ENVIRONMENTAL ENGINEERING, HEALTH & SAFETY
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info@nortechengr.com www.nortechengr.com

September 10, 2007

Badger Fuel
1995 Badger Road
North Pole, AK 99705

ATTN: Ron Jaeger

RE: Summer 2007 Groundwater Sampling and Monitoring Update
578 Canoro Road, North Pole, Alaska

Dear Mr. Jaeger:

This letter report summarizes the groundwater monitoring and sampling events ***NORTECH*** completed between July 23 and September 7, 2007, at the residence located at 578 Canoro Road, North Pole, Alaska. The work was executed in general accordance with the proposal (dated July 13, 2007) to evaluate the proposed Aquifer Characterization Work Plan dated March 28, 2007. Figure 1 shows the location of the site. Figure 2 shows the well monitoring locations, status based on the July sampling events, and the groundwater elevation contour map on August 25 during a groundwater elevation monitoring event. The third figure is a copy of Figure 1 from the proposed aquifer characterization program. Groundwater elevation data is summarized in Table 1, the laboratory results and field duplicate analysis from the July sampling event are shown in Table 2, and the historical results from the wells at this site are included in Table 3. A copy of the laboratory reports for these sampling events is also attached.

Work Description and Field Activities

David Miller and Peter Beardsley of ***NORTECH*** mobilized to the site on July 23 and July 26, 2007, respectively, to purge and sample the onsite monitoring wells. A total of seven wells were sampled (DW1, DW2, SW1, SW2, SW3 SW4 and SW5). Samples from the seven wells were analyzed for diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by AK102 and 8021 methodologies, respectively. Analysis results are summarized in Table ***NORTECH*** also collected depth-to-groundwater measurements from the seven wells using a water level indicator.

During this monitoring event, it was observed that a number of the wells had “frost jacked” and/or sustained other damage from snow removal during the winter. As a result, the hydraulic gradient for this monitoring event could not be calculated and these wells required elevation adjustments and a new elevation survey. Ronald Pratt of ***NORTECH*** mobilized to the site on August 25, 2007 to conduct groundwater monitoring and to repair the wells that had sustained damage during the winter. Each well was inspected and the wellhead elevations were adjusted as necessary by cutting a portion

off of the top of the well casing. Groundwater and free product (where present) elevation measurements were collected from each of the seven monitoring wells. On August 28, 2007, David Miller of ***NORTECH*** mobilized to the site to oversee the surveying of the new wellhead elevations for the onsite monitoring wells. In addition, the wellhead elevation for the old drinking water well (DWW) was also surveyed at this time. Groundwater elevation measurements were collected from each well, including well DWW.

On September 7, 2007, Ronald Pratt of ***NORTECH*** mobilized to the site to conduct groundwater monitoring and free product recovery. Groundwater and free product (where present) elevations were collected from each of the seven monitoring wells and also from the well DWW. Free product was also purged from well SW-5 during this monitoring event. A total of 0.25 L of free product was recovered from the well along with 0.5 L of water and fuel emulsion. Groundwater and free product elevation measurements were again obtained from the well immediately after purging, after 3 minutes, 10 minutes, and 30 minutes, to provide data regarding the free product re-charge rate in this well.

Results with Discussion

Hydraulic Gradient

Groundwater elevation and free product elevation data collected during three events between July 23, and September 7, 2007 and is summarized in Table 1. The groundwater elevations indicate that the elevation of the top of the water table beneath the site is generally higher on the east and lower on the west with a very shallow hydraulic gradient. Groundwater elevation data collected from well SW-5 was omitted from the gradient calculations due to the persistent presence of free phase heating oil product floating on the water surface in this well.

The overall change in groundwater elevation across the site was consistently close to 0.1 feet over a distance of approximately 126 feet during each of the monitoring events subsequent to wellhead elevation adjustments. Winter gradients are summarized in the March report. Calculated groundwater gradients for the August 25, August 28, and September 7 monitoring event shows the groundwater flowing in a westerly direction at gradients of 0.000674, 0.000754, and 0.000595 feet per foot, respectively. The groundwater surface elevations from the August 25 event are shown on Figure 2.

The summer data shows a fluctuation between the August 25 event (highest) and the September 7 event (lowest) of approximately one foot. Data collected during the winter of 2007 (February and March) indicate that these results are in the middle of the summer range. This is unexpected due to the overall groundwater recession that occurs in the Chena and Tanana floodplains and tends to result in lower groundwater elevations in the winter than in the summer. Overall, the data suggests the hydraulic

gradient is generally west, but the data set is not adequate to establish any annual and/or long term gradient magnitude analysis trends. Additional groundwater elevation monitoring is recommended at least monthly through June of 2008.

Laboratory Results and Quality Control Summary

Samples were collected from the onsite monitoring wells, the former drinking water well, and the product recovery well during the July monitoring and sampling event. Each sample was analyzed for DRO and BTEX by Method AK102 and 8021, respectively. The laboratory results and quality control analysis are summarized in Table 2. Table 3 summarizes the ADEC cleanup levels and historic groundwater data available since monitoring began in February 2007. The results for each well are discussed below.

DW1 is located on the west side of the house. BTEX and DRO contaminants were not detected at the laboratory detection limits during the July sampling event. Toluene and total xylenes had previously been detected at low concentrations in this well during the February sampling event. This well remains below the ADEC regulatory limits.

BTEX and DRO contaminants continue to be present in well DW-2, located near the former drinking water well on the east side of the house. BTEX contaminant concentrations from the July sampling event were lower than the results from the February sampling event. Benzene continues to be present in concentrations exceeding the ADEC cleanup limit, and toluene, ethylbenzene, and total xylenes continue to be present in concentrations below the ADEC cleanup limit. The DRO contaminant concentration was slightly higher in July than in February, however both sampling events exceeded the ADEC cleanup limit.

SW1 is located southwest of the release location near the driveway on the west side of the house. Benzene, ethylbenzene, and total xylenes were detected in the sample collected from SW-1 in July. The benzene concentration exceeded the ADEC cleanup limit while the ethylbenzene and total xylenes concentrations were below the cleanup limit. Toluene and DRO contaminants were not detected in the sample at the laboratory detection limits. DRO and BTEX contaminants had not been detected in this well in February.

SW2 and SW3 are located west and northwest of the house. BTEX and DRO contaminants were not detected at the laboratory detection limits during the July sampling event. These results are consistent with the results of the previous sampling event.

SW4 is located north of the release location. The concentration of total xylenes was slightly above the detection limit in February, but was well below the cleanup level. No contaminants of concern were detected in July.

A sample was not collected from monitoring well SW-5 during the July sampling event due to the presence of a layer of free phase petroleum contaminants floating on the water surface that exceeded 0.03 feet.

A sample was collected from the product recovery well, DRW, during the July sampling event. Laboratory results show the presence of DRO contaminants in this sample at concentrations below the ADEC Cleanup limit. BTEX contaminants were not detected in the sample at the laboratory detection limits.

A sample was also collected from the old drinking water well (DWW), during the July sampling event. Laboratory results show the presence of DRO contaminants in this sample at concentrations exceeding the ADEC Cleanup level. BTEX contaminants were all detected in the sample and contaminant concentrations were below the ADEC cleanup limit for each compound.

