reporting limit).
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the PQL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected.
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
GT	Greater Than
D	The analyte concentration is the result of a dilution.
LT	Less Than
!	Surrogate out of control limits.
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
JL	The analyte was positively identified, but the quantitation is a low estimation.
E	The analyte result is above the calibrated range.

Note: Soil samples are reported on a dry weight basis unless otherwise specified.



SGS Ref.# 1054194001  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-01  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:00  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
-----------	---------	-----	-------	--------	--------------	------------------	-----------	---------------	------

**Volatile Fuels Department**

Gasoline Range Organics	3860 U	3860	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	19.3 U	19.3	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	77.3 U	77.3	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	77.3 U	77.3	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	77.3 U	77.3	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	77.3 U	77.3	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <surr>	96.8		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	74		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	23.0 U	23.0	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	52.2	23.0	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	78.9		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	97		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	86.5		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194002  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-02  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:10  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	3580 U	3580	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	17.9 U	17.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	71.5 U	71.5	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	71.5 U	71.5	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	71.5 U	71.5	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	71.5 U	71.5	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <surr>	95.7		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	67.5		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	22.8 U	22.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	31.2	22.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	68		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	74.8		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	85.6		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194003  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-03  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:15  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	3820 U	3820	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	19.1 U	19.1	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	76.4 U	76.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	76.4 U	76.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	76.4 U	76.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	76.4 U	76.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
<b><u>Surrogates</u></b>									
1,4-Difluorobenzene <surr>	96.8		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	64.6		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM
<b><u>Semivolatile Organic Fuels Department</u></b>									
Diesel Range Organics	23.6 U	23.6	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	23.6 U	23.6	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
<b><u>Surrogates</u></b>									
5a Androstane <surr>	72.5		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	74.8		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Acenaphthylene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
2-Methylnaphthalene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Acenaphthene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Fluorene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Phenanthrene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Anthracene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM



SGS Ref.# 1054194003  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-03  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:15  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Pyrene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo(a)Anthracene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Chrysene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[b]Fluoranthene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[a]pyrene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Indeno[1,2,3-c,d] pyrene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Dibenzo[a,h]anthracene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[g,h,i]perylene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Naphthalene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
1-Methylnaphthalene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[k]fluoranthene	6.02 U	6.02	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	73.7		%	8270C SIMS	B	14-129	07/27/05	07/29/05	SPM
<b><u>Solids</u></b>									
Total Solids	83.0		%	SM20 2540G	B			07/26/05	JC



SGS Ref.# 1054194004  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-04  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:25  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	3350 U	3350	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	16.7 U	16.7	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	66.9 U	66.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	66.9 U	66.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	66.9 U	66.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	66.9 U	66.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
<b><u>Surrogates</u></b>									
1,4-Difluorobenzene <surr>	97		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	62.8		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM
<b><u>Semivolatile Organic Fuels Department</u></b>									
Diesel Range Organics	22.9 U	22.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	22.9 U	22.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
<b><u>Surrogates</u></b>									
5a Androstane <surr>	79.5		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	81.1		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Acenaphthylene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
2-Methylnaphthalene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Acenaphthene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Fluorene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Phenanthrene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Anthracene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM



SGS Ref.# 1054194004  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE5-04  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:25  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Pyrene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo(a)Anthracene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Chrysene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[b]Fluoranthene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[a]pyrene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Indeno[1,2,3-c,d] pyrene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Dibenzo[a,h]anthracene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[g,h,i]perylene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Naphthalene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
I-Methylnaphthalene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[k]fluoranthene	6.03 U	6.03	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	72.5		%	8270C SIMS	B	14-129	07/27/05	07/29/05	SPM
<b><u>Solids</u></b>									
Total Solids	82.7		%	SM20 2540G	B			07/26/05	JC



SGS Ref.# 1054194005  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE4-05  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:50  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	3170 U	3170	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	15.8 U	15.8	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	63.4 U	63.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	63.4 U	63.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	63.4 U	63.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	63.4 U	63.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <surr>	96.2		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	72.2		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	21.1 U	21.1	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	24.6	21.1	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	69.7		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	71.5		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	89.6		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194006  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE4-06  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:55  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.  
RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	3920 U	3920	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	19.6 U	19.6	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	78.4 U	78.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	78.4 U	78.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	78.4 U	78.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	78.4 U	78.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <surrogate>	96.8		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surrogate>	68.2		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	108	22.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	24.6	22.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surrogate>	99.9		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surrogate>	77		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	85.3		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194007  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE4-07  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 16:00  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	2900 U	2900	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	14.5 U	14.5	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	58.0 U	58.0	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	58.0 U	58.0	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	58.0 U	58.0	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	58.0 U	58.0	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <sur>	95.9		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <sur>	70.2		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	100	22.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	35.5	22.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <sur>	94.8		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <sur>	91.7		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Polynuclear Aromatics GC/MS**

Acenaphthylene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
2-Methylnaphthalene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Acenaphthene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Fluorene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Phenanthrene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Anthracene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM





SGS Ref.# 1054194007  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE4-07  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 16:00  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Pyrene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo(a)Anthracene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Chrysene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[b]Fluoranthene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[a]pyrene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Indeno[1,2,3-c,d] pyrene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Dibenzo[a,h]anthracene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[g,h,i]perylene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Naphthalene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
1-Methylnaphthalene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[k]fluoranthene	5.85 U	5.85	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	71.8		%	8270C SIMS	B	14-129	07/27/05	07/29/05	SPM
<b><u>Solids</u></b>									
Total Solids	85.3		%	SM20 2540G	B			07/26/05	JC



SGS Ref.# 1054194008  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE6-08  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 16:10  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO/RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	3220 U	3220	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	16.1 U	16.1	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	64.4 U	64.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	64.4 U	64.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	64.4 U	64.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	64.4 U	64.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
<b><u>Surrogates</u></b>									
1,4-Difluorobenzene <surr>	96.6		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	62.6		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM
<b><u>Semivolatile Organic Fuels Department</u></b>									
Diesel Range Organics	29.9	20.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	339	20.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
<b><u>Surrogates</u></b>									
5a Androstane <surr>	117		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	137		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Acenaphthylene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
2-Methylnaphthalene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Acenaphthene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Fluorene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Phenanthrene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Anthracene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM



