

**Site Characterization
Anchorage Fish Hatchery
Anchorage, Alaska**

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Submitted To:
HDR Alaska, Inc
2525 C Street, Suite 305
Anchorage, Alaska 99503

By:
Shannon & Wilson, Inc.
5430 Fairbanks Street, Suite 3
Anchorage, Alaska 99518
Phone: 907-561-2120/Fax: 907-561-4483

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**SITE CHARACTERIZATION
ANCHORAGE FISH HATCHERY
ANCHORAGE, ALASKA**

1.0 INTRODUCTION

This report presents the results of Shannon & Wilson's site characterization activities conducted at the Anchorage Fish Hatchery located at 941 North Reeve Boulevard, Anchorage, Alaska. The project objective was to evaluate the potential environmental concerns identified in Shannon & Wilson's July 2007 report titled, *Phase I Environmental Site Assessment, Anchorage Fish Hatchery, Anchorage, Alaska*. The site characterization activities were conducted concurrently with the geotechnical drilling program and included collecting and testing soil, sediment, and water samples.

The site activities were performed in general accordance with 18 AAC 75 *Oil and Other Hazardous Substances* regulations (December 30, 2006) and our June 20 and September 21, 2007 proposals. Authorization to proceed with this project was provided by Mr. Dan Billman of HDR Alaska, Inc.

2.0 SITE AND PROJECT DESCRIPTION

The project site is located in the northeast $\frac{1}{4}$ of the southwest $\frac{1}{4}$ of Section 9, Township 13 North, Range 3 West, Seward Meridian, Alaska, according to the United States Geological Survey Anchorage A-8 NW quadrangle. The street address for the Property is 941 North Reeve Boulevard, Anchorage, Alaska. The project site is located at the former Elmendorf Air Force Base (EAFB) Power Plant Cooling Pond. A vicinity map and a site plan are included as Figures 1 and 2, respectively.

The Alaska Department of Fish and Game (ADF&G) plans to construct a new fish hatchery at the Cooling Pond area. As part of the preconstruction investigation, a Phase I Environmental Site Assessment (ESA) was conducted in July 2007. Potential environmental concerns documented in the Phase I ESA included:

- a JP-4 jet fuel release that occurred to the north of the Cooling Pond in 1964,
- former buildings at the property that predated the availability of natural gas or public sanitary sewer system service,
- potential presence of polychlorinated biphenyls (PCBs) associated with the former power plant, and
- impacted groundwater on the EAFB.

A geotechnical exploration and environmental site characterization program was initiated in August 2007 to evaluate the site's subsurface conditions and address the identified environmental concerns. Denali Drilling (Denali) provided the equipment and personnel to advance the borings and install the temporary wells. The analytical testing was conducted by SGS Environmental Services (SGS). Denali and SGS were subcontracted to Shannon & Wilson and are located in Anchorage, Alaska.

3.0 FIELD ACTIVITIES

Field activities for this project consisted of advancing soil borings, installing temporary monitoring wells, and collecting soil, sediment, and water samples. The site characterization activities were conducted concurrently with the geotechnical drilling program. This discussion is limited to environmental components of the project. Thus, boring and sample numbers are not sequential.

3.1 Initial Site Characterization

On August 14, 2007, one sediment and one surface water sample were collected from the seep area located near the northeast corner of the Cooling Pond. The sediment sample, designated Sample Sed1, was collected from approximately 0.3 foot bgs using a stainless steel spoon. The surface water sample, designated Sample SS1, was collected by submerging a clean, 1-liter amber jar in the seep water and transferring the water to the laboratory supplied jars. The approximate locations of the sediment and water samples collected from the seep area are shown in Photo 1 in Attachment 1 and Figure 2.

3.2 Soil Samples

Two of the 26 geotechnical borings were used to also collect environmental samples. Borings B20 and B25, were drilled on September 24 and 25, 2007, respectively. Boring B20 was advanced in the eastern portion of the Cooling Pond, and Boring B25 was advanced to the north-northeast of the Cooling Pond, south of North Post Road. Boring B20 was drilled with a track-mounted CME 850 mud rotary drill rig and advanced to 46.5 feet below ground surface (bgs). Borings B25 was advanced with a truck-mounted CME 55 drill rig equipped with a hollow-stem auger to a depth of 16.5 feet bgs. Approximate boring locations are shown on Figure 2.

Split-spoon samplers were used to collect soil samples at 5-foot intervals to the bottom of the borings. The samples were screened in the field using a photoionization detector (PID) and an ADEC-approved headspace screening technique. Based on PID readings and visual observations, one soil sample from each boring was submitted for chemical analysis. Boring logs are included in Shannon & Wilson's November 2007 report titled, *Geotechnical Report, Anchorage Fish Hatchery, Anchorage, Alaska*.

Two surface soil samples, designated Samples S11 and B26SS, were collected from the base of the central portion of the Cooling Pond and adjacent to Boring B26, respectively. The sample locations are shown on Figure 2. A 5-gallon bucket without a bottom was pressed through the sediment layer at the base of the Cooling Pond to prevent the sloughing of sediments during collection of Sample S11. After the sediment was removed from the bucket, a stainless steel spoon was used to collect Sample S11 from the freshly exposed soil at 1 foot bgs. Sample B26SS, which was collected adjacent to Boring B26, was recovered from 0.2-foot bgs using a stainless steel spoon. A hand shovel was used to excavate a shallow test pit to recover the surface soil sample. The number, depth, and classification of the samples are summarized in Table 1.

3.3 Temporary Wells

Two temporary wells, designated Wells TW1 and B25MW, were installed on August 23 and September 25, 2007. The wells were placed inside the auger string to the bottom of Borings TW1 and B25, respectively. The water was encountered at about 10 feet bgs in Boring B25 during drilling activities. Water was present at the base of the pond when Boring TW1 advanced. Each well was constructed of 2-inch nominal I.D. schedule 40 PVC pipe with threaded connections. The lower portion of each well casing was made up of a 5-foot section of PVC well screen with 0.010-inch slots, and the remainder of the each well casing was constructed of solid PVC piping. The wells were screened in shallow (Well B25MW) and deep locations (Well TW1) to characterize both the lighter and denser contaminants of concern. The screened section in Well B25MW was positioned from 10 to 15 feet bgs and the well screen in Well TW1 extended from 18.4 to 23.4 feet below the base of the pond. After collection of groundwater samples, the PVC well casings were removed and the borings were backfilled with drill cuttings. The temporary well locations are shown on Figure 2. A view of the drill rig during installation of Temporary Well TW1 is shown in Photo 2.

Groundwater samples were collected from Temporary Well TW1 and B25MW on August 23 and September 25, 2007, respectively. Static water levels were measured before sampling in each well using an electronic water level indicator. Water levels were measured at approximately 8 feet bgs in Well B25MW and 3 feet below the base of the Cooling Pond in Well TW1. Dedicated disposable bailers were used to purge the temporary wells and collect groundwater samples. Approximately 15 gallons of water were purged from Well TW1 prior to sampling. Well B25MW was purged dry after removal of about 1 gallon of water. The samples were transferred directly into the appropriate laboratory-supplied containers, and placed in chilled coolers for delivery to the project laboratory. The purge water generated from each well was discharged into the associated boring annulus during backfilling activities.

3.4 Cooling and Settling Pond Sediment Samples

After PCBs were identified in Sample Sed1 during the initial site characterization efforts, a sediment sampling program was implemented to evaluate the potential presence and concentrations of PCBs in both the Cooling Pond and the Settling Pond sediments. The samples from the Settling Pond sediments were collected because water and possibly sediments were transferred from the Cooling Pond to the Settling Pond.