The field sampling effort was intended to provide an update to the data set and reevaluate the previously proposed aquifer characterization program. The field methods were consistent with ADEC guidelines and the sample integrity is of adequate quality. One field duplicate soil sample was collected to identify potential sample collection, handling, or analysis deficiencies. A second field duplicate was not collected with the second set of samples due to the low number of samples and field duplicate that had already been collected from the site earlier that week. The quality control summary associated with the field duplicate is shown at the bottom of Table 1 and the results are within ADEC parameters.

Each SGS laboratory report contains a case narrative located on page 2. The case narrative describes some of the potential quality issues with the samples and the corrective action or opinion of the laboratory of the impact of these issues on the sample results. ***NORTECH*** reviewed these potential quality issues as well as the other quality related portions of the laboratory report for issues that are considered significant to the overall quality of the laboratory data. This evaluation is located in the ADEC Laboratory Quality Review Checklist which is attached. These issues are not considered to have had a significant impact on the quality of the data. Overall, the analytical data is considered acceptable for the intended use at the site.

Summary and Evaluation of Previous Recommendations

The groundwater elevation data continue to show a slight hydraulic gradient that is generally west with deviations to the northwest and southwest. The elevation of the groundwater has not changed as much as expected between summer and winter seasons and additional regular monitoring through the annual groundwater recession is needed to document the groundwater conditions. Groundwater elevation and free product monitoring at least monthly is recommended through next spring, which is consistent with the previously recommended activities at the site.

Free phase petroleum remains present at a considerable depth in SW5, located to the northeast of the release location. As indicated in previous reports, this appears to be hydraulically upgradient of the release location and additional characterization of the aquifer is necessary to determine both the reason for free product in this location as well as the extent of contamination on the east side of the building. The use of ground penetrating radar to document subsurface horizons and/or obstructions, installation of additional small diameter monitoring wells, and installation of larger diameter free product recovery wells remain necessary to document the subsurface conditions and cost effectively remove petroleum from the surface of the groundwater.

Dissolved BTEX compounds are now present in SW1, with benzene exceeding the ADEC cleanup level. This well is located downgradient of the release area along the southern boundary of the property. This dissolved contamination was not present in February, but is consistent with the hydraulic gradient at the site. This suggests that dissolved contamination could be migrating off site to the south. A survey to establish the actual location of the southern property boundary is recommended, if recoverable corners have not be set already, and installation of an additional shallow monitoring well is recommended along the southern boundary of the property near the house. Additional offsite wells may be recommended based on the results from additional sampling in this area. This work is in addition to previous recommendations due to the presence of contamination in SW1.

Overall, a comparison of analytical data from the February and July sampling events indicated that the groundwater contamination beneath the site is not stabilized and continues to migrate beneath the site. This is expected based on the recent occurrence of the release. The groundwater elevation data and appearance of BTEX compounds in SW1 suggests that the gradient is generally to the west, consistent with expectation based on the geometry of the Chena River around the site. Once the aquifer characterization is complete, location and installation of a new drinking water well should be possible. This work should be able to be completed around the beginning of October with a site for a new well identified by early November. The addition of new shallow groundwater monitoring wells in the future to the south and/or west may be necessary as the contamination continues to stabilize across the site.

Conclusions and Recommendations

This letter report summarizes the results of the groundwater sampling and monitoring events conducted at the residence located at 578 Canoro Road, North Pole, Alaska, between July 23 and September 7, 2007. This report evaluates these results in terms of the historical data at the site, and provides an updated summary of groundwater gradient information and groundwater contaminant migration observed at the site. Based on the current and available soil and groundwater data, ***NORTECH*** has arrived at the following conclusions:

- Groundwater elevations have fluctuated approximately one foot since the monitoring wells were installed
- Groundwater elevations indicate the hydraulic gradient is generally westerly with minimal magnitude
- Additional seasonal water table elevation data is needed to evaluate long-term trends at the site
- BTEX compounds have been detected in SW1, located southwest of the release on the southern property boundary
- Contaminant concentrations in other wells did not change significantly between February and July
- Free phase petroleum continues to be measurable in SW5

Based on these observations, ***NORTECH*** has the following recommendations:

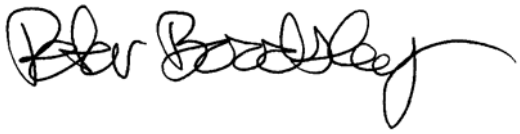
- Complete the previously proposed aquifer characterization program, including:
    - Ground penetrating radar to document soil stratigraphy
    - Direct push soil borings to field verify GPR findings
    - installation of new shallow monitoring wells in the vicinity of SW5
    - installation of four-inch diameter recovery wells near SW5 or other locations with significant quantities of product
- Identify the southern property boundary through existing monuments and/or a new boundary survey
- Installation of a new shallow monitoring well along the southern boundary near the house to evaluate the potential for off-site migration to the south

As outlined in the aquifer characterization work plan, the ultimate objective of this project is to have the groundwater meet the ADEC drinking water standards. The recommended data collection will be used to assess potential remediation strategies to reduce the cleanup timeframe and development of a multi-year groundwater monitoring

program. In the short term, the data will be used to identify a location for a new permanent water source for the residence. The execution of the proposed activities by mid-October is expected to yield adequate data for well installation this season.

Please contact me at your earliest convenience if you have any questions about the data presented in the report or the site in general.