SGS Ref.# 1054194008  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE6-08  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 16:10  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Pyrene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo(a)Anthracene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Chrysene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[b]Fluoranthene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[a]pyrene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Indeno[1,2,3-c,d] pyrene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Dibenzo[a,h]anthracene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[g,h,i]perylene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Naphthalene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
1-Methylnaphthalene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[k]fluoranthene	5.97 U	5.97	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	63.6		%	8270C SIMS	B	14-129	07/27/05	07/29/05	SPM
<b><u>Solids</u></b>									
Total Solids	83.5		%	SM20 2540G	B			07/26/05	JC



SGS Ref.# 1054194009  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-RE6-09  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 16:15  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	2570 U	2570	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML
Benzene	12.9 U	12.9	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML
Toluene	51.4 U	51.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML
Ethylbenzene	51.4 U	51.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML
P & M -Xylene	51.4 U	51.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML
o-Xylene	51.4 U	51.4	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	98.7		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MML
4-Bromofluorobenzene <surr>	74.9		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	22.0 U	22.0	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	85.8	22.0	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	72.6		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	89.9		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	87.9		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194010  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-PL-10  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 8:55  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	4630	2650	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Benzene	13.3 U	13.3	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Toluene	53.1 U	53.1	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Ethylbenzene	53.1 U	53.1	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
P & M -Xylene	110	53.1	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
o-Xylene	53.1 U	53.1	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	93.6		%	AK101 8021B	A	81-108	07/21/05	08/03/05	MML
4-Bromofluorobenzene <surr>	113		%	AK101 8021B	A	50-150	07/21/05	08/03/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	219	20.2	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	24.5	20.2	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	125		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	87.8		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	97.2		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194011  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-PL-11  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 9:15  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	2540 U	2540	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Benzene	12.7 U	12.7	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Toluene	50.9 U	50.9	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Ethylbenzene	50.9 U	50.9	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
P & M -Xylene	68.3	50.9	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
o-Xylene	50.9 U	50.9	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	96.7		%	AK101 8021B	A	81-108	07/21/05	08/03/05	MML
4-Bromofluorobenzene <surr>	106		%	AK101 8021B	A	50-150	07/21/05	08/03/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	228	18.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	27.9	18.8	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	116		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	92.1		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	98.2		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194012  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-PL-12  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 9:25  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.  
GRO/BTEX - BFB surrogate recovery is biased high due to matrix interference.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	302000	44300	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Benzene	168	22.2	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MCM
Toluene	6080	887	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Ethylbenzene	2920	887	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
P & M -Xylene	16200	887	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
o-Xylene	8750	887	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	94.4		%	AK101 8021B	A	81-108	07/21/05	08/03/05	MML
4-Bromofluorobenzene <surr>	957	!	%	AK101 8021B	A	50-150	07/21/05	08/03/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	8160	533	mg/Kg	AK102/103	B		07/28/05	08/02/05	JC
Residual Range Organics	533 U	533	mg/Kg	AK102/103	B		07/28/05	08/02/05	JC

**Surrogates**

5a Androstane <surr>	51.3		%	AK102/103	B	50-150	07/28/05	08/02/05	JC
n-Triacontane-d62 <surr>	57.6		%	AK102/103	B	50-150	07/28/05	08/02/05	JC

**Polynuclear Aromatics GC/MS**

Acenaphthylene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
2-Methylnaphthalene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Acenaphthene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Fluorene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Phenanthrene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Anthracene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM



SGS Ref.# 1054194012  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-PL-12  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 9:25  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Pyrene	131	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Benzo(a)Anthracene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Chrysene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Benzo[b]Fluoranthene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Benzo[a]pyrene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Indeno[1,2,3-c,d] pyrene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Dibenzo[a,h]anthracene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Benzo[g,h,i]perylene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Naphthalene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
1-Methylnaphthalene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
Benzo[k]fluoranthene	57.4 U	57.4	ug/Kg	8270C SIMS	B		07/27/05	08/02/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	105		%	8270C SIMS	B	14-129	07/27/05	08/02/05	SPM
<b><u>Solids</u></b>									
Total Solids	86.9		%	SM20 2540G	B			07/26/05	JC





SGS Ref.# 1054194013  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-PL-13  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 9:35  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.  
GRO/BTEX - BFB surrogate recovery is biased high due to matrix interference.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	197000	35400	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Benzene	200	177	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Toluene	5410	709	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
Ethylbenzene	2180	709	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
P & M -Xylene	11700	709	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML
o-Xylene	6490	709	ug/Kg	AK101 8021B	A		07/21/05	08/03/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	93.8		%	AK101 8021B	A	81-108	07/21/05	08/03/05	MML
4-Bromofluorobenzene <surr>	759	!	%	AK101 8021B	A	50-150	07/21/05	08/03/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	8190	563	mg/Kg	AK102/103	B		07/28/05	08/02/05	JC
Residual Range Organics	563 U	563	mg/Kg	AK102/103	B		07/28/05	08/02/05	JC

**Surrogates**

5a Androstane <surr>	58.3		%	AK102/103	B	50-150	07/28/05	08/02/05	JC
n-Triacontane-d62 <surr>	79.8		%	AK102/103	B	50-150	07/28/05	08/02/05	JC

**Solids**

Total Solids	87.8		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194014  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-SP-14  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 14:00  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	3710 U	3710	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML
Benzene	18.5 U	18.5	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML
Toluene	74.2 U	74.2	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML
Ethylbenzene	74.2 U	74.2	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML
P & M -Xylene	74.2 U	74.2	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML
o-Xylene	74.2 U	74.2	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MML

**Surrogates**

1,4-Difluorobenzene <surr>	99.2		%	AK101 8021B	A	81-108	07/21/05	08/02/05	MML
4-Bromofluorobenzene <surr>	76.1		%	AK101 8021B	A	50-150	07/21/05	08/02/05	MML

**Semivolatile Organic Fuels Department**

Diesel Range Organics	242	21.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	48.1	21.9	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	97.3		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	92		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Solids**

Total Solids	89.5		%	SM20 2540G	B			07/26/05	JC
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SGS Ref.# 1054194015  
 Client Name Shannon & Wilson-Fairbanks  
 Project Name/# 31-1-11251 Tanana Tank Site  
 Client Sample ID 1251-SP-15  
 Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
 Collected Date/Time 07/21/2005 14:10  
 Received Date/Time 07/23/2005 9:30  
 Technical Director Stephen C. Ede

Sample Remarks:

DRO - The pattern is consistent with a weathered middle distillate.  
 RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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**Volatile Fuels Department**

Gasoline Range Organics	3550 U	3550	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM
Benzene	17.8 U	17.8	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM
Toluene	71.0 U	71.0	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM
Ethylbenzene	71.0 U	71.0	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM
P & M -Xylene	71.0 U	71.0	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM
o-Xylene	71.0 U	71.0	ug/Kg	AK101 8021B	A		07/21/05	08/02/05	MCM