As shown in Figure 2, one sediment sample was collected from each cell within the grid established in the Cooling Pond for the geotechnical drilling program. In addition, four sediment samples were collected from the Settling Pond, to the southwest of the Cooling Pond. Two samples were collected from the north shore of the Settling Pond, near the inlet culverts, and two from the south shore, near the outlet to Ship Creek.

The sediment samples from the Cooling Pond were collected using a manually-operated, 4-inch diameter bucket auger. The auger was advanced to depths ranging from 0.4 foot bgs to 1.7 feet bgs. The Settling Pond samples were collected using a stainless steel bowl dipped into the sediment below the water table. Excess water was drained and the sediment was transferred to the laboratory-supplied sampling containers using stainless steel sampling spoons. Approximate locations of the sediment samples are shown in Figure 2. Photo 3 depicts approximate locations of two Settling Pond samples. The sample descriptions are listed in Table 1.

4.0 LABORATORY ANALYSES

Under the sample numbering scheme used for this project, a typical analytical sample number is 01886-3-B20S2 for soil boring samples, 01886-3-P1 for sediment samples, and 01886-3-B25MW or TW1 for temporary well samples. For brevity in the report text, the '01886-3', which indicates the Shannon & Wilson job number, is omitted.

The analytical samples were submitted to SGS using chain of custody procedures and analyzed on a standard 7 to 10 day turnaround time. The samples were selectively analyzed for gasoline range organics (GRO) by Alaska Method (AK) 101; diesel range organics (DRO) by AK 102; residual range organics (RRO) by AK 103; volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260B; Resource Conservation and Recovery Act (RCRA) metals by EPA 6000/7000 series; and PCBs by EPA 8082.

For quality control purposes, one water duplicate sample, three soil duplicate samples, and five trip blanks (two soil and three water) were included in the sampling program. The field duplicate samples were tested for the same analytes as their associated project samples. The five trip blanks were analyzed for VOCs. One trip blank (WTB2) was also tested for GRO. The analytical soil, sediment, and groundwater results are summarized in Tables 2, 3, and 4, respectively, with the laboratory results included in Attachment 2.

5.0 SUBSURFACE CONDITIONS

Based on the geotechnical explorations, the subsurface conditions encountered beneath the silty surface sediments that ranged in thickness from approximately 0.5 to 5 feet in the Cooling Pond consist of three main soil units. First, soil encountered immediately below the soft, silty sediments in the base of the Cooling Pond is comprised of mixed and interbedded silts, sands, and gravels of the Ship Creek alluvium. Second, top of the Bootlegger Cove Formation clay was encountered at depths ranging from about 35 to 50 feet below the base of the pond, although isolated clay layers interbedded with silty sand and/or sandy silt were encountered above these depths. The clay within the Bootlegger Cove Formation was typically consistent and predictable until it transitioned to the third soil unit, Knik Sand, at depths ranging from 120 to 140 feet bgs.

Water was encountered in the borings advanced within the Cooling Pond and ranged from a few feet above base of the pond (as was evident by the water seep entering the pond at an elevation above the pond bottom in the northeast portion) to 7 feet bgs (across the southern half of the pond). Water was measured at 3.05 feet below the base of the pond in Well TW1 during sampling activities. Ship Creek dam is located near the northeast side of the pond. The water level at Ship Creek dam is approximately 8 to 10 feet higher than the base of the pond. We believe that this causes the water table to be higher than the base of the pond in that area, and is likely the cause of the seepage observed at the northeast portion of the pond. It is noted that water levels may fluctuate by more than several feet seasonally at the project site. A more detailed subsurface information is included in Shannon & Wilson's November 2007 Geotechnical Report.

6.0 DISCUSSION OF ANALYTICAL RESULTS

The analytical testing results of the soil, sediment, water, and quality control samples are presented in the following sections. The reported contaminant concentrations in the soil and water are compared to the cleanup levels listed in the Oil and Other Hazardous Substances Pollution Control Regulations (18 AAC 75, Sections 341 and 345). The soil criteria are based on the most stringent exposure pathway listed in Tables B1 and B2 for the "under 40-inch (precipitation) zone". Water cleanup levels are based on criteria listed in 18 AAC 75.345, Table C. The sediment criteria are based on the Threshold Effects Levels (TEL) listed in the National

Oceanic and Atmospheric Association (NOAA) Screening Quick Reference Tables (SQUIRT) (September 1999), or the ADEC's Method 2 soil cleanup levels for those compounds not listed in the SQUIRT tables.

6.1 Soil Samples

Five soil samples, including one field duplicate, were submitted for analytical testing. Petroleum hydrocarbon constituents were reported samples from three locations. GRO was reported in Sample B25S5 and its duplicate, Sample B25S6, at concentrations of 42.4 milligrams per kilograms (mg/kg) and 69.9 mg/kg, respectively. The reported GRO concentrations are less than the applicable cleanup criterion.

DRO levels ranged from 180 mg/kg in Sample S11 to 3,630 mg/kg in Sample B25S6. DRO concentrations detected in Samples B25S5/B25S6 and B26SS exceed the applicable cleanup level of 250 mg/kg.

Reported RRO concentrations are less than the cleanup level, with concentrations ranging from 531 mg/kg in Sample S11 to 3,770 mg/kg in Sample B26SS. VOCs constituents at concentrations less than the applicable cleanup criteria were detected in Sample Set B25S5/B25S6.

The soil samples did not contain detectable concentrations of PCBs. Except for arsenic and chromium concentrations, RCRA metals were not detected or do not exceed the applicable cleanup levels in the four samples tested for these analytes. The arsenic and chromium levels detected in the four samples exceed the applicable cleanup criteria. It is our opinion that the concentrations of arsenic and chromium in the samples are within the naturally occurring background levels documented in the Anchorage area soil.

6.2 Cooling and Settling Pond Sediment Samples

Twenty-one sediment samples, including two field duplicates, were collected from the Cooling and Settling Ponds. The sediment samples were tested for PCBs. In addition to PCBs, Sample Sed1 was also analyzed for GRO, DRO, RRO, VOCs, and RCRA metals. Except for the 0.930 mg/kg PCBs (Aroclor 1254) detected in Sample Sed1, PCBs were not detected in the sediment samples. The PCBs concentration reported in Sample Sed1 is less than the most stringent cleanup level of 1 mg/kg. The PCBs constituents Aroclors 1254 and 1260 are most frequently associated with transformer oils.

As summarized in Table 3, the remaining target analytes in Sample Sed1 were not detected or do not exceed the applicable cleanup levels except for arsenic and chromium. The 6.24 mg/kg arsenic and 38.3 mg/kg chromium concentration detected in Sample Sed1 exceed the applicable cleanup criteria. However, these concentrations considered to be within the naturally

occurring background levels documented in the Anchorage area soil. It is noted that the laboratory reporting limit for DRO (313 mg/kg) is greater than the applicable cleanup criterion (250 mg/kg) for this sample.

6.3 Water Samples

Four water samples, including one field duplicate, were collected from the water seep at northeast portion of the Cooling Pond and temporary wells installed at the site. DRO concentrations detected in Sample B25MW and its duplicate, designated B30MW, are the only reported analytes that exceed the applicable criterion of 1.5 mg/l. The duplicate sample set, Samples B25MW and B25MW, contained 38.6 mg/l and 69.7 mg/l DRO, respectively. As summarized in Table 4, the remaining analytes were either not detected, or were reported at concentrations less than the applicable cleanup levels. Note that the laboratory reporting limits for RRO in Samples B25MW (1.22 mg/L) and B30MW (5.95 mg/L) were greater than the applicable cleanup criterion.