Sincerely,
NORTECH

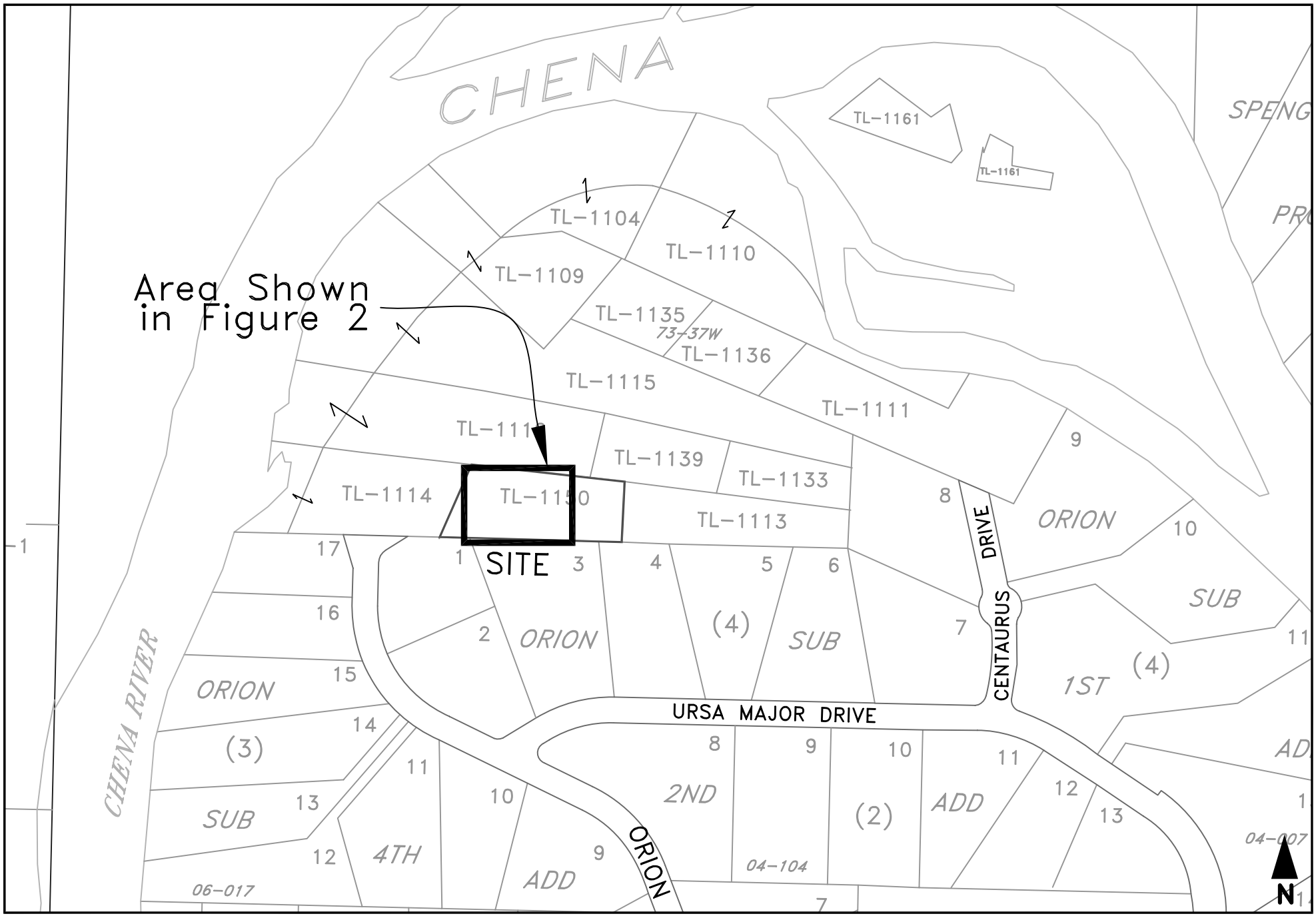


Peter Beardsley, PE
Environmental Engineer

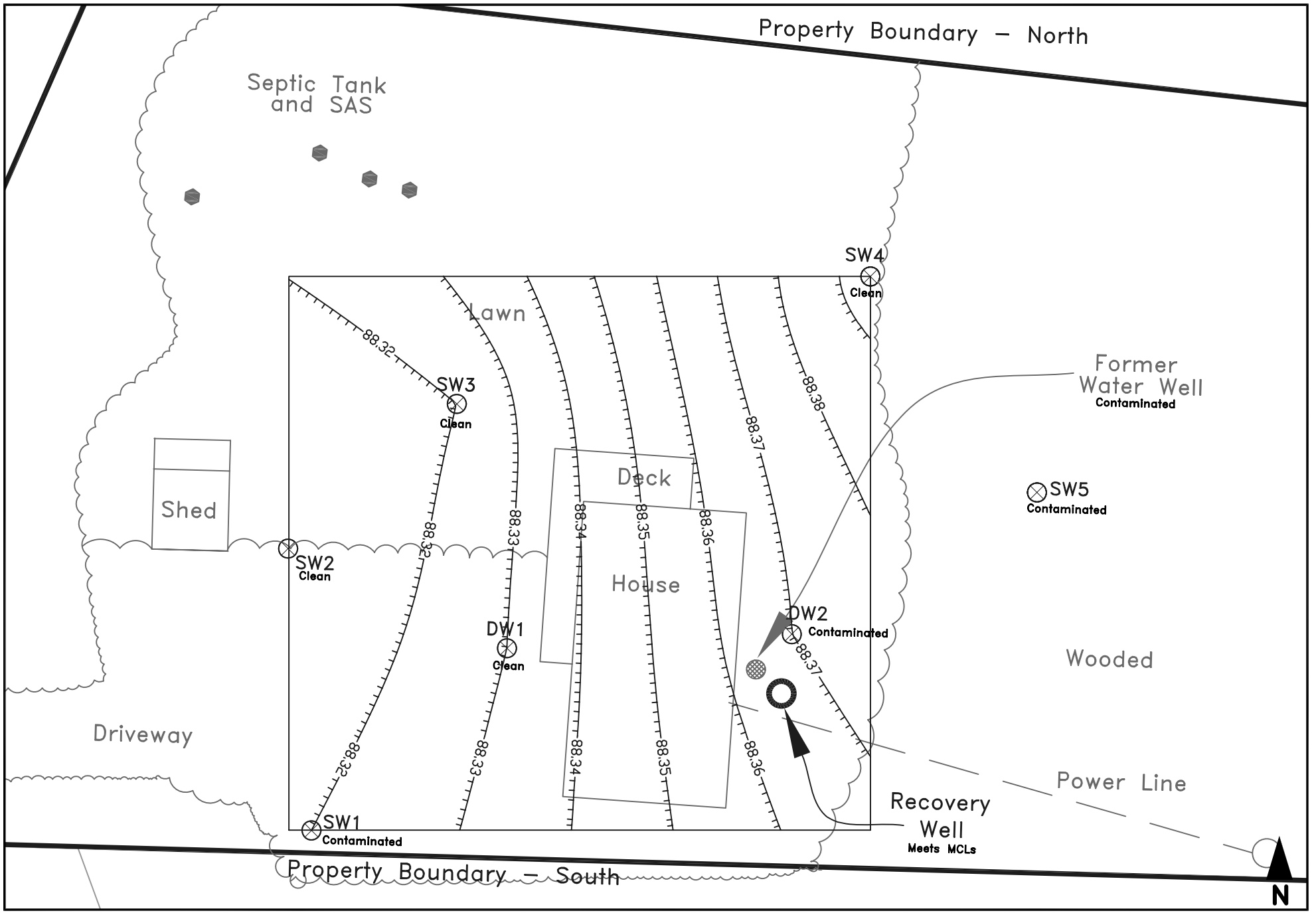
Attachments:
Figure 1	Vicinity Map
Figure 2	Hydraulic Gradient, August 25, 2007
Figure 3	Figure 1 from Aquifer Characterization Work Plan
Table 1	Groundwater Elevation Summary
Table 2	Groundwater Laboratory Results and QC Summary
Table 3	Historical Groundwater Results

Copy of Original Laboratory Reports
ADEC Laboratory Quality Review Checklist

Distribution list:
Ron Jaeger – badger.fuel@acsalaska.net
Brian Bell – brian-bell@wiltonalaska.com
Terence Dahl – tdahl@markelcorp.com



NORTECH	ENVIRONMENTAL & ENGINEERING CONSULTANTS 2400 College Road, Fairbanks, Alaska 99709 (907) 452-5688 FAX: (907) 452-5694	Vicinity Map 578 Canoro Road North Pole, Alaska	DATE: 09/10/07 SCALE: 1" = 300' DESIGN: PLB PROJECT: 06-1080 DRAWN: PLB DWG: 061080c(201)	FIGURE 1