**Surrogates**

1,4-Difluorobenzene <surr>	95.9		%	AK101 8021B	A	81-108	07/21/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	76.3		%	AK101 8021B	A	50-150	07/21/05	08/02/05	MCM

**Semivolatile Organic Fuels Department**

Diesel Range Organics	99.0	19.3	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC
Residual Range Organics	58.5	19.3	mg/Kg	AK102/103	B		07/28/05	08/01/05	JC

**Surrogates**

5a Androstane <surr>	84.8		%	AK102/103	B	50-150	07/28/05	08/01/05	JC
n-Triacontane-d62 <surr>	90.1		%	AK102/103	B	50-150	07/28/05	08/01/05	JC

**Polynuclear Aromatics GC/MS**

Acenaphthylene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
2-Methylnaphthalene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Acenaphthene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Fluorene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Phenanthrene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Anthracene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM



SGS Ref.# 1054194015  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID 1251-SP-15  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/21/2005 14:10  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Polynuclear Aromatics GC/MS</u></b>									
Fluoranthene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Pyrene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo(a)Anthracene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Chrysene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[b]Fluoranthene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[a]pyrene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Indeno[1,2,3-c,d] pyrene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Dibenzo[a,h]anthracene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[g,h,i]perylene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Naphthalene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
1-Methylnaphthalene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
Benzo[k]fluoranthene	5.42 U	5.42	ug/Kg	8270C SIMS	B		07/27/05	07/29/05	SPM
<b><u>Surrogates</u></b>									
Terphenyl-d14 <surr>	74.5		%	8270C SIMS	B	14-129	07/27/05	07/29/05	SPM
<b><u>Solids</u></b>									
Total Solids	92.1		%	SM20 2540G	B			07/26/05	JC



SGS Ref.# 1054194016  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Client Sample ID Trip Blank  
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time 08/05/2005 16:24  
Collected Date/Time 07/20/2005 15:00  
Received Date/Time 07/23/2005 9:30  
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	2540 U	2540	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Benzene	12.7 U	12.7	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Toluene	50.8 U	50.8	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
Ethylbenzene	50.8 U	50.8	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
P & M -Xylene	50.8 U	50.8	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
o-Xylene	50.8 U	50.8	ug/Kg	AK101 8021B	A		07/20/05	08/02/05	MCM
<b><u>Surrogates</u></b>									
1,4-Difluorobenzene <surr>	96.2		%	AK101 8021B	A	81-108	07/20/05	08/02/05	MCM
4-Bromofluorobenzene <surr>	89.8		%	AK101 8021B	A	50-150	07/20/05	08/02/05	MCM
<b><u>Solids</u></b>									
Total Solids	100		%	SM20 2540G	A			07/26/05	JC



CT&E Ref.# 645003 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14021  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:

1054194009, 1054194010, 1054194011, 1054194012, 1054194013

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b><u>Volatile Fuels Department</u></b>				
Gasoline Range Organics	2500 U	2500	ug/Kg	08/02/05
Benzene	12.5 U	12.5	ug/Kg	08/02/05
Toluene	50.0 U	50.0	ug/Kg	08/02/05
Ethylbenzene	50.0 U	50.0	ug/Kg	08/02/05
P & M -Xylene	50.0 U	50.0	ug/Kg	08/02/05
o-Xylene	50.0 U	50.0	ug/Kg	08/02/05
<b>Surrogates</b>				
1,4-Difluorobenzene <surr>	93	81-108	%	08/02/05
4-Bromofluorobenzene <surr>	86.7	60-120	%	08/02/05
Batch	VFC7229			
Method	AK101 8021B			
Instrument	HP 5890 Series II PID+FID VDA			



SGS Ref.# 645004 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch VXX14021

Project Name/# 31-1-11251 Tanana Tank Site

Method AK101

Matrix Soil/Solid

Date 08/02/2005

QC results affect the following production samples:

1054194009, 1054194010, 1054194011, 1054194012, 1054194013

Sample Remarks:

LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>							
Gasoline Range Organics	LCS 9930	89	( 60-120 )			11200 ug/Kg	08/02/2005
Benzene	LCS 489	91	( 84-115 )			538 ug/Kg	08/02/2005
Toluene	LCS 1710	94	( 90-119 )			1820 ug/Kg	08/02/2005
Ethylbenzene	LCS 282	93	( 88-122 )			303 ug/Kg	08/02/2005
P & M -Xylene	LCS 1100	93	( 91-121 )			1180 ug/Kg	08/02/2005
o-Xylene	LCS 364	91	( 88-114 )			399 ug/Kg	08/02/2005
<b><u>Surrogates</u></b>							
1,4-Difluorobenzene <surr>	LCS	98	( 81-108 )			1250 ug/Kg	08/02/2005
4-Bromofluorobenzene <surr>	LCS	91	( 60-120 )			1250 ug/Kg	08/02/2005

Batch VFC7229

Method AK101 8021B

Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 645005 Matrix Spike  
645006 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14021  
Method AK101 Extraction (S)  
Date 08/02/2005

Original 645002  
Matrix Soil/Solid

QC results affect the following production samples:

1054194009, 1054194010, 1054194011, 1054194012, 1054194013

**Sample Remarks:**

MS GRO/BTEX - MS BFB field surrogate recovery is biased low due to a high moisture content in the sample. The recovery adjusted for moisture content is 102%.

MSD GRO/BTEX - MSD BFB field surrogate recovery is biased low due to a high moisture content in the sample. The recovery adjusted for moisture content is 98%.