6.4 Quality Assurance Summary

The project laboratory follows on-going quality assurance/quality control procedures to meet applicable ADEC data quality objectives (DQO). Internal laboratory controls to ensure data quality for sample batches generally include method blank, matrix spike/matrix spike duplicates (MS/MSD), and laboratory control sample/laboratory control sample duplicates (LCS/LCSD) to determine recovery rates, precision, and accuracy. If a DQO was not met, the project laboratory provides a report specific note identifying the problem in the Notes and Definitions section of their Laboratory Analysis Report (See Attachment 2). Shannon & Wilson reviewed the SGS data deliverables and completed an ADEC Laboratory Data Review Checklist for each work order (total of 5), which are included in Attachment 2. The results of the quality assurance review are described below for each applicable work order.

- Work Order 1074088: The temperature blank and cooler temperatures were outside the required range; however, the samples were collected within 1.5 to 2 hours of delivery to the laboratory. The laboratory reporting limit for DRO in Sample Sed1 is greater than the cleanup level; the actual DRO concentration in this sample is unknown below the reporting limit of 313 mg/kg. It is noted that the DRO result was not J-flagged as estimated value. The LCS/LCSD percent recovery for chloromethane and bromoform in water was biased high for Samples SS1 and WTB (trip blank). Neither chloromethane nor bromoform was detected in these samples. The method blank contained a chromium level greater than 0.5 times of the practical quantitation limit (PQL), but less than the PQL. The remaining DQOs were met and the data are considered acceptable for the intended use.

- Work Order 1074357: The laboratory note indicates that RRO concentration in water Sample TW1 may be biased high due to “carry over.” The RRO concentration in Sample TW1 was 0.752 mg/L, less than the applicable cleanup level of 1.1 mg/L. The remaining DQOs were met and the data are considered acceptable.
- Work Order 1075114: The temperature blank and cooler temperatures were outside the required range; however, the samples were only analyzed for PCBs and due to the non-volatile nature of PCBs the results should not be negatively affected. Relative percent differences (RPDs) for the duplicate sample sets submitted under this work order could not be calculated due to non-detectable concentrations of PCBs. The remaining DQOs were met and the data are considered usable.
- Work Order 1075115:
 - Sample B30MW was analyzed 3 minutes outside hold time.
 - The RRO detection limits for Samples B25MW (<1.22 mg/L) and B30MW (<5.95 mg/L) are greater than the applicable cleanup level of 1.1 mg/L RRO. As a result of the elevated detection limits, the actual RRO concentrations in these samples are unknown below the detection limits. The RRO results were not J-flagged as estimated value.
 - Concentrations of chromium (1.59 mg/kg) were detected in the metals method blank above the reporting limit of 0.400 mg/kg, potentially affected samples include Samples B25S5, B25S6, B20S2, and S11. The samples should not be affected because the chromium concentrations detected in these samples are consistent with typical background concentrations found in the Anchorage area soil, and are an order of magnitude greater than the method blank concentration.
 - The percent recovery for Aroclor 1016 in the LCS is outside the laboratory limits, potentially affecting Samples B25S5, B25S6, B20S2, and S11. Because concentrations of PCBs were not detected in these samples, the results are not affected.
 - GRO surrogate recoveries are biased high for Samples B25S5, B25S6, and B25MW and are biased low for Samples B20S2 and S11. Based on the laboratory notes, the high bias was due to matrix interference, and the low bias due to high moisture content in Samples B20S2 and S11. The recovery was adjusted for moisture content and meets the DQOs.
 - Except for n-Butylbenzene, the precision for the reported analytes in the soil duplicate Sample Set B25S5/B25S6 is within the DQOs. The precision for n-Butylbenzene is 64.8 percent. Also, the precision for GRO (102.6 percent) and DRO (57.4 percent) in the water Sample Set B25MW/B30MW is greater than the DQO for these compounds. The high precision for n-Butylbenzene in the soil

sample set and GRO and DRO in the water sample set is likely due to non-homogeneous distribution of these constituents in the sample matrix. Because most of the reported target analytes in the project and duplicate samples are comparable and the concentrations for the above referenced constituents in the sample sets are within 2 to 4 times of each other, we find the data acceptable for the intended use.

- Work Order 1075213: The laboratory DQOs were met for this work order and the data are considered acceptable.

The analytical data evaluation included a review of laboratory results for two soil trip blanks and three water trip blanks. One trip blank was in each cooler, accompanying the sample jars from the laboratory to the site during sampling activities and back to SGS. GRO or VOCs were not detected in the trip blanks, suggesting that contamination of the sample containers or samples did not occur during transport, handling, or storage processes of the project samples.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The site characterization activities consisted of advancing soil borings; installing temporary monitoring wells; and collecting soil samples, sediment samples, and water samples. The following conclusions are based on analytical results of the project samples:

- DRO concentrations greater than the applicable cleanup level were measured in soil samples from Boring B25 (8 to 9 feet bgs) and in the surface soil sample adjacent to Boring B26.
- Concentrations of DRO greater than the applicable cleanup level were detected in the water samples collected from Temporary Well B25MW, which was installed in Boring B25.
- Arsenic and chromium concentrations exceeding the applicable cleanup criteria were reported in the soil and sediment samples. However, the reported levels are considered to be within the naturally occurring background levels identified in the Anchorage area soil.
- PCBs were detected in one sediment sample near the northeast corner of the cooling pond. The concentration of 0.930 mg/kg in Sample Sed1 is less than the ADEC cleanup level of 1 mg/kg. PCBs were not detected in the other 18 primary sediment samples or the two field duplicates.

Based on these results, we recommend that a more comprehensive site assessment be conducted to further delineate the petroleum hydrocarbons identified in Boring B25 and in the vicinity of Boring B26. In accordance with ADEC regulations, Shannon & Wilson also recommends that a copy of this report be submitted to the ADEC.

8.0 CLOSURE/LIMITATIONS

This report was prepared for the exclusive use of our client and their representatives in the study of this site. The findings we have presented within this report are based on the limited research, sampling, and analyses that we conducted. They should not be construed as definite conclusions regarding the site's soil or groundwater. It is possible that our subsurface tests missed higher levels of contaminant constituents, although our intention was to sample areas likely to be impacted. As a result, the sampling and analysis performed can only provide you with our professional judgment as to the environmental characteristics of this site, and in no way guarantees that an agency or its staff will reach the same conclusions as Shannon & Wilson, Inc. The data presented in this report should be considered representative of the time of our site assessment. Changes in site conditions can occur over time, due to natural forces or human activity. 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.

Shannon & Wilson has prepared the attachments in Attachment 3, "Important Information About Your Geotechnical/Environmental Report," to assist you and others in understanding the use and limitations of our reports. You are advised that various state and federal agencies (ADEC, EPA, etc.) may require the reporting of this information. Shannon & Wilson does not assume the responsibility for reporting these findings and therefore has not, and will not, disclose the results of this study unless specifically authorized by you or required by law.

We appreciate this opportunity to be of service. Please call Mr. Matthew Henry, P.E. or the undersigned at (907) 561-2120 with questions or comments concerning the contents of this report.

Sincerely,

SHANNON & WILSON, INC.