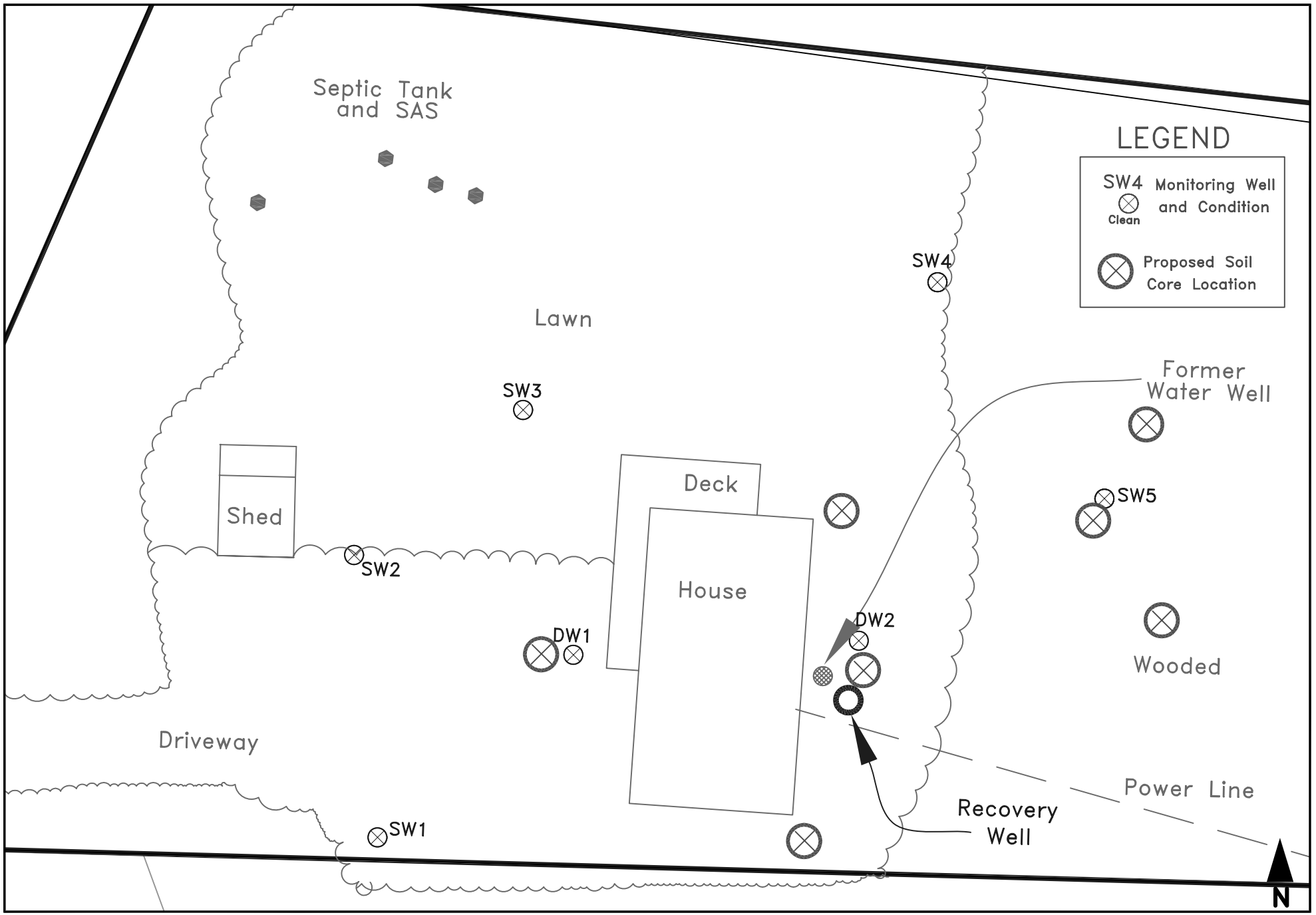


NORTECH
ENVIRONMENTAL & ENGINEERING CONSULTANTS
2400 College Road, Fairbanks, Alaska 99709
(907) 452–5688 FAX: (907) 452–5694

Groundwater Elevation and Status
578 Canoro Road
North Pole, Alaska

DATE: 09/10/07	SCALE: 1" = 25'
DESIGN: PLB	PROJECT: 06–1080
DRAWN: PLB	DWG: 061080c(202)

FIGURE 2



NORTECH	ENVIRONMENTAL & ENGINEERING CONSULTANTS 2400 College Road, Fairbanks, Alaska 99709 (907) 452-5688 FAX: (907) 452-5694	Proposed Continuous Soil Core Locations 578 Canoro Road North Pole, Alaska	DATE: 03/27/07 SCALE: 1" = 25' DESIGN: PLB PROJECT: 06-1080 DRAWN: PLB DWG: 061080c(01wp)	FIGURE 1

Table 1
Groundwater Elevations

	16-Feb-07	6-Mar-07	25-Aug-07	28-Aug-07	7-Sep-07
SW1	87.97	87.84	88.32	87.99	87.36
SW2	87.95	87.83	88.31	87.96	87.34
SW3	87.97	87.84	88.32	88.04	87.37
SW4	88.00	87.90	88.40	88.06	87.42
SW5	NA	NA	NA	NA	NA
DW1	87.99	87.85	88.33	87.99	87.37
DW2	88.10	87.92	88.37	88.04	87.41
DWW				88.03	87.41

Event Summary

	16-Feb-07	6-Mar-07	25-Aug-07	28-Aug-07	7-Sep-07
Maximum	88.10	87.92	88.40	88.06	87.42
Minimum	87.95	87.83	88.31	87.96	87.34
Difference	0.15	0.09	0.08	0.10	0.08

Well Summary

	Maximum	Minimum	Difference
SW1	88.32	87.36	0.96
SW2	88.31	87.34	0.97
SW3	88.32	87.37	0.95
SW4	88.40	87.42	0.98
SW5	NA	NA	NA
DW1	88.33	87.37	0.96
DW2	88.37	87.41	0.96
DWW	88.03	87.41	0.62

Table 2
Groundwater Results - July 23 and 26, 2007

Sample ID	Benzene	Toluene	Ethylbenzene	Tot Xylenes	DRO	Lab Comment
Units	mg/L	mg/L	mg/L	mg/L	mg/L	
ADEC Limit	0.005	1	0.7	10	1.5	
DW1	0.0005U	0.002U	0.002U	0.002U	0.324U	
DW10(Dup1)	0.0005U	0.002U	0.002U	0.002U	0.319U	
DW2	**0.0452**	0.416	0.209	1.253	**19.3**	WMD
SW1	**0.00982**	0.002U	0.00864	0.0550	0.333U	
SW2	0.0005U	0.002U	0.002U	0.002U	0.324U	
SW3	0.0005U	0.002U	0.002U	0.002U	0.313U	
SW4	0.0005U	0.002U	0.002U	0.002U	0.316U	
SW5	**Free product depth greater than 0.03 feet**					
DRW (Recovery)	0.0005U	0.002U	0.002U	0.002U	1.10	WMD
DWW (Old Well)	0.00321	0.110	0.120	0.644	**14.4**	WMD

Notes:

U	Analyte not detected at the listed detection limit
Shade	Analyte detected in concentration below the ADEC Cleanup level
Bold	Analyte detected in concentration exceeding the ADEC Cleanup level
WMD	Pattern is consistent with a weathered middle distillate

Quality Control Summary

Sample ID	Benzene	Toluene	Ethylbenzene	Tot Xylenes	DRO
Units	mg/L	mg/L	mg/L	mg/L	mg/L
DW1	0.0005U	0.002U	0.002U	0.002U	0.324U
DW10(Dup1)	0.0005U	0.002U	0.002U	0.002U	0.319U
Average	NA	NA	NA	NA	NA
Difference	NA	NA	NA	NA	NA
RPD (%)	NA	NA	NA	NA	NA

Notes:

NA	Calculation does not apply to non-detect results

Table 3
Groundwater Results - Historical Summary

Well ID	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	DRO	Lab Comment
Units		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	
ADEC Limit		0.005	1	0.7	10	1.5	
DW1-W1	Feb-07	0.0005U	0.00245	0.002U	0.00813	0.319U	
DW1	Jul-07	0.0005U	0.002U	0.002U	0.002U	0.324U	
DW10(Dup1)	Jul-07	0.0005U	0.002U	0.002U	0.002U	0.319U	
DW2-W2	Feb-07	**0.117**	0.698	0.269	1.639	**15.0**	WMD/WG
DW2-W3(Dup)	Feb-07	**0.113**	0.702	0.277	1.667	**8.64**	WMD/WG
DW2	Jul-07	**0.0452**	0.416	0.209	1.253	**19.3**	WMD
SW1-W4	Feb-07	0.0005U	0.002U	0.002U	0.002U	0.326U	
SW1	Jul-07	**0.00982**	0.002U	0.00864	0.0550	0.333U	
SW2-W5	Feb-07	0.0005U	0.002U	0.002U	0.002U	0.333U	
SW2	Jul-07	0.0005U	0.002U	0.002U	0.002U	0.324U	
SW3-W6	Feb-07	0.0005U	0.002U	0.002U	0.002U	0.313U	
SW3	Jul-07	0.0005U	0.002U	0.002U	0.002U	0.313U	
SW4-W7	Feb-07	0.0005U	0.002U	0.002U	0.00238	0.326U	
SW4	Jul-07	0.0005U	0.002U	0.002U	0.002U	0.316U	
SW5-W8	Feb-07	**0.466**	**1.670**	**0.767**	4.400	**2320**	
SW5	Jul-07	Not sampled due to free product depth greater than 0.03 feet					
DRW (Recovery)	Jul-07	0.0005U	0.002U	0.002U	0.002U	1.10	WMD
DWW (Old Well)	Jul-07	0.00321	0.110	0.120	0.644	**14.4**	WMD

Notes:

U	Analyte not detected at the listed detection limit
Shade	Analyte detected in concentration below the ADEC Cleanup level
Bold	Analyte detected in concentration exceeding the ADEC Cleanup level
WMD	Pattern is consistent with a weathered middle distillate
WG	Pattern is consistent with weathered gasoline

SGS Environmental Services
Alaska Division
Level II Laboratory Data Report

Project:	06-1080
Client:	Nortech
SGS Work Order:	1073511

Released by:

Alaska Division Technical Director

Stephen C. Ede
2007.07.31
16:50:00 -08'00'

Contents:

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

Case Narrative

Client	NORTECH	Nortech	**Printed Date/Time**	7/31/2007	16:17
Workorder	1073511	06-1080			

Sample ID	Client Sample ID

Refer to the sample receipt form for information on sample condition.

1073511004 **PS** **DW2**

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

1073511005 **PS** **DRW**

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

1073511006 **PS** **DWW**

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

779097 **MB** **MB for HBN 189055 [XXX/18341]**

RRO - Surrogate is outside QC goals (biased high) due to hydrocarbon interference.

Laboratory Analysis Report

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

Dave Miller
Nortech
2400 College
Fairbanks, AK 99709

Work Order:	1073511
	06-1080
Client:	Nortech
Report Date:	July 31, 2007

Released by:

Alaska Division Technical Director

Stephen C. Ede
2007.07.31
16:50:17 -08'00'

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 Assurance Plan (QAP), which outlines this program, is available at your request.

The laboratory certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro) for ADEC and 001582 for NELAP (RCRA methods: 1010/1020, 1311, 6000/7000, 9040/9045, 9056, 9060, 9065, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

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

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 MDL.
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.#	1073511001	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 12:50
Client Sample ID	SW4	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	93.4		%	SW8021B	A	80-120	07/25/07	07/25/07	HM
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.316	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	89.9		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511002	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 12:20
Client Sample ID	DW1	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	94.3		%	SW8021B	A	80-120	07/25/07	07/25/07	HM
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.324	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	106		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511003	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 12:20
Client Sample ID	DW10	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Toluene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Surrogates									
1,4-Difluorobenzene <surr>	89.9		%	SW8021B	A	80-120	07/25/07	07/25/07	NHN
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.319	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	96.1		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511004	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 14:45
Client Sample ID	DW2	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

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

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	45.2	5.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Toluene	416	20.0	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Ethylbenzene	209	20.0	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
P & M -Xylene	819	20.0	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
o-Xylene	434	20.0	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Surrogates									
1,4-Difluorobenzene <surr>	92.9		%	SW8021B	A	80-120	07/25/07	07/25/07	NHN
Semivolatile Organic Fuels Department									
Diesel Range Organics	19.3	0.326	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	109		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511005	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 13:10
Client Sample ID	DRW	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

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

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Toluene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Surrogates									
1,4-Difluorobenzene <surr>	89.6		%	SW8021B	A	80-120	07/25/07	07/25/07	NHN
Semivolatile Organic Fuels Department									
Diesel Range Organics	1.10	0.333	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	124		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511006	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 14:15
Client Sample ID	DWW	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

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

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	3.21	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Toluene	110	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Ethylbenzene	120	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
P & M -Xylene	424	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
o-Xylene	220	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Surrogates									
1,4-Difluorobenzene <surr>	92.6		%	SW8021B	A	80-120	07/25/07	07/25/07	NHN
Semivolatile Organic Fuels Department									
Diesel Range Organics	14.4	0.326	mg/L	AK102	D		07/26/07	07/30/07	HKG
Surrogates									
5a Androstane <surr>	112		%	AK102	D	50-150	07/26/07	07/30/07	HKG

SGS Ref.#	1073511007	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	07/31/2007 16:17
Project Name/#	06-1080	**Collected Date/Time**	07/23/2007 12:20
Client Sample ID	TB	**Received Date/Time**	07/24/2007 9:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Toluene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/25/07	07/25/07	NHN
Surrogates									
1,4-Difluorobenzene <surr>	96.5		%	SW8021B	A	80-120	07/25/07	07/25/07	NHN

SGS Ref.#	778760	Method Blank	**Printed Date/Time**	07/31/2007 16:17
Client Name	Nortech		**Prep Batch**	VXX17009
Project Name/#	06-1080		**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)		**Date**	07/25/2007

QC results affect the following production samples:

1073511001, 1073511002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Fuels Department					
Benzene	ND	0.500	0.150	ug/L	07/25/07
Toluene	ND	2.00	0.620	ug/L	07/25/07
Ethylbenzene	ND	2.00	0.620	ug/L	07/25/07
P & M -Xylene	0.642 J	2.00	0.620	ug/L	07/25/07
o-Xylene	ND	2.00	0.620	ug/L	07/25/07
Surrogates					
1,4-Difluorobenzene <surr>	93.8	80-120		%	07/25/07
Batch	VFC8486				
Method	SW8021B				
Instrument	HP 5890 Series II PID+HECD VBA				

SGS Ref.#	778801	Method Blank	**Printed Date/Time**	07/31/2007 16:17
Client Name	Nortech		**Prep Batch**	VXX17012
Project Name/#	06-1080		**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)		**Date**	07/25/2007

QC results affect the following production samples:

1073511003, 1073511004, 1073511005, 1073511006, 1073511007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Fuels Department					
Benzene	ND	0.500	0.150	ug/L	07/25/07
Toluene	ND	2.00	0.620	ug/L	07/25/07
Ethylbenzene	ND	2.00	0.620	ug/L	07/25/07
P & M -Xylene	ND	2.00	0.620	ug/L	07/25/07
o-Xylene	ND	2.00	0.620	ug/L	07/25/07
Surrogates					
1,4-Difluorobenzene <surr>	97	80-120		%	07/25/07
Batch VFC8487					
Method SW8021B					
Instrument HP 5890 Series II PID+FID VCA					

SGS Ref.#	779097	Method Blank	**Printed Date/Time**		07/31/2007 16:17
Client Name	Nortech		**Prep**	**Batch**	XXX18341
Project Name/#	06-1080			**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)			**Date**	07/26/2007