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Volatile Fuels Department</b>									
Gasoline Range Organics	MS	681 U	2670	88	( 60-120 )			3050	ug/Kg 08/02/2005
	MSD		2630	86		2	(< 20 )	3050	ug/Kg 08/02/2005
Benzene	MS	3.41 U	135	92	( 84-115 )			147	ug/Kg 08/02/2005
	MSD		135	92		0	(< 20 )	147	ug/Kg 08/02/2005
Toluene	MS	13.6 U	482	97	( 90-119 )			497	ug/Kg 08/02/2005
	MSD		479	97		1	(< 20 )	497	ug/Kg 08/02/2005
Ethylbenzene	MS	13.6 U	79.1	96	( 88-122 )			82.5	ug/Kg 08/02/2005
	MSD		78.8	96		0	(< 20 )	82.5	ug/Kg 08/02/2005
P & M -Xylene	MS	13.6 U	310	97	( 91-121 )			321	ug/Kg 08/02/2005
	MSD		309	96		1	(< 20 )	321	ug/Kg 08/02/2005
o-Xylene	MS	13.6 U	104	96	( 88-114 )			109	ug/Kg 08/02/2005
	MSD		103	95		1	(< 20 )	109	ug/Kg 08/02/2005
<b>Surrogates</b>									
1,4-Difluorobenzene <surr>	MS		344	101	( 81-108 )			341	ug/Kg 08/02/2005
	MSD		347	102		1		341	ug/Kg 08/02/2005
4-Bromofluorobenzene <surr>	MS		158	46*	( 50-150 )			341	ug/Kg 08/02/2005
	MSD		151	44*		5		341	ug/Kg 08/02/2005

Batch VFC7229  
Method AK101 8021B  
Instrument HP 5890 Series II PID+FID VDA





CT&E Ref.# 645007 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14022  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:  
1054194014

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b><u>Volatile Fuels Department</u></b>				
Gasoline Range Organics	2500 U	2500	ug/Kg	08/02/05
Benzene	12.5 U	12.5	ug/Kg	08/02/05
Toluene	50.0 U	50.0	ug/Kg	08/02/05
Ethylbenzene	50.0 U	50.0	ug/Kg	08/02/05
P & M -Xylene	50.0 U	50.0	ug/Kg	08/02/05
o-Xylene	50.0 U	50.0	ug/Kg	08/02/05
<b>Surrogates</b>				
1,4-Difluorobenzene <surr>	94.9	81-108	%	08/02/05
4-Bromofluorobenzene <surr>	87.9	60-120	%	08/02/05
Batch	VFC7229			
Method	AK101 8021B			
Instrument	HP 5890 Series II PID+FID VDA			



SGS Ref.# 645008 Lab Control Sample  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14022  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:  
1054194014

Sample Remarks:  
LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>							
Gasoline Range Organics	LCS 9940	89	( 60-120 )			11200 ug/Kg	08/02/2005
Benzene	LCS 495	92	( 84-115 )			538 ug/Kg	08/02/2005
Toluene	LCS 1730	95	( 90-119 )			1820 ug/Kg	08/02/2005
Ethylbenzene	LCS 296	98	( 88-122 )			303 ug/Kg	08/02/2005
P & M -Xylene	LCS 1130	96	( 91-121 )			1180 ug/Kg	08/02/2005
o-Xylene	LCS 387	97	( 88-114 )			399 ug/Kg	08/02/2005
<b><u>Surrogates</u></b>							
1,4-Difluorobenzene <surr>	LCS	99	( 81-108 )			1250 ug/Kg	08/02/2005
4-Bromofluorobenzene <surr>	LCS	91	( 60-120 )			1250 ug/Kg	08/02/2005

Batch VFC7229  
Method AK101 8021B  
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 645009 Matrix Spike  
645010 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14022  
Method AK101 Extraction (S)  
Date 08/02/2005

Original 1054194014  
Matrix Soil/Solid

QC results affect the following production samples:  
1054194014

Sample Remarks:  
MS  
MSD

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Volatile Fuels Department</b>									
Gasoline Range Organics	MS	3710 U	16800	101	( 60-120 )			16600 ug/Kg	08/02/2005
	MSD		16800	101		0	(< 20 )	16600 ug/Kg	08/02/2005
Benzene	MS	18.5 U	744	93	( 84-115 )			798 ug/Kg	08/02/2005
	MSD		761	95		2	(< 20 )	798 ug/Kg	08/02/2005
Toluene	MS	74.2 U	2650	98	( 90-119 )			2700 ug/Kg	08/02/2005
	MSD		2720	101		3	(< 20 )	2700 ug/Kg	08/02/2005
Ethylbenzene	MS	74.2 U	450	100	( 88-122 )			449 ug/Kg	08/02/2005
	MSD		448	100		1	(< 20 )	449 ug/Kg	08/02/2005
P & M -Xylene	MS	74.2 U	1730	100	( 91-121 )			1740 ug/Kg	08/02/2005
	MSD		1750	101		1	(< 20 )	1740 ug/Kg	08/02/2005
o-Xylene	MS	74.2 U	613	104	( 88-114 )			592 ug/Kg	08/02/2005
	MSD		618	104		1	(< 20 )	592 ug/Kg	08/02/2005
<b>Surrogates</b>									
1,4-Difluorobenzene <surr>	MS		1880	101	( 81-108 )			1850 ug/Kg	08/02/2005
	MSD		1890	102		1		1850 ug/Kg	08/02/2005
4-Bromofluorobenzene <surr>	MS		1510	81	( 50-150 )			1850 ug/Kg	08/02/2005
	MSD		1500	81		1		1850 ug/Kg	08/02/2005

Batch VFC7229  
Method AK101 8021B  
Instrument HP 5890 Series II PID+FID VDA



CT&E Ref.# 645090 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14025  
Method AK101  
Date 08/01/2005

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194016

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
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**Volatile Fuels Department**

Gasoline Range Organics	2500 U	2500	ug/Kg	08/01/05
Benzene	12.5 U	12.5	ug/Kg	08/01/05
Toluene	50.0 U	50.0	ug/Kg	08/01/05
Ethylbenzene	50.0 U	50.0	ug/Kg	08/01/05
P & M -Xylene	50.0 U	50.0	ug/Kg	08/01/05
o-Xylene	50.0 U	50.0	ug/Kg	08/01/05

**Surrogates**

1,4-Difluorobenzene <surr>	96.4	81-108	%	08/01/05
4-Bromofluorobenzene <surr>	83.8	60-120	%	08/01/05

Batch VFC7231

Method AK101 8021B

Instrument HP 5890 Series II PID+HECD VBA



SGS Ref.# 645091 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch VXX14025

Project Name/# 31-1-11251 Tanana Tank Site

Method AK101

Matrix Soil/Solid

Date 08/01/2005

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194016

Sample Remarks:

LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Volatile Fuels Department</b>							
Gasoline Range Organics	LCS 9980	89	( 60-120 )			11200 ug/Kg	08/01/2005
Benzene	LCS 475	88	( 84-115 )			538 ug/Kg	08/01/2005
Toluene	LCS 1690	93	( 90-119 )			1820 ug/Kg	08/01/2005
Ethylbenzene	LCS 292	97	( 88-122 )			303 ug/Kg	08/01/2005
P & M -Xylene	LCS 1150	97	( 91-121 )			1180 ug/Kg	08/01/2005
o-Xylene	LCS 391	98	( 88-114 )			399 ug/Kg	08/01/2005
<b>Surrogates</b>							
1,4-Difluorobenzene <surr>	LCS	99	( 81-108 )			1250 ug/Kg	08/01/2005
4-Bromofluorobenzene <surr>	LCS	90	( 60-120 )			1250 ug/Kg	08/01/2005