Prepared by:



Jessica Busey
Environmental Scientist III

Reviewed by:



Haydar Turker
Principal Engineering Geologist

TABLE 1 - SAMPLE LOCATIONS AND DESCRIPTIONS

Sample Number	Date	Sample Location (See Figure 2)	Depth (feet)	Headspace (ppm) ^	Sample Classification
Soil Samples					
Boring B20					
B20S1	9/24/2007	Boring B20, Sample S1	0-1	0	Soft, gray SILT; wet; scattered organics
* B20S2	9/24/2007	Boring B20, Sample S2	5-6.5	0	Medium dense, gray, silty SAND; wet
B20S3	9/24/2007	Boring B20, Sample S3	7.5-9	0	Medium dense, gray, silty SAND; wet
B20S4	9/24/2007	Boring B20, Sample S4	10-11.5	0	Medium dense, gray, silty SAND; wet
B20S5	9/24/2007	Boring B20, Sample S5	15-16.5	0	Medium dense, gray, silty SAND; wet to moist
B20S6	9/24/2007	Boring B20, Sample S6	20-21.5	0	Medium dense, gray, silty SAND; wet
B20S7	9/24/2007	Boring B20, Sample S7	25-26.5	0	Medium dense, gray, silty SAND; wet
B20S8	9/24/2007	Boring B20, Sample S8	30-31.5	0	Dense, gray, silty SAND; wet
B20S9	9/24/2007	Boring B20, Sample S9	35-36.5	0	Medium dense, gray, silty SAND; wet
B20S10	9/24/2007	Boring B20, Sample S10	40-41.5	0	Medium dense, gray, silty SAND; wet
B20S11	9/24/2007	Boring B20, Sample S11	45-46.5	0	Medium stiff, gray SILT; wet
Boring B25					
B25S1	9/25/2007	Boring B25, Sample S1	0-2	0.5	Brown, slightly silty, sandy GRAVEL, trace of cobbles; moist
B25S2	9/25/2007	Boring B25, Sample S2	2.5-4	0.5	Medium dense, brown, slightly silty, sandy GRAVEL; moist
B25S3	9/25/2007	Boring B25, Sample S3	5-5.75	0.5	Hard, brown, sandy, gravelly SILT; moist
B25S4	9/25/2007	Boring B25, Sample S4	7.5-7.7	0.5	Hard, brown, sandy, gravelly SILT; moist
* B25S5	9/25/2007	Northeast of Cooling Pond along North Post Road	8-9	280	Gray, slightly sandy, gravelly SILT; moist; hydrocarbon odor
* B25S6	9/25/2007	Duplicate of Sample B25S5	8-9	280	Gray, slightly sandy, gravelly SILT; moist; hydrocarbon odor
B25S7	9/25/2007	Boring B25, Sample S7	10-11.5	7.6	Medium dense, gray, slightly sandy, gravelly SILT; moist
B25S8	9/25/2007	Boring B25, Sample S8	15-16.5	15	Medium dense, gray, silty SAND; wet
Surface Soil Samples					
* S11	9/24/2007	Near Center of Cooling Pond	1.0	-	Brown to gray, sandy gravel; moist
* B26SS	9/27/2007	Near surface soil, adjacent to Boring B26	0.2	-	Brown, silty, sandy GRAVEL; moist

KEY DESCRIPTION

- * Sample analyzed by the project laboratory (See Tables 2, 3, and 4)
- Measurement not recorded or not applicable
- ppm parts per million
- ^ Field screening instrument was a ThermoInstruments 580B photoionization detector (PID)

TABLE 1 - SAMPLE LOCATIONS AND DESCRIPTIONS

Sample Number	Date	Sample Location (See Figure 2)	Depth (feet)	Headspace (ppm) ^	Sample Classification
<u>Cooling Pond Sediment Samples</u>					
* Sed1	8/14/2007	Along north embankment of Cooling Pond near seep	0.3	-	Gray, silty SAND; wet
* P1	9/25/2007	Northwest portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P2	9/25/2007	Northwest portion of Cooling Pond	0.6-0.8	-	Brown, sandy SILT; wet
* P3	9/25/2007	North-central portion of Cooling Pond	0.7-0.9	-	Brown, sandy SILT; wet
* P4	9/25/2007	North-central portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P5	9/25/2007	North-central portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P6	9/25/2007	Northeast portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P7	9/25/2007	Northeast portion of Cooling Pond	0.4-0.6	-	Brown, sandy SILT; wet
* P8	9/25/2007	Southwest portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P9	9/25/2007	Southwest portion of Cooling Pond	0.6-0.8	-	Brown, sandy SILT; wet
* P10	9/25/2007	South-central portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P11	9/25/2007	South-central portion of Cooling Pond	1.5-1.7	-	Brown, sandy SILT; wet
* P12	9/25/2007	South-central portion of Cooling Pond	0.5-0.7	-	Brown, sandy SILT; wet
* P13	9/25/2007	Southeast portion of Cooling Pond	1.0-1.2	-	Brown, sandy SILT; wet
* P14	9/25/2007	Southeast portion of Cooling Pond	0.7-0.9	-	Brown, sandy SILT; wet
* P15	9/25/2007	Duplicate of Sample P10	0.5-0.7	-	Brown, sandy SILT; wet
* P16	9/25/2007	Duplicate of Sample P1	0.5-0.7	-	Brown, sandy SILT; wet
<u>Settling Pond Sediment Samples</u>					
* P21	9/25/2007	Northern portion of Settling Pond	0.5-0.7	-	Brown, silty SAND; wet
* P22	9/25/2007	Northern portion of Settling Pond	0.5-0.7	-	Brown, silty SAND; wet
* P23	9/25/2007	Western portion of Settling Pond	0.5-0.7	-	Brown, silty SAND; wet
* P24	9/25/2007	Southern portion of Settling Pond	0.5-0.7	-	Brown, silty SAND; wet
<u>Water Samples</u>					
* SS1	8/14/2007	Along north embankment of Cooling Pond at seep	0.5	-	Water
* TW1	8/23/2007	Temporary Well TW1	3.05	-	Water
* B25MW	9/25/2007	Temporary Well B25MW - installed in Boring B25	7.98	-	Water
* B30MW	9/25/2007	Duplicate of Sample B25MW	7.98	-	Water

KEY DESCRIPTION

- * Sample analyzed by the project laboratory (See Tables 2, 3, and 4)
 - Measurement not recorded or not applicable
 ppm parts per million
 ^ Field screening instrument was a ThermoInstruments 580B photoionization detector (PID)

TABLE 1 - SAMPLE LOCATIONS AND DESCRIPTIONS

Sample Number	Date	Sample Location (See Figure 2)	Depth (feet)	Headspace (ppm) ^	Sample Classification
Quality Control					
* STB	8/14/2007	Soil Trip Blank	-	-	Ottawa sand with methanol added in the laboratory
* TBS	9/24/2007	Soil Trip Blank	-	-	Ottawa sand with methanol added in the laboratory
* WTB	8/14/2007	Water Trip Blank	-	-	Organic-free water blank prepared in the laboratory
* WTB2	8/23/2007	Water Trip Blank	-	-	Organic-free water blank prepared in the laboratory
* TBW	9/25/2007	Water Trip Blank	-	-	Organic-free water blank prepared in the laboratory

KEY	DESCRIPTION
-----	-------------

*	Sample analyzed by the project laboratory (See Tables 2, 3, and 4)
-	Measurement not recorded or not applicable
ppm	parts per million
^	Field screening instrument was a ThermoInstruments 580B photoionization detector (PID)