QC results affect the following production samples:

1073511001, 1073511002, 1073511003, 1073511004, 1073511005, 1073511006

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	0.300	0.0600	mg/L	07/30/07
Surrogates					
5a Androstane <surr>	103	60-120		%	07/30/07
Batch					
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				

SGS Ref.#	778761	Lab Control Sample	**Printed Date/Time**	07/31/2007	16:17
	778762	Lab Control Sample Duplicate	**Prep Batch**	VXX17009	
Client Name	Nortech		**Method**	SW5030B	
Project Name/#	06-1080		**Date**	07/25/2007	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1073511001, 1073511002

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department								
Benzene	LCS	93.0	93	(80-120)			100 ug/L	07/25/2007
	LCSD	90.6	91		3	(< 20)	100 ug/L	07/25/2007
Toluene	LCS	92.1	92	(80-120)			100 ug/L	07/25/2007
	LCSD	90.0	90		2	(< 20)	100 ug/L	07/25/2007
Ethylbenzene	LCS	95.6	96	(87-125)			100 ug/L	07/25/2007
	LCSD	90.8	91		5	(< 20)	100 ug/L	07/25/2007
P & M -Xylene	LCS	190	95	(87-125)			200 ug/L	07/25/2007
	LCSD	182	91		5	(< 20)	200 ug/L	07/25/2007
o-Xylene	LCS	97.0	97	(85-120)			100 ug/L	07/25/2007
	LCSD	92.8	93		4	(< 20)	100 ug/L	07/25/2007
Surrogates								
1,4-Difluorobenzene <surr>	LCS		100	(80-120)				07/25/2007
	LCSD		103		3			07/25/2007

Batch VFC8486
Method SW8021B
Instrument HP 5890 Series II PID+HECD VBA

SGS Ref.#	778802	Lab Control Sample	**Printed Date/Time**	07/31/2007	16:17
	778803	Lab Control Sample Duplicate	**Prep Batch**	VXX17012	
Client Name	Nortech		**Method**	SW5030B	
Project Name/#	06-1080		**Date**	07/25/2007	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1073511003, 1073511004, 1073511005, 1073511006, 1073511007

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department								
Benzene	LCS	101	101	(80-120)			100 ug/L	07/25/2007
	LCSD	99.5	100		1	(< 20)	100 ug/L	07/25/2007
Toluene	LCS	99.5	100	(80-120)			100 ug/L	07/25/2007
	LCSD	100	100		1	(< 20)	100 ug/L	07/25/2007
Ethylbenzene	LCS	101	101	(87-125)			100 ug/L	07/25/2007
	LCSD	101	101		0	(< 20)	100 ug/L	07/25/2007
P & M -Xylene	LCS	198	99	(87-125)			200 ug/L	07/25/2007
	LCSD	200	100		1	(< 20)	200 ug/L	07/25/2007
o-Xylene	LCS	99.9	100	(85-120)			100 ug/L	07/25/2007
	LCSD	101	101		1	(< 20)	100 ug/L	07/25/2007
Surrogates								
1,4-Difluorobenzene <surr>	LCS		98	(80-120)				07/25/2007
	LCSD		99		0			07/25/2007

Batch	VFC8487
Method	SW8021B
Instrument	HP 5890 Series II PID+FID VCA

SGS Ref.#	779098	Lab Control Sample	**Printed Date/Time**	07/31/2007	16:17
	779099	Lab Control Sample Duplicate	**Prep Batch**	XXX18341	
Client Name	Nortech		**Method**	SW3520C	
Project Name/#	06-1080		**Date**	07/26/2007	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1073511001, 1073511002, 1073511003, 1073511004, 1073511005, 1073511006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department								
Diesel Range Organics	LCS	0.980	98	(75-125)			1 mg/L	07/30/2007
	LCSD	1.15	115		16	(< 20)	1 mg/L	07/30/2007
Surrogates								
5a Androstane <surr>	LCS		101	(60-120)				07/30/2007
	LCSD		112		11			07/30/2007

Batch
Method AK102
Instrument HP 5890 Series II FID SV D F

10 13211

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Louisiana
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

www.us.sgs.com

064690

(1)

CLIENT: Nortech

CONTACT: Dave Miller — PHONE NO: (907) 452-5688

PROJECT: 06-1080 — SITE/PWSID#:

REPORTS TO: dmiller@nortechengr.com — E-MAIL: — FAX NO.: ( )

INVOICE TO: 2400 College Rd Fairbanks AK 99709 — QUOTE # — P.O. NUMBER 06-1080

SGS Reference:

PAGE ____ OF ____

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	Preservatives Used: HCl / HCl	Analysis Required (3): DRO / BTEX (8021)	REMARKS
1 A-E	SW4	7/23/07	1250	water	5	G	X	X	
	~~SW5~~ = NONE		NONE						
2	DW1		1220						
3	DW10		1220						
4	DW2		1445						
5	RW		1310						
6 ↓	DWW		1415						
7 A-C	TB				3				

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
	7/23/07	1600	Sunny Castleberry
Relinquished By: (2) Sunny Castleberry	7/23/07	1640	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	7/24/07	0900	Received By:

(4)

Shipping Carrier: hand — Samples Received Cold? (Circle) YES NO

Shipping Ticket No: — Temperature °C: ____ T ____

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557
1270 Greenbrier Street **Charleston, WV 25311** Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

SGS

SAMPLE RECEIPT FORM

SGS WO#: 1073511

Yes	No	NA		
	X		Are samples **RUSH**, priority, or *w/n 72 hrs.* of **hold time**?	**Due Date:** 8/6/07
		X	If yes have you done *e-mail notification*?	**Received Date:** 7/28/07
	X		Are samples *within 24 hrs.* of **hold time** or **due date**?	**Received Time:** 1600
		X	If yes, have you *spoken with* Supervisor?	Is **date/time conversion** necessary? ___
		X	Archiving bottles – if req., are they properly marked?	# of hours to AK Local Time: ___
		X	Are there any **problems**? PM Notified? ___	**Thermometer ID:** LongTimB
X			Were samples preserved correctly and pH verified?	
		X	If this is for PWS, provide **PWSID.** ___	
		X	Will courier charges apply?	
		X	Method of payment? ___	
X			Data package required? (Level: 1 / (2) / 3 / 4)	
			Notes: ___	
	X		Is this a DoD project? (USACE, Navy, AFCEE)	

Cooler ID	Temp Blank	Cooler Temp
1	4.6 °C	5.1 °C
2	none °C	7.2 °C
3SC	___ °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 / Carlile 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 ± 2°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 COC sealed in plastic bag & taped inside lid of 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 X performed by: ___

SGS

SGS WO#: 1073511

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: 7-24-07 0900

Is 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)
1	4.4	4.0			

CUSTODY SEALS INTACT: (YES) / NO

/ WHERE: 1 on front, 1 on back

COMPLETED BY: JCJ

**Temperature readings include thermometer correction factors.*

SGS

SAMPLE RECEIPT FORM (page 2)

SGS WO#: 1073511

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other	Container Type: AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	Preservative: None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	Other
1-6	A-C	1	BTEX 8021								18				X						X			X						
	D-E		DRO			12									X									X						
7	A-C	1	BTEX 8021		X						3				X						X			X						

Bottle Totals	1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other
	12					21			