Batch VFC7231

Method AK101 8021B

Instrument HP 5890 Series II PID+HECD VBA



SGS Ref.# 645092 Matrix Spike  
645093 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14025  
Method AK101 Extraction (S)  
Date 08/01/2005

Original 1054624006  
Matrix Soil/Solid

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194016

Sample Remarks:

MS

MSD

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Volatile Fuels Department</b>									
Gasoline Range Organics	MS	1890 U	9240	109	( 60-120 )			8450 ug/Kg	08/02/2005
	MSD		9990	118		8	(< 20 )	8450 ug/Kg	08/01/2005
Benzene	MS	9.43 U	379	93	( 84-115 )			406 ug/Kg	08/02/2005
	MSD		408	100		7	(< 20 )	406 ug/Kg	08/01/2005
Toluene	MS	37.7 U	1420	103	( 90-119 )			1370 ug/Kg	08/02/2005
	MSD		1500	109		6	(< 20 )	1370 ug/Kg	08/01/2005
Ethylbenzene	MS	37.7 U	250	109	( 88-122 )			228 ug/Kg	08/02/2005
	MSD		268	117		7	(< 20 )	228 ug/Kg	08/01/2005
P & M -Xylene	MS	65.4	1000	105	( 91-121 )			887 ug/Kg	08/02/2005
	MSD		1050	111		5	(< 20 )	887 ug/Kg	08/01/2005
o-Xylene	MS	45.3	369	108	( 88-114 )			302 ug/Kg	08/02/2005
	MSD		388	114		5	(< 20 )	302 ug/Kg	08/01/2005
<b>Surrogates</b>									
1,4-Difluorobenzene <surr>	MS		983	104	( 81-108 )			943 ug/Kg	08/02/2005
	MSD		977	104		1		943 ug/Kg	08/01/2005
4-Bromofluorobenzene <surr>	MS		725	77	( 50-150 )			943 ug/Kg	08/02/2005
	MSD		755	80		4		943 ug/Kg	08/01/2005

Batch VFC7231  
Method AK101 8021B  
Instrument HP 5890 Series II PID+HECD VBA



CT&E Ref.# 645235 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14031  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:

1054194007, 1054194015

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b><u>Volatile Fuels Department</u></b>				
Gasoline Range Organics	735F	2500	ug/Kg	08/02/05
Benzene	12.5 U	12.5	ug/Kg	08/02/05
Toluene	50.0 U	50.0	ug/Kg	08/02/05
Ethylbenzene	50.0 U	50.0	ug/Kg	08/02/05
P & M -Xylene	50.0 U	50.0	ug/Kg	08/02/05
o-Xylene	50.0 U	50.0	ug/Kg	08/02/05
<b>Surrogates</b>				
1,4-Difluorobenzene <surr>	94.5	81-108	%	08/02/05
4-Bromofluorobenzene <surr>	91.4	60-120	%	08/02/05
Batch	VFC7233			
Method	AK101 8021B			
Instrument	HP 5890 Series II PID+HECD VBA			



SGS Ref.# 645236 Lab Control Sample  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14031  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:  
1054194007, 1054194015

Sample Remarks:  
LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>							
Gasoline Range Organics	LCS 10500	93	( 60-120 )			11200 ug/Kg	08/02/2005
Benzene	LCS 482	90	( 84-115 )			538 ug/Kg	08/02/2005
Toluene	LCS 1770	97	( 90-119 )			1820 ug/Kg	08/02/2005
Ethylbenzene	LCS 304	100	( 88-122 )			303 ug/Kg	08/02/2005
P & M -Xylene	LCS 1210	103	( 91-121 )			1180 ug/Kg	08/02/2005
o-Xylene	LCS 403	101	( 88-114 )			399 ug/Kg	08/02/2005
<b><u>Surrogates</u></b>							
1,4-Difluorobenzene <surr>	LCS	99	( 81-108 )			1250 ug/Kg	08/02/2005
4-Bromofluorobenzene <surr>	LCS	91	( 60-120 )			1250 ug/Kg	08/02/2005

Batch VFC7233  
Method AK101 8021B  
Instrument HP 5890 Series II PID+HECD VBA





SGS Ref.# 645237 Matrix Spike  
645238 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14031  
Method AK101 Extraction (S)  
Date 08/02/2005

Original 1054194007  
Matrix Soil/Solid

QC results affect the following production samples:  
1054194007, 1054194015

Sample Remarks:  
MS  
MSD

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	MS	2900 U	13500	104	( 60-120 )			13000	ug/Kg 08/02/2005
	MSD		13400	103		0	(< 20 )	13000	ug/Kg 08/02/2005
Benzene	MS	14.5 U	584	94	( 84-115 )			624	ug/Kg 08/02/2005
	MSD		583	93		0	(< 20 )	624	ug/Kg 08/02/2005
Toluene	MS	58.0 U	2150	102	( 90-119 )			2110	ug/Kg 08/02/2005
	MSD		2150	101		0	(< 20 )	2110	ug/Kg 08/02/2005
Ethylbenzene	MS	58.0 U	388	110	( 88-122 )			351	ug/Kg 08/02/2005
	MSD		389	111		0	(< 20 )	351	ug/Kg 08/02/2005
P & M -Xylene	MS	58.0 U	1490	109	( 91-121 )			1360	ug/Kg 08/02/2005
	MSD		1490	109		0	(< 20 )	1360	ug/Kg 08/02/2005
o-Xylene	MS	58.0 U	505	109	( 88-114 )			463	ug/Kg 08/02/2005
	MSD		505	109		0	(< 20 )	463	ug/Kg 08/02/2005
<b>Surrogates</b>									
1,4-Difluorobenzene <surr>	MS		1480	102	( 81-108 )			1450	ug/Kg 08/02/2005
	MSD		1440	100		2		1450	ug/Kg 08/02/2005
4-Bromofluorobenzene <surr>	MS		1100	76	( 50-150 )			1450	ug/Kg 08/02/2005
	MSD		1090	75		1		1450	ug/Kg 08/02/2005

Batch VFC7233  
Method AK101 8021B  
Instrument HP 5890 Series II PID+HECD VBA



CT&E Ref.# 645265 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14034  
Method AK101  
Date 08/02/2005

QC results affect the following production samples:

1054194008

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b><u>Volatile Fuels Department</u></b>				
Gasoline Range Organics	2500 U	2500	ug/Kg	08/02/05
Benzene	12.5 U	12.5	ug/Kg	08/02/05
Toluene	50.0 U	50.0	ug/Kg	08/02/05
Ethylbenzene	50.0 U	50.0	ug/Kg	08/02/05
P & M -Xylene	50.0 U	50.0	ug/Kg	08/02/05
o-Xylene	50.0 U	50.0	ug/Kg	08/02/05
<b>Surrogates</b>				
1,4-Difluorobenzene <surr>	95.4	81-108	%	08/02/05
4-Bromofluorobenzene <surr>	83.3	60-120	%	08/02/05
Batch	VFC7233			
Method	AK101 8021B			
Instrument	HP 5890 Series II PID+HECD VBA			



SGS Ref.# 645266 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch VXX14034

Project Name/# 31-1-11251 Tanana Tank Site

Method AK101

Matrix Soil/Solid

Date 08/02/2005

QC results affect the following production samples:

1054194008

Sample Remarks:

LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>							
Gasoline Range Organics	LCS 10900	97	( 60-120 )			11200 ug/Kg	08/02/2005
Benzene	LCS 491	91	( 84-115 )			538 ug/Kg	08/02/2005
Toluene	LCS 1800	99	( 90-119 )			1820 ug/Kg	08/02/2005
Ethylbenzene	LCS 306	101	( 88-122 )			303 ug/Kg	08/02/2005
P & M -Xylene	LCS 1220	103	( 91-121 )			1180 ug/Kg	08/02/2005
o-Xylene	LCS 401	100	( 88-114 )			399 ug/Kg	08/02/2005
<b><u>Surrogates</u></b>							
1,4-Difluorobenzene <surr>	LCS	99	( 81-108 )			1250 ug/Kg	08/02/2005
4-Bromofluorobenzene <surr>	LCS	91	( 60-120 )			1250 ug/Kg	08/02/2005

Batch VFC7233

Method AK101 8021B

Instrument HP 5890 Series II PID+HECD VBA



SGS Ref.# 645267 Matrix Spike  
645268 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch VXX14034  
Method AK101 Extraction (S)  
Date 08/02/2005

Original 1054194008  
Matrix Soil/Solid

QC results affect the following production samples:  
1054194008

Sample Remarks:  
MS  
MSD

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Volatile Fuels Department</u></b>									
Gasoline Range Organics	MS	3220 U	13500	94	( 60-120 )			14500	ug/Kg 08/02/2005
	MSD		14400	100		6	(< 20 )	14500	ug/Kg 08/02/2005
Benzene	MS	16.1 U	642	93	( 84-115 )			693	ug/Kg 08/02/2005
	MSD		646	93		1	(< 20 )	693	ug/Kg 08/02/2005
Toluene	MS	64.4 U	2360	100	( 90-119 )			2350	ug/Kg 08/02/2005
	MSD		2380	101		1	(< 20 )	2350	ug/Kg 08/02/2005
Ethylbenzene	MS	64.4 U	418	107	( 88-122 )			390	ug/Kg 08/02/2005
	MSD		422	108		1	(< 20 )	390	ug/Kg 08/02/2005
P & M -Xylene	MS	64.4 U	1620	107	( 91-121 )			1520	ug/Kg 08/02/2005
	MSD		1640	108		1	(< 20 )	1520	ug/Kg 08/02/2005
o-Xylene	MS	64.4 U	553	107	( 88-114 )			515	ug/Kg 08/02/2005
	MSD		558	108		1	(< 20 )	515	ug/Kg 08/02/2005
<b><u>Surrogates</u></b>									
1,4-Difluorobenzene <surr>	MS		1640	102	( 81-108 )			1620	ug/Kg 08/02/2005
	MSD		1650	103		1		1620	ug/Kg 08/02/2005
4-Bromofluorobenzene <surr>	MS		1010	63	( 50-150 )			1620	ug/Kg 08/02/2005
	MSD		1080	67		6		1620	ug/Kg 08/02/2005

Batch VFC7233  
Method AK101 8021B  
Instrument HP 5890 Series II PID+HECD VBA



CT&E Ref.# 642091 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch XXX15438  
Method SW3550B  
Date 07/27/2005

QC results affect the following production samples:

1054194003, 1054194004, 1054194007, 1054194008, 1054194012, 1054194015

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b>Polynuclear Aromatics GC/MS</b>				
Acenaphthylene	4.99 U	4.99	ug/Kg	07/28/05
2-Methylnaphthalene	4.99 U	4.99	ug/Kg	07/28/05
Acenaphthene	4.99 U	4.99	ug/Kg	07/28/05
Fluorene	4.99 U	4.99	ug/Kg	07/28/05
Phenanthrene	4.99 U	4.99	ug/Kg	07/28/05
Anthracene	4.99 U	4.99	ug/Kg	07/28/05
Fluoranthene	4.99 U	4.99	ug/Kg	07/28/05
Pyrene	4.99 U	4.99	ug/Kg	07/28/05
Benzo(a)Anthracene	4.99 U	4.99	ug/Kg	07/28/05
Chrysene	4.99 U	4.99	ug/Kg	07/28/05
Benzo[b]Fluoranthene	4.99 U	4.99	ug/Kg	07/28/05
Benzo[a]pyrene	4.99 U	4.99	ug/Kg	07/28/05
Indeno[1,2,3-c,d] pyrene	4.99 U	4.99	ug/Kg	07/28/05
Dibenzo[a,h]anthracene	4.99 U	4.99	ug/Kg	07/28/05
Benzo[g,h,i]perylene	4.99 U	4.99	ug/Kg	07/28/05
Naphthalene	4.99 U	4.99	ug/Kg	07/28/05
1-Methylnaphthalene	4.99 U	4.99	ug/Kg	07/28/05
Benzo[k]fluoranthene	4.99 U	4.99	ug/Kg	07/28/05
<b>Surrogates</b>				
Terphenyl-d14 <surr>	86.3	14-129	%	07/28/05
Batch	XMS3342			
Method	8270C SIMS			
Instrument	HP 6890/5973 MS SVOA			



SGS Ref.# 642092 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch XXX15438

Project Name/# 31-1-11251 Tanana Tank Site

Method SW3550B

Matrix Soil/Solid

Date 07/27/2005

QC results affect the following production samples:

1054194003, 1054194004, 1054194007, 1054194008, 1054194012, 1054194015

Sample Remarks:

LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Polynuclear Aromatics GC/MS