TABLE 2 - SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

Parameter Tested	Method*	Cleanup Level (mg/kg)**	Sample Number^ and Collection Depth in Feet (See Table 1, Figure 2, and Attachment 2)						
			Soil Samples					Quality Control	
			B20S2 5-6.5	B25S5 8-9	B25S6~ 8-9	B26SS 0.2	S11 1.0	STB 8/14/2007	TBS 9/24/2007
PID Headspace Reading (ppm)	OVM 580B	-	0.0	280	280	-	-	-	-
Percent Solids	SM20 2540G	-	81.7	87.7	93.2	97.5	56.9	100	100
Gasoline Range Organics (GRO) - mg/kg	AK 101	300	<1.36	42.4	69.9	-	<5.09	-	-
Diesel Range Organics (DRO) - mg/kg	AK102	250	<24.0	2,790	3,630	994	180	-	-
Residual Range Organics (RRO) - mg/kg	AK 103	10,000	<24.0	115	101	3,770	531	-	-
Aromatic Volatile Organics (BTEX)									
Benzene - mg/kg	EPA 8260B	0.02	<0.00706	<0.0103	<0.0110	<0.0165	<0.0265	<0.0131	<0.0129
Toluene - mg/kg	EPA 8260B	5.4	<0.0271	<0.0395	<0.0422	<0.0634	<0.102	<0.0506	<0.0497
Ethylbenzene - mg/kg	EPA 8260B	5.5	<0.0136	<0.0198	<0.0211	<0.0317	<0.0509	<0.0253	<0.0248
Xylenes - mg/kg	EPA 8260B	78	<0.0543	<0.0791	<0.0843	<0.127	<0.204	<0.101	<0.0993
Volatile Organics Compounds (VOCs)									
1,2,4-Trimethylbenzene - mg/kg	EPA 8260B	95.2	<0.0136	0.238	0.194	<0.0317	<0.0509	<0.0253	<0.0248
1,3,5-Trimethylbenzene - mg/kg	EPA 8260B	25	<0.0136	0.0585	0.0369	<0.0317	<0.0509	<0.0253	<0.0248
4-Isopropyltoluene - mg/kg	EPA 8260B	-	<0.0136	0.0949	0.115	<0.0317	<0.0509	<0.0253	<0.0248
Isopropylbenzene - mg/kg	EPA 8260B	227	<0.0136	0.0206	<0.0211	<0.0317	<0.0509	<0.0253	<0.0248
n-Butylbenzene - mg/kg	EPA 8260B	-	<0.0136	0.0642	0.0101	<0.0317	<0.0509	<0.0253	<0.0248
n-Propylbenzene - mg/kg	EPA 8260B	-	<0.0136	0.0342	0.0346	<0.0317	<0.0509	<0.0253	<0.0248
sec-Butylbenzene - mg/kg	EPA 8260B	-	<0.0136	0.0722	<0.0211	<0.0317	<0.0509	<0.0253	<0.0248
Other VOCs - mg/kg	EPA 8260B	Various	ND	ND	ND	ND	ND	ND	ND
RCRA Metals									
Arsenic - mg/kg	SW 6020	2	2.32	5.16	5.25	-	7.96	-	-
Barium - mg/kg	SW 6020	1,100	47.8	79.7	73.0	-	187	-	-
Cadmium - mg/kg	SW 6020	5	<0.239	0.284	0.301	-	0.599	-	-
Chromium - mg/kg	SW 6020	26	36.3	53.5	48.4	-	47.1	-	-
Mercury - mg/kg	SW 7471A	1.4	<0.0483	0.0595	0.0524	-	0.147	-	-
Lead - mg/kg	SW 6020	400	3.53	5.85	5.44	-	24.6	-	-
Selenium - mg/kg	SW 6020	3.5	<0.598	<0.563	<0.535	-	1.39	-	-
Silver - mg/kg	SW 6020	21	<0.120	<0.113	<0.107	-	<0.175	-	-
Polychlorinated Biphenyls (PCBs)									
Aroclor - 1254 - mg/kg	SW 8082	1	<0.0609	<0.056	<0.0529	<0.0731	<0.0876	-	-
Other PCBs - mg/kg	SW 8082	1	ND	ND	ND	ND	ND	-	-

KEY DESCRIPTION

^	Sample numbers proceeded by "01886-3" on Chain of Custody form
*	See Attachment 2 for compounds tested, methods, and laboratory reporting limits
**	Soil cleanup level is the most stringent standard listed in Table B1 or B2, 18 AAC 75, for the "under 40 inches (precipitation) zone" (December 2006)
2,790	Analyte exceeds applicable cleanup level
42.4	Analyte detected
~	Duplicate of preceeding sample
<1.36	Analyte not detected; laboratory reporting limit of 1.36 mg/kg
ND	Analyte not detected; various lab detection limits
-	Not applicable or sample not tested for this analyte
ppm	Parts per million
mg/kg	Milligram per kilogram

TABLE 3 - SUMMARY OF SEDIMENT SAMPLE ANALYTICAL RESULTS

Parameter Tested	Method*	Cleanup Level (mg/kg)**	Sample Number^ and Collection Depth in Feet (See Table 1, Figure 2, and Attachment 2)						
			Cooling Pond Samples						
			Sed1 0.3	P1 0.5-0.7	P16~ 0.5-0.7	P2 0.6-0.8	P3 0.7-0.9	P4 0.5-0.7	P5 0.5-0.7
Percent Solids	SM20 2540G	-	53.6	58.4	51.1	78.4	60.4	59.2	51.0
Gasoline Range Organics (GRO) - mg/kg	AK 101	300	<3.31	-	-	-	-	-	-
Diesel Range Organics (DRO) - mg/kg	AK102	250	< 313	-	-	-	-	-	-
Residual Range Organics (RRO) - mg/kg	AK 103	10,000	321	-	-	-	-	-	-
Aromatic Volatile Organics (BTEX)									
Benzene - mg/kg	EPA 8260B	0.02	<0.0172	-	-	-	-	-	-
Toluene - mg/kg	EPA 8260B	5.4	<0.0662	-	-	-	-	-	-
Ethylbenzene - mg/kg	EPA 8260B	5.5	<0.0331	-	-	-	-	-	-
Xylenes - mg/kg	EPA 8260B	78	<0.132	-	-	-	-	-	-
Volatile Organics Compounds (VOCs)									
Other VOCs - mg/kg	EPA 8260B	Various	ND	-	-	-	-	-	-
RCRA Metals									
Arsenic - mg/kg	SW 6020	5.9	6.24	-	-	-	-	-	-
Barium - mg/kg	SW 6020	1,100	108	-	-	-	-	-	-
Cadmium - mg/kg	SW 6020	0.598	<0.356	-	-	-	-	-	-
Chromium - mg/kg	SW 6020	37.3	38.3	-	-	-	-	-	-
Mercury - mg/kg	SW 7471A	0.174	0.307	-	-	-	-	-	-
Lead - mg/kg	SW 6020	35	9.76	-	-	-	-	-	-
Selenium - mg/kg	SW 6020	3.5	<0.890	-	-	-	-	-	-
Silver - mg/kg	SW 6020	21	0.364	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)									
Aroclor - 1254 - mg/kg	SW 8082	1	0.930	<0.0838	<0.0959	<0.0633	<0.0817	<0.0843	<0.0961
Other PCBs - mg/kg	SW 8082	1	ND	ND	ND	ND	ND	ND	ND

KEY	DESCRIPTION
-----	-------------

^	Sample numbers proceeded by "01886-3" on Chain of Custody form
*	See Attachment 2 for compounds tested, methods, and laboratory reporting limits
**	Threshold Effects Levels (TEL) listed in the NOAA Screening Quick Reference Tables (SQUIRT), September 1999. Criteria for compounds that do not have screening levels listed in the SQUIRT tables are the most stringent ADEC Method 2 soil cleanup levels listed in Table B1 or B2, 18 AAC 75, for the "under 40 inches (precipitation) zone"
6.24	Analyte exceeds applicable cleanup level
~	Duplicate of preceeding sample
<3.31	Analyte not detected; laboratory reporting limit of 3.31 mg/kg
ND	Analyte not detected; various lab detection limits
-	Not applicable or sample not tested for this analyte
ppm	Parts per million
mg/kg	Milligram per kilogram
< 313	Analyte not detected; laboratory reporting exceeds applicable cleanup level