Completed by: Date: 7/23/07

C:\Documents and Settings\scastleberry.FAIRBANKS\Local Settings\Temporary Internet Files\OLK10C\F004r15_SampleReceiptForm_pg12.doc

SGS Environmental CUSTODY SEAL WO# 3511

Signature: Sunny Castleberry Date/Time: 7/23/07 1640

TB = 4.4
C = 4.0

SGS Environmental CUSTODY SEAL WO# 3511

Signature: Sunny Castleberry Date/Time: 7/23/07 1640

SGS Environmental CUSTODY SEAL WO# 3508, 3509, 3510, 3512

Signature: Sunny Castleberry Date/Time: 7/23/07 1640

TB = 4.2
C = 0.5

SGS Environmental CUSTODY SEAL WO# 3508, 3509, 3510, 3512

Signature: Sunny Castleberry Date/Time: 7/23/07 1640

SGS Environmental Services
Alaska Division
Level II Laboratory Data Report

Project:	06-1080 Canaro
Client:	Nortech
SGS Work Order:	1073525

Released by: Stephen C. Ede
Alaska Division Technical Director
Stephen C. Ede
2007.08.02
11:08:26 -08'00'

Contents:

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

Case Narrative

Client	NORTECH	Nortech	**Printed Date/Time**	8/2/2007	10:47
Workorder	1073525	06-1080 Canaro			

Sample ID	Client Sample ID

Refer to the sample receipt form for information on sample condition.

Laboratory Analysis Report

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

Peter Beardsley
Nortech
2400 College Rd.
Fairbanks, AK 99709

Work Order:	1073525
	06-1080 Canaro
Client:	Nortech
Report Date:	August 02, 2007

Released by:

Alaska Division Technical Director

Stephen C. Ede
2007.08.02
11:08:42 -08'00'

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 Assurance Plan (QAP), which outlines this program, is available at your request.

The laboratory certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro) for ADEC and 001582 for NELAP (RCRA methods: 1010/1020, 1311, 6000/7000, 9040/9045, 9056, 9060, 9065, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

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

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 MDL.
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.#	1073525001	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	08/02/2007 10:47
Project Name/#	06-1080 Canaro	**Collected Date/Time**	07/26/2007 17:45
Client Sample ID	SW1	**Received Date/Time**	07/28/2007 10:30
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	9.82	0.500	ug/L	SW8021B	A		07/30/07	07/31/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/31/07	HM
Ethylbenzene	8.64	2.00	ug/L	SW8021B	A		07/30/07	07/31/07	HM
P & M -Xylene	32.1	2.00	ug/L	SW8021B	A		07/30/07	07/31/07	HM
o-Xylene	22.9	2.00	ug/L	SW8021B	A		07/30/07	07/31/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	93.1		%	SW8021B	A	80-120	07/30/07	07/31/07	HM
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.333	mg/L	AK102	D		07/30/07	07/31/07	JE
Surrogates									
5a Androstane <surr>	101		%	AK102	D	50-150	07/30/07	07/31/07	JE

SGS Ref.#	1073525002	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	08/02/2007 10:47
Project Name/#	06-1080 Canaro	**Collected Date/Time**	07/26/2007 17:30
Client Sample ID	SW2	**Received Date/Time**	07/28/2007 10:30
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	91.5		%	SW8021B	A	80-120	07/30/07	07/30/07	HM
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.324	mg/L	AK102	D		07/30/07	07/31/07	JE
Surrogates									
5a Androstane <surr>	107		%	AK102	D	50-150	07/30/07	07/31/07	JE

SGS Ref.#	1073525003	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	08/02/2007 10:47
Project Name/#	06-1080 Canaro	**Collected Date/Time**	07/26/2007 17:15
Client Sample ID	SW3	**Received Date/Time**	07/28/2007 10:30
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	92.6		%	SW8021B	A	80-120	07/30/07	07/30/07	HM
Semivolatile Organic Fuels Department									
Diesel Range Organics	ND	0.331	mg/L	AK102	D		07/30/07	07/31/07	JE
Surrogates									
5a Androstane <surr>	84.3		%	AK102	D	50-150	07/30/07	07/31/07	JE

SGS Ref.#	1073525004	**All Dates/Times are Alaska Standard Time**	
Client Name	Nortech	**Printed Date/Time**	08/02/2007 10:47
Project Name/#	06-1080 Canaro	**Collected Date/Time**	07/26/2007 0:00
Client Sample ID	Trip Blank	**Received Date/Time**	07/28/2007 10:30
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department									
Benzene	ND	0.500	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Toluene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Ethylbenzene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
P & M -Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
o-Xylene	ND	2.00	ug/L	SW8021B	A		07/30/07	07/30/07	HM
Surrogates									
1,4-Difluorobenzene <surr>	92.4		%	SW8021B	A	80-120	07/30/07	07/30/07	HM

SGS Ref.#	779815	Method Blank	**Printed Date/Time**		08/02/2007 10:47
Client Name	Nortech		**Prep**	**Batch**	XXX18355
Project Name/#	06-1080 Canaro			**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)			**Date**	07/30/2007

QC results affect the following production samples:

1073525001, 1073525002, 1073525003

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	0.300	0.0600	mg/L	07/31/07
Surrogates					
5a Androstane <surr>	92.7	60-120		%	07/31/07
Batch	XFC7494				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				

SGS Ref.#	779869	Method Blank	**Printed Date/Time**	08/02/2007 10:47
Client Name	Nortech		**Prep Batch**	VXX17039
Project Name/#	06-1080 Canaro		**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)		**Date**	07/30/2007

QC results affect the following production samples:

1073525001, 1073525002, 1073525003, 1073525004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Fuels Department					
Benzene	ND	0.500	0.150	ug/L	07/30/07
Toluene	ND	2.00	0.620	ug/L	07/30/07
Ethylbenzene	ND	2.00	0.620	ug/L	07/30/07
P & M -Xylene	ND	2.00	0.620	ug/L	07/30/07
o-Xylene	ND	2.00	0.620	ug/L	07/30/07
Surrogates					
1,4-Difluorobenzene <surr>	91.8	80-120		%	07/30/07
Batch	VFC8496				
Method	SW8021B				
Instrument	HP 5890 Series II PID+HECD VBA				

SGS Ref.#	779816	Lab Control Sample	**Printed Date/Time**	08/02/2007	10:47
	779817	Lab Control Sample Duplicate	**Prep Batch**	XXX18355	
Client Name	Nortech		**Method**	SW3520C	
Project Name/#	06-1080 Canaro		**Date**	07/30/2007	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1073525001, 1073525002, 1073525003

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department								
Diesel Range Organics	LCS	1.04	104	(75-125)			1 mg/L	07/31/2007
	LCSD	0.977	98		7	(< 20)	1 mg/L	07/31/2007
Surrogates								
5a Androstane <surr>	LCS		112	(60-120)				07/31/2007
	LCSD		93		19			07/31/2007

Batch XFC7494
Method AK102
Instrument HP 5890 Series II FID SV D F

SGS Ref.#	779870	Lab Control Sample	**Printed Date/Time**	08/02/2007	10:47
	779871	Lab Control Sample Duplicate	**Prep Batch**	VXX17039	
Client Name	Nortech		**Method**	SW5030B	
Project Name/#	06-1080 Canaro		**Date**	07/30/2007	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1073525001, 1073525002, 1073525003, 1073525004