SGS Ref.# 642092 Lab Control Sample

Client Name Shannon & Wilson-Fairbanks

Project Name/# 31-1-11251 Tanana Tank Site

Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54

Prep Batch XXX15438

Method SW3550B

Date 07/27/2005

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b><u>Polynuclear Aromatics GC/MS</u></b>							
Acenaphthylene	LCS 13.6	61	( 23-126 )			22.2 ug/Kg	07/28/2005
2-Methylnaphthalene	LCS 14.3	65	( 30-111 )			22.2 ug/Kg	07/28/2005
Acenaphthene	LCS 14.0	63	( 28-110 )			22.2 ug/Kg	07/28/2005
Fluorene	LCS 15.4	69	( 27-116 )			22.2 ug/Kg	07/28/2005
Phenanthrene	LCS 17.9	81	( 32-127 )			22.2 ug/Kg	07/28/2005
Anthracene	LCS 13.6	61	( 28-136 )			22.2 ug/Kg	07/28/2005
Fluoranthene	LCS 17.6	79	( 30-142 )			22.2 ug/Kg	07/28/2005
Pyrene	LCS 17.7	80	( 28-130 )			22.2 ug/Kg	07/28/2005
Benzo(a)Anthracene	LCS 17.9	81	( 31-146 )			22.2 ug/Kg	07/28/2005
Chrysene	LCS 18.1	81	( 39-134 )			22.2 ug/Kg	07/28/2005
Benzo[b]Fluoranthene	LCS 19.3	87	( 30-139 )			22.2 ug/Kg	07/28/2005
Benzo[a]pyrene	LCS 14.1	63	( 28-128 )			22.2 ug/Kg	07/28/2005
Indeno[1,2,3-c,d] pyrene	LCS 16.9	76	( 17-164 )			22.2 ug/Kg	07/28/2005
Dibenzo[a,h]anthracene	LCS 16.8	76	( 30-138 )			22.2 ug/Kg	07/28/2005
Benzo[g,h,i]perylene	LCS 16.7	75	( 21-149 )			22.2 ug/Kg	07/28/2005
Naphthalene	LCS 14.1	64	( 29-106 )			22.2 ug/Kg	07/28/2005
1-Methylnaphthalene	LCS 14.2	64	( 30-111 )			22.2 ug/Kg	07/28/2005
Benzo[k]fluoranthene	LCS 17.2	78	( 42-129 )			22.2 ug/Kg	07/28/2005
<b>Surrogates</b>							
Terphenyl-d14 <surr>	LCS	78	( 14-129 )			22.2 ug/Kg	07/28/2005



SGS Ref.# 642092 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch XXX15438

Project Name/# 31-1-11251 Tanana Tank Site

Method SW3550B

Matrix Soil/Solid

Date 07/27/2005

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Polynuclear Aromatics GC/MS

Batch XMS3342

Method 8270C SIMS

Instrument HP 6890/5973 MS SVOA





SGS Ref.#	642477	Matrix Spike	Printed Date/Time	08/08/2005 14:54
	642478	Matrix Spike Duplicate	Prep	Batch
			Method	Sonication Extraction Soil 8270
			Date	07/27/2005
Original	1054185005			
Matrix	Soil/Solid			

QC results affect the following production samples:

1054194003, 1054194004, 1054194007, 1054194008, 1054194012, 1054194015

Sample Remarks:

MS 8270C SIM - MS/MSD recoveries for several analytes do not meet QC goals. See LCS for recoveries.

MSD 8270C SIM - MS/MSD recoveries for several analytes do not meet QC goals. See LCS for recoveries.

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Polynuclear Aromatics GC/MS

SGS Ref.#	642477	Matrix Spike	Printed Date/Time	08/08/2005 14:54
	642478	Matrix Spike Duplicate	Prep	XXX15438
			Batch	Sonication Extraction Soil 8270
			Method	07/27/2005
			Date	

Original 1054185005  
Matrix Soil/Solid

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Polynuclear Aromatics GC/MS</b>									
Acenaphthylene	MS	ND	32.9	124	( 23-126 )			26.4	ug/Kg 07/29/2005
	MSD		34.9	132*		6	(< 50 )	26.4	ug/Kg 07/29/2005
2-Methylnaphthalene	MS	ND	1240	4,690*	( 30-111 )			26.4	ug/Kg 07/29/2005
	MSD		1290	4,850*		3	(< 50 )	26.4	ug/Kg 07/30/2005
Acenaphthene	MS	ND	32.7	124*	( 28-110 )			26.4	ug/Kg 07/29/2005
	MSD		34.9	132*		6	(< 50 )	26.4	ug/Kg 07/29/2005
Fluorene	MS	ND	37	140*	( 27-116 )			26.4	ug/Kg 07/29/2005
	MSD		40	152*		8	(< 50 )	26.4	ug/Kg 07/29/2005
Phenanthrene	MS	ND	20.4	77	( 32-127 )			26.4	ug/Kg 07/29/2005
	MSD		21.7	82		6	(< 50 )	26.4	ug/Kg 07/29/2005
Anthracene	MS	ND	17	65	( 28-136 )			26.4	ug/Kg 07/29/2005
	MSD		18.2	69		7	(< 50 )	26.4	ug/Kg 07/29/2005
Fluoranthene	MS	ND	18.9	72	( 30-142 )			26.4	ug/Kg 07/29/2005
	MSD		20	76		5	(< 50 )	26.4	ug/Kg 07/29/2005
Pyrene	MS	ND	19.4	73	( 28-130 )			26.4	ug/Kg 07/29/2005
	MSD		20.7	79		6	(< 50 )	26.4	ug/Kg 07/29/2005
Benzo(a)Anthracene	MS	ND	21.8	83	( 31-146 )			26.4	ug/Kg 07/29/2005
	MSD		21.1	80		4	(< 50 )	26.4	ug/Kg 07/29/2005
Chrysene	MS	ND	18.9	72	( 39-134 )			26.4	ug/Kg 07/29/2005
	MSD		19.3	73		2	(< 50 )	26.4	ug/Kg 07/29/2005
Benzo[b]Fluoranthene	MS	ND	19.9	75	( 30-139 )			26.4	ug/Kg 07/29/2005
	MSD		19.8	75		1	(< 50 )	26.4	ug/Kg 07/29/2005
Benzo[a]pyrene	MS	ND	18.9	71	( 28-128 )			26.4	ug/Kg 07/29/2005
	MSD		18.7	71		1	(< 50 )	26.4	ug/Kg 07/29/2005
Indeno[1,2,3-c,d] pyrene	MS	ND	16.9	64	( 17-164 )			26.4	ug/Kg 07/29/2005
	MSD		16.9	64		0	(< 50 )	26.4	ug/Kg 07/29/2005
Dibenzo[a,h]anthracene	MS	ND	16.4	62	( 30-138 )			26.4	ug/Kg 07/29/2005
	MSD		16.4	62		0	(< 50 )	26.4	ug/Kg 07/29/2005
Benzo[g,h,i]perylene	MS	ND	16.8	63	( 21-149 )			26.4	ug/Kg 07/29/2005
	MSD		17	65		2	(< 50 )	26.4	ug/Kg 07/29/2005
Naphthalene	MS	ND	408	1,550*	( 29-106 )			26.4	ug/Kg 07/29/2005
	MSD		426	1,620*		4	(< 50 )	26.4	ug/Kg 07/30/2005
1-Methylnaphthalene	MS	ND	982	3,720*	( 30-111 )			26.4	ug/Kg 07/29/2005
	MSD		1020	3,850*		3	(< 50 )	26.4	ug/Kg 07/30/2005
Benzo[k]fluoranthene	MS	ND	17.7	67	( 42-129 )			26.4	ug/Kg 07/29/2005
	MSD		18.7	71		6	(< 50 )	26.4	ug/Kg 07/29/2005
<b>Surrogates</b>									
Terphenyl-d14 <surr>	MS		18.8	71	( 14-129 )			26.4	ug/Kg 07/29/2005
	MSD		19.8	75		5		26.4	ug/Kg 07/29/2005