TABLE 3 - SUMMARY OF SEDIMENT SAMPLE ANALYTICAL RESULTS

		Sample Number^ and Collection Depth in Feet (See Table 1, Figure 2, and Attachment 2)								
		Cleanup Level (mg/kg)**	Cooling Pond Samples							
Parameter Tested	Method*		P6 0.5-0.7	P7 0.4-0.6	P8 0.5-0.7	P9 0.6-0.8	P10 0.5-0.7	P15~ 0.5-0.7	P11 1.5-1.7	
Percent Solids	SM20 2540G	-	53.8	42.4	68.8	66.6	49.5	48.4	63.3	
Polychlorinated Biphenyls (PCBs)										
Aroclor - 1254 - mg/kg	SW 8082	1	<0.0915	<0.117	<0.0720	<0.0735	<0.101	<0.102	<0.0777	
Other PCBs - mg/kg	SW 8082	1	ND	ND	ND	ND	ND	ND	ND	

		Sample Number^ and Collection Depth in Feet (See Table 1, Figure 2, and Appendix B)								
		Cleanup Level (mg/kg)**	Cooling Pond Samples			Settling Pond Samples				QC
Parameter Tested	Method*		P12 0.5-0.7	P13 1.0-1.2	P14 0.7-0.9	P21 0.5-0.7	P22 0.5-0.7	P23 0.5-0.7	P24 0.5-0.7	STB 8/14/2007
Percent Solids	SM20 2540G	-	60.0	73.5	52.7	58.6	62.9	42.8	41.6	100
Aromatic Volatile Organics (BTEX)										
Benzene - mg/kg	EPA 8260B	0.02	-	-	-	-	-	-	-	<0.0131
Toluene - mg/kg	EPA 8260B	4.8	-	-	-	-	-	-	-	<0.0506
Ethylbenzene - mg/kg	EPA 8260B	5	-	-	-	-	-	-	-	<0.0253
Xylenes - mg/kg	EPA 8260B	69	-	-	-	-	-	-	-	<0.101
Volatile Organics Compounds (VOCs)										
Other VOCs - mg/kg	EPA 8260B	Various	-	-	-	-	-	-	-	ND
Polychlorinated Biphenyls (PCBs)										
Aroclor - 1254 - mg/kg	SW 8082	1	<0.0822	<0.0674	<0.0948	<0.0851	<0.0794	<0.116	<0.118	-
Other PCBs - mg/kg	SW 8082	1	ND	ND	ND	ND	ND	ND	ND	-

KEY DESCRIPTION

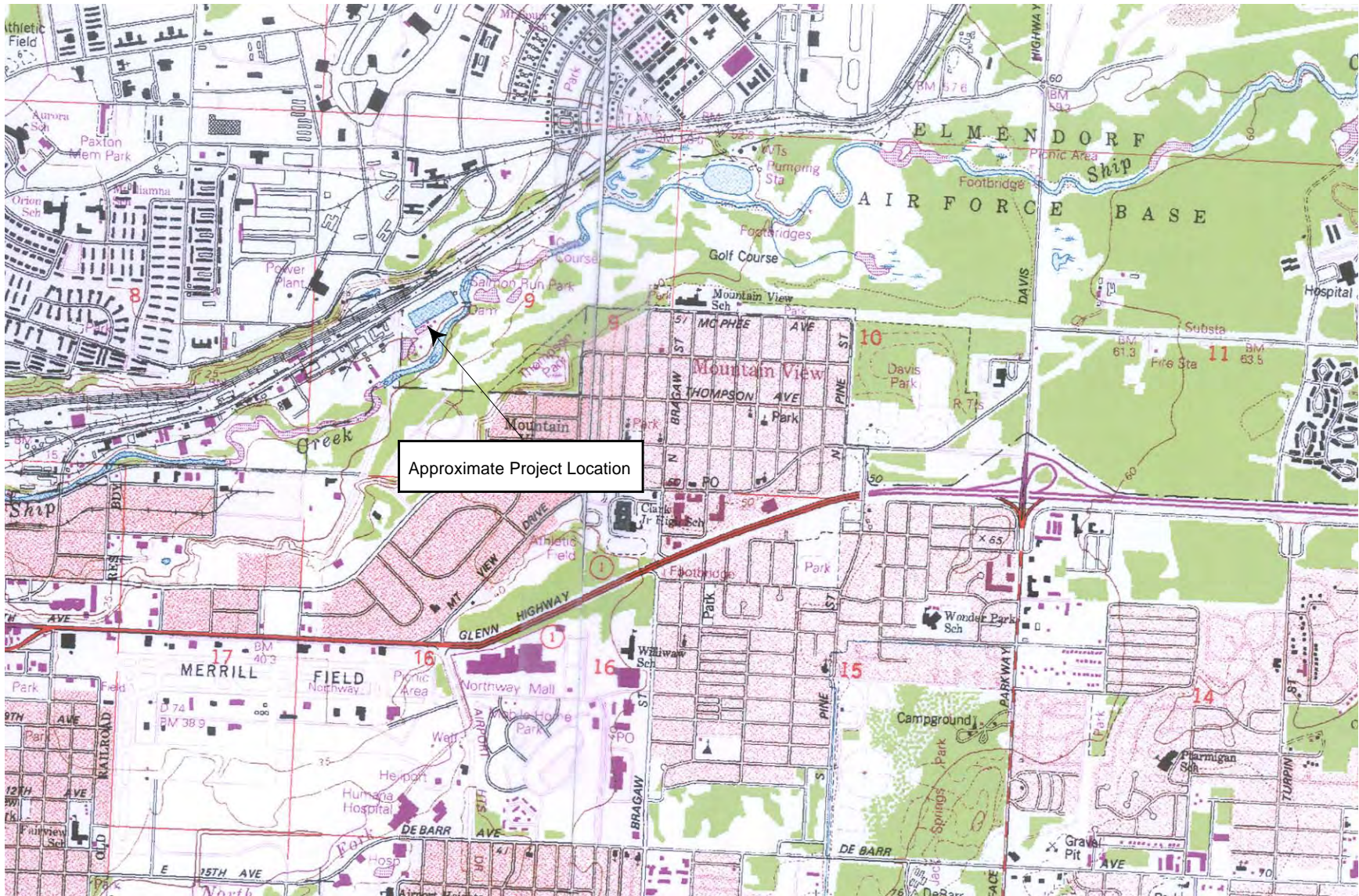
^	Sample numbers proceeded by "01886-3" on Chain of Custody form
*	See Attachment 2 for compounds tested, methods, and laboratory reporting limits
**	Threshold Effects Levels (TEL) listed in the NOAA Screening Quick Reference Tables (SQUIRT), September 1999. Criteria for compounds that do not have screening levels listed in the SQUIRT tables are the most stringent ADEC Method 2 soil cleanup levels listed in Table B1 or B2, 18 AAC 75, for the "under 40 inches (precipitation) zone"
6.24	Analyte exceeds applicable cleanup level
~	Duplicate of preceeding sample
<3.31	Analyte not detected; laboratory reporting limit of 3.31 mg/kg
ND	Analyte not detected; various lab detection limits
-	Not applicable or sample not tested for this analyte
ppm	Parts per million
mg/kg	Milligram per kilogram
<313	Analyte not detected; laboratory reporting exceeds applicable cleanup level
QC	Quality Control