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department								
Benzene	LCS	98.8	99	(80-120)			100 ug/L	07/30/2007
	LCSD	97.7	98		1	(< 20)	100 ug/L	07/30/2007
Toluene	LCS	98.5	99	(80-120)			100 ug/L	07/30/2007
	LCSD	98.0	98		1	(< 20)	100 ug/L	07/30/2007
Ethylbenzene	LCS	102	102	(87-125)			100 ug/L	07/30/2007
	LCSD	101	101		1	(< 20)	100 ug/L	07/30/2007
P & M -Xylene	LCS	205	102	(87-125)			200 ug/L	07/30/2007
	LCSD	201	100		2	(< 20)	200 ug/L	07/30/2007
o-Xylene	LCS	104	104	(85-120)			100 ug/L	07/30/2007
	LCSD	103	103		1	(< 20)	100 ug/L	07/30/2007
Surrogates								
1,4-Difluorobenzene <surr>	LCS		102	(80-120)				07/30/2007
	LCSD		103		1			07/30/2007

Batch	VFC8496
Method	SW8021B
Instrument	HP 5890 Series II PID+HECD VBA

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Location
- Alaska
- Louisiana
- New Jersey
- West Virginia

www

1073525

(1)

CLIENT: Nortech

CONTACT: Peter Beardsley PHONE NO:(907) 452 5688

PROJECT: 06-1080 Canoro SITE/PWSID#:

REPORTS TO: Nortech E-MAIL: FAX NO.:( )

INVOICE TO: Nortech QUOTE # P.O. NUMBER 06-1080

SGS Reference:

PAGE 7 OF 7

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP G=GRAB)	Preservatives Used		Analysis Required (3) DRO AK102	BTEX 8021	REMARKS
							HCl	HCl			
1 A-E	SW1	7/26/07	1745	W	5	G			X	X	
2	SW2		1730	W	5	G			X	X	
3	SW3		1715	W	5	G			X	X	
4 A-C	Trip Blank			W	3	G			~~X~~	X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Peter Beardsley	7/26/07	1205	Sunny Castleberry
Relinquished By: (2)	Date	Time	Received By:
Sunny Castleberry	7/27/07	1640	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:
	7/28/07	1030	

(4)

Shipping Carrier: hand

Shipping Ticket No:

Special Deliverable Requirements:

Samples Received Cold? (Circle) YES NO

Temperature °C: CT, 5.8°C, TB, 1.6°C

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

Page 12 of 16

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301

5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

1270 Greenbrier Street **Charleston, WV 25311** Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

SGS

SAMPLE RECEIPT FORM

SGS WO#: 1073525

Yes	No	NA		
	X		Are samples **RUSH**, priority, or *w/n 72 hrs.* of **hold time**?	**Due Date:** 8/10/07
		X	If yes have you done *e-mail notification*?	**Received Date:** 7/27/07
	X		Are samples *within 24 hrs.* of **hold time** or **due date**?	**Received Time:** 1205
		X	If yes, have you *spoken with* Supervisor?	Is **date/time conversion** necessary?
		X	Archiving bottles – if req., are they properly marked?	# of hours to AK Local Time:
		X	Are there any **problems**? PM Notified?	**Thermometer ID:** Longaten 710
X			Were samples preserved correctly and pH verified?	
		X	If this is for PWS, provide **PWSID.**	
		X	Will courier charges apply?	
		X	Method of payment?	
X			Data package required? (Level: 1 / 2 / 3 / 4)	
			Notes:	
	X		Is this a DoD project? (USACE, Navy, AFCEE)	

Cooler ID	Temp Blank	Cooler Temp
1	1.6 °C	5.8 °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 / Carlile 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 ± 2°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 COC sealed in plastic bag & taped inside lid of 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 X performed by:

SGS

SGS WO#: 1073525

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: 7-28-07 1030

Is 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)
1	6.4	2.8			

CUSTODY SEALS INTACT: (YES) / NO
#/ WHERE: Lonfront, Lonback

COMPLETED BY: JCG

**Temperature readings include thermometer correction factors.*

SGS

SAMPLE RECEIPT FORM (page 2)

SGS WO#: 1073525

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other	Container Type: AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	Preservative: None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	Other
1-3	A-C	1	BTEX 8021								9				X						X			X						
	D-E		DRO			6									X									X						
4	A-C	1	BTEX		X						3				X						X			X						
Bottle Totals						6					12																			

Completed by: Sunny Castleberry Date: 7/27/07

C:\Documents and Settings\scastleberry.FAIRBANKS\Local Settings\Temporary Internet Files\OLK10C\F004r15_SampleReceiptForm_pg12.doc

SGS Environmental

CUSTODY SEAL WO# 3525, 3526, 3527, 3528

Signature: Sunny Cattaneo Date/Time: 7/27/07 1640

TB=6.4

C=2.8

SGS Environmental

CUSTODY SEAL WO# 3525, 3526, 3527, 3528

Signature: Sunny Cattaneo Date/Time: 7/27/07 1640

Laboratory Data Review Checklist

1. Laboratory

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

   ☑ Yes ☐ No Comments:

   SGS

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   ☐ Yes ☐ No Comments:

   Not Applicable

2. Chain of Custody (COC)

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

   ☑ Yes ☐ No Comments:

   b. Correct analyses requested?

   ☑ Yes ☐ No Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

   ☑ Yes ☐ No Comments:

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

   ☑ Yes ☐ No Comments:

   MeOH

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

   ☑ Yes ☐ No Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No Comments:

Not Applicable

e. Data quality or usability affected? Explain.

Comments:

Not Applicable

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No Comments:

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

☑ Yes ☐ No Comments:

See below

c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

Not Applicable

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

Comments:

RRO-Surrogate outside QC goals (biased high) due to hydrocarbon interference (hot sample). This did not affect any samples associated with this project.

5. Samples Results

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

☑ Yes ☐ No Comments:

b. All applicable holding times met?

☑ Yes ☐ No Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No Comments:

Not Applicable

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

☑ Yes ☐ No Comments:

e. Data quality or usability affected? Explain.

Comments:

Not Applicable

6. QC Samples

a. Method Blank

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

☑ Yes ☐ No Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

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

☑ Yes ☐ No Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

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

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

☑ Yes ☐ No Comments:

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

☐ Yes ☐ No Comments:

Not Applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

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

☑ Yes ☐ No Comments:

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

Comments:

Not Applicable

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

☐ Yes ☐ No Comments:

Not Applicable

vii. Data quality or usability affected? Explain.

Comments:

Not Applicable

c. Surrogates – Organics Only

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

☑ Yes ☐ No Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No Comments:

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

☐ Yes ☐ No Comments:

Not Applicable

iv. Data quality or usability affected? Explain.

Comments:

Not Applicable

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

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

☑ Yes ☐ No Comments:

ii. All results less than PQL?

☑ Yes ☐ No Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Data quality or usability affected? Explain.

Comments:

Not Applicable

e. Field Duplicate

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

☐ Yes ☑ No Comments:

One field duplicate for 2 chain of custodies, but less than 10 project samples

ii. Submitted blind to lab?

☑ Yes ☐ No Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No Comments:

iv. Data quality or usability affected? Explain.

Comments:

Not Applicable

f. Decontamination or Equipment Blank (if applicable)

☐ Yes ☐ No ☑ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not Applicable

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

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

a. Defined and appropriate?

☐ Yes ☐ No Comments:

Not Applicable

Completed by: Ron Pratt

Title: Environmental Scientist

Date: September 10, 2007

CS Report Name: SGS reports 1073511 and 1073525

Report Date: July 31 & August 2, 2007

Consultant Firm: Nortech

Laboratory Name: SGS

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