SGS Ref.#	642477	Matrix Spike	Printed Date/Time	08/08/2005 14:54
	642478	Matrix Spike Duplicate	Prep	Batch XXX15438
			Method	Sonication Extraction Soil 8270
			Date	07/27/2005
Original	1054185005			
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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**Polynuclear Aromatics GC/MS**

Batch	XMS3342
Method	8270C SIMS
Instrument	HP 6890/5973 MS SVOA



CT&E Ref.# 642522 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch XXX15443  
Method SW3550B  
Date 07/28/2005

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194007, 1054194008,  
1054194009, 1054194010, 1054194011, 1054194012, 1054194013, 1054194014, 1054194015

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
<b><u>Semivolatile Organic Fuels Department</u></b>				
Diesel Range Organics	19.6 U	19.6	mg/Kg	08/01/05
Residual Range Organics	4.58F	19.6	mg/Kg	08/01/05
<b>Surrogates</b>				
5a Androstane <surr>	82.3	60-120	%	08/01/05
n-Triacontane-d62 <surr>	88.8	60-120	%	08/01/05
Batch	XFC6696			
Method	AK102/103			
Instrument	HP 5890 Series II FID SV D F			



SGS Ref.# 642523 Lab Control Sample

Printed Date/Time 08/08/2005 14:54

Client Name Shannon & Wilson-Fairbanks

Prep Batch XXX15443

Project Name/# 31-1-11251 Tanana Tank Site

Method SW3550B

Matrix Soil/Solid

Date 07/28/2005

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194007, 1054194008, 1054194009, 1054194010, 1054194011, 1054194012, 1054194013, 1054194014, 1054194015

Sample Remarks:

LCS

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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**Semivolatile Organic Fuels Department**

Diesel Range Organics	LCS	31.0	94	( 75-125 )		32.9 mg/Kg	08/01/2005
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Residual Range Organics	LCS	30.6	93	( 60-120 )		32.9 mg/Kg	08/01/2005
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**Surrogates**

n-Triacontane-d62 <surr>	LCS		80	( 60-120 )		3.29 mg/Kg	08/01/2005
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5a Androstane <surr>	LCS		88	( 60-120 )		3.29 mg/Kg	08/01/2005
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Batch XFC6696

Method AK102/103

Instrument HP 5890 Series II FID SV D F

SGS Ref.# 642733 Matrix Spike  
642734 Matrix Spike Duplicate

Printed Date/Time 08/08/2005 14:54  
Prep Batch XXX15443  
Method Sonication Extraction Soil AK1  
Date 07/28/2005

Original 1054194007  
Matrix Soil/Solid

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194007, 1054194008, 1054194009,  
1054194010, 1054194011, 1054194012, 1054194013, 1054194014, 1054194015

Sample Remarks:

MS

MSD

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<b>Semivolatile Organic Fuels Department</b>									
Diesel Range Organics	MS	100	127	68	( 60-140 )			38.6 mg/Kg	08/01/2005
	MSD		124	65		1	(< 50 )	38 mg/Kg	08/01/2005
Residual Range Organics	MS	35.5	71.7	94	( 60-140 )			38.6 mg/Kg	08/01/2005
	MSD		71.2	94		1	(< 50 )	38 mg/Kg	08/01/2005
<b>Surrogates</b>									
5a Androstane <surr>	MS		2.91	76	( 50-150 )			3.86 mg/Kg	08/01/2005
	MSD		2.8	74		4		3.8 mg/Kg	08/01/2005
n-Triacontane-d62 <surr>	MS		2.59	67	( 50-150 )			3.86 mg/Kg	08/01/2005
	MSD		2.47	65		5		3.8 mg/Kg	08/01/2005
Batch	XFC6696								
Method	AK102/103								
Instrument	HP 5890 Series II FID SV D F								



CT&E Ref.# 642151 Method Blank  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch  
Method  
Date

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194007, 1054194008,  
1054194009, 1054194010, 1054194011, 1054194012, 1054194013, 1054194014, 1054194015, 1054194016

Sample Remarks:

Parameter	Results	Reporting/Control Limit	Units	Analysis Date
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**Solids**

Total Solids		100	%	07/26/05
Batch	SPT6186			
Method	SM20 2540G			
Instrument				



SGS Ref.# 642152 Duplicate  
Client Name Shannon & Wilson-Fairbanks  
Project Name/# 31-1-11251 Tanana Tank Site  
Original 1054194014  
Matrix Soil/Solid

Printed Date/Time 08/08/2005 14:54  
Prep Batch  
Method  
Date

QC results affect the following production samples:

1054194001, 1054194002, 1054194003, 1054194004, 1054194005, 1054194006, 1054194007, 1054194008, 1054194009,  
1054194010, 1054194011, 1054194012, 1054194013, 1054194014, 1054194015, 1054194016

Sample Remarks:

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
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**Solids**

Total Solids	89.5	89.1	%	0	(< 5 )	07/26/2005
Batch	SPT6186					
Method	SM20 2540G					
Instrument						