TABLE 4 - SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS

Parameter Tested	Method*	Cleanup Level (mg/l)**	Sample Number^ and Collection Depth in Feet (See Table 1, Figure 2, and Attachment 2)						
			Temporary Wells			Seep	Quality Control		
			TW1 3.05	B25MW 7.98	B30MW~ 7.98	SS1 0.5	WTB 8/14/2007	WTB2 8/23/2007	TBW 9/25/2007
Gasoline Range Organics (GRO) - mg/l	AK 101	1.3	<0.100	0.317	0.102	<0.100	-	<0.100	-
Diesel Range Organics (DRO) - mg/l	AK102	1.5	<0.314	38.6	69.7	0.383	-	-	-
Residual Range Organics (RRO) - mg/l	AK 103	1.1	0.752	<1.22	<5.95	<0.500	-	-	-
Aromatic Volatile Organics (BTEX)									
Benzene - mg/l	EPA 8260B	0.005	<0.000400	<0.00400	<0.00200	<0.000400	<0.000400	<0.000400	<0.000400
Toluene - mg/l	EPA 8260B	1.0	<0.00100	<0.0100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100
Ethylbenzene - mg/l	EPA 8260B	0.7	<0.00100	<0.0100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100
Xylenes - mg/l	EPA 8260B	10	<0.00200	<0.0200	<0.0100	<0.00200	<0.00200	<0.00200	<0.00200
Volatile Organics Compounds (VOCs)									
Other VOC analytes - mg/l	EPA 8260B	various	ND	ND	ND	ND	ND	ND	ND
RCRA Metals									
Arsenic - mg/l	SW 6020	0.05	-	-	-	<0.010	-	-	-
Barium - mg/l	SW 6020	2.0	-	-	-	0.105	-	-	-
Cadmium - mg/l	SW 6020	0.005	-	-	-	<0.002	-	-	-
Chromium - mg/l	SW 6020	0.1	-	-	-	0.0138	-	-	-
Lead - mg/l	SW 6020	0.015	-	-	-	0.00511	-	-	-
Mercury - mg/l	SW 7471A	0.002	-	-	-	<0.0002	-	-	-
Selenium - mg/l	SW 6020	0.05	-	-	-	<0.010	-	-	-
Silver - mg/l	SW 6020	0.18	-	-	-	<0.002	-	-	-
Polychlorinated Biphenyls (PCBs) - mg/l	SW 8082	0.0005	-	-	-	<0.00013	-	-	-

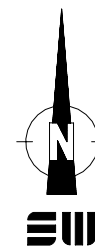
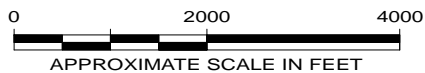
KEY DESCRIPTION

^	Sample number is preceded by "01886-3" on Chanin of Custody form
*	See Attachment 2 for compounds tested, methods, and laboratory reporting limits
**	Groundwater cleanup levels are listed in Table C, 18 AAC 75.345 (December 2006)
38.6	Analyte exceeds applicable cleanup level
<1.22	Analyte not detected; laboratory reporting exceeds applicable cleanup level
ND	Not Detected
<0.1	Analyte not detected; laboratory reporting limit of 0.1 mg/L
-	Not applicable or sample not tested for this analyte
mg/l	Milligrams per liter
~	Duplicate of preceeding sample



Approximate Project Location

Elevation in Meters
 Contour Interval 20 Meters
 Taken from Anchorage A-8 NW
 U.S. Geological Survey Quadrangle



Anchorage Fish Hatchery
 Anchorage, Alaska

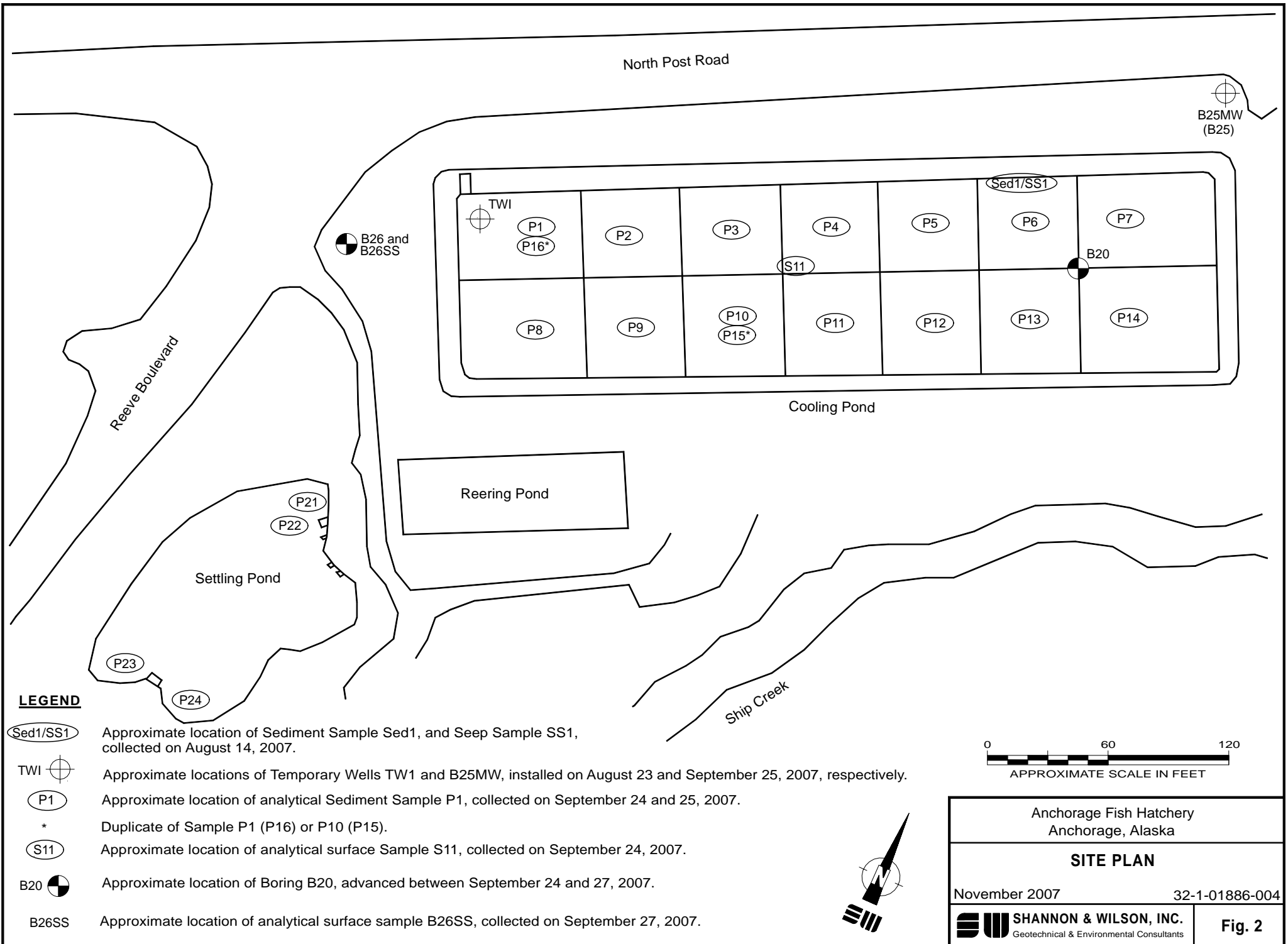
VICINITY MAP

November 2007

32-1-01886-004

SW SHANNON & WILSON, INC.
 Geotechnical & Environmental Consultants

Fig. 1



LEGEND

Sed1/SS1

Approximate location of Sediment Sample Sed1, and Seep Sample SS1, collected on August 14, 2007.

TW1

Approximate locations of Temporary Wells TW1 and B25MW, installed on August 23 and September 25, 2007, respectively.

P1

Approximate location of analytical Sediment Sample P1, collected on September 24 and 25, 2007.

*

Duplicate of Sample P1 (P16) or P10 (P15).

S11

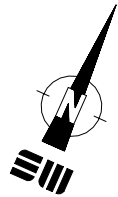
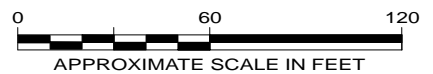
Approximate location of analytical surface Sample S11, collected on September 24, 2007.

B20

Approximate location of Boring B20, advanced between September 24 and 27, 2007.

B26SS

Approximate location of analytical surface sample B26SS, collected on September 27, 2007.



Anchorage Fish Hatchery Anchorage, Alaska	
SITE PLAN	
November 2007	32-1-01886-004
SHANNON & WILSON, INC. <small>Geotechnical & Environmental Consultants</small>	
Fig. 2	

ATTACHMENT 1
SITE PHOTOGRAPHS

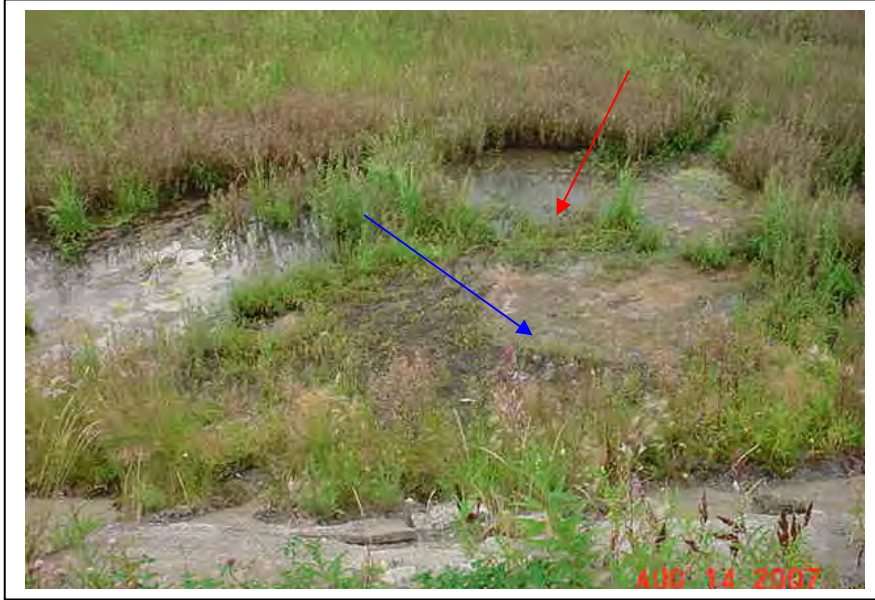


Photo 1: Approximate locations of Sample SS1 (red arrow) and Sample Sed1 (blue arrow); looking south (August 14, 2007).



Photo 2: A view of the drill rig while installing Temporary Well TW1; looking east (August 23, 2007).

Anchorage Fish Hatchery
Anchorage, Alaska

PHOTOS 1 AND 2

November 2007

32-1-01886-004



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Geotechnical & Environmental Consultants

1-1

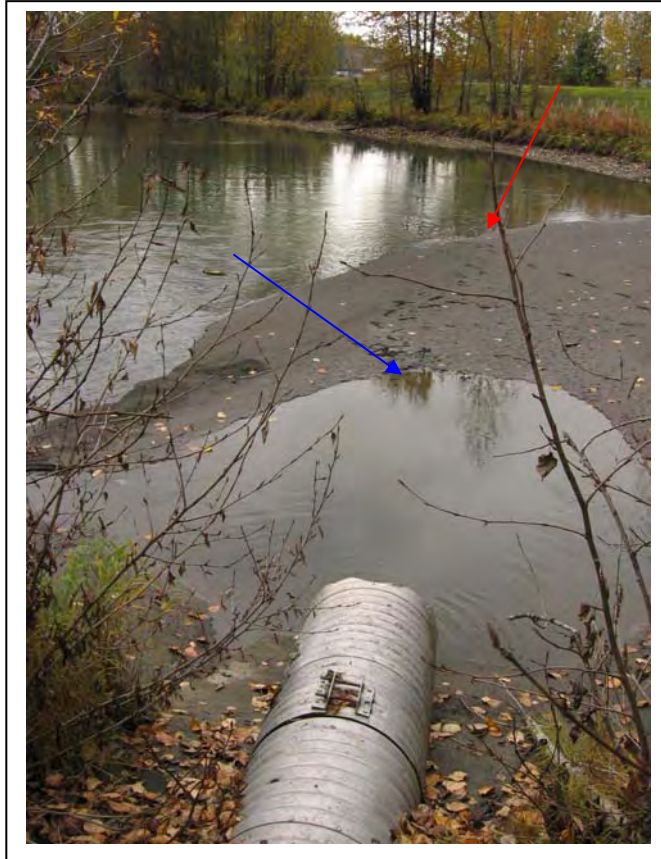



Photo 3: Approximate locations of sediment Samples P21 (blue arrow) and P22 (red arrow) collected from the Settling Pond; looking southwest (September 25, 2007).

Anchorage Fish Hatcher Anchorage, Alaska	
PHOTO 3	
November 2007	32-1-01886-004
 SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	1-2

ATTACHMENT 2

RESULTS OF ANALYTICAL TESTING BY

SGS ENVIRONMENTAL SERVICES

OF ANCHORAGE, ALASKA

AND

ADEC LABORATORY DATA REVIEW CHECKLIST



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 32-1-01886 Anch Hatchery
Client: Shannon & Wilson Inc.
SGS Work Order: 1074088

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt 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.



CASE NARRATIVE

Print Date: 9/7/2007

Client Name: Shannon & Wilson Inc.
Project Name: 32-1-01886 Anch Hatchery
Workorder No.: 1074088

Sample Comments

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

<u>Lab Sample ID</u>	<u>Sample Type</u>	<u>Client Sample ID</u>
1074088001	PS	01886-SS1
	AK102 - Unknown hydrocarbon with several peaks is present.	
1074088002	PS	01886-Sed 1
	AK103 - Unknown hydrocarbon with several peaks is present. AK102 - DRO analyzed at dilution due to dark color of extract.	
782915	LCS	LCS for HBN 189971 [VXX/17115]
	8260 - Laboratory control sample (LCS) recoveries for chloromethane and bromoform do not meet QC criteria (biased high). These analytes were not detected in the associated samples.	
782916	LCSD	LCSD for HBN 189971 [VXX/17115]
	8260 - Laboratory control sample duplicate (LCSD) recoveries for chloromethane and bromoform do not meet QC criteria (biased high). These analytes were not detected in the associated samples.	
782922	CCV	CCV for HBN 189974 (VMS/9278)
	8260 - Continuing calibration verification (CCV) recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected in the associated samples.	
783840	CCV	CCV for HBN 190130 (VMS/9280)
	8260 - Continuing calibration verification (CCV) recoveries for dichlorodifluoromethane and cis-1,2-dichloroethene do not meet QC criteria (biased high). These analytes are not detected in the associated samples.	
784141	MS	KGF 41-7-002-SS(1074044002MS)
	6020 - MS/MSD recovery for barium was outside of acceptance criteria. Post-digestion spike was successful.	
784142	MSD	KGF 41-7-002-SS(1074044002MS)
	6020 - MS/MSD recovery for barium was outside of acceptance criteria. Post-digestion spike was successful.	
784645	MB	MB for HBN 190287 [MXX/19366]
	6020 -Chromium was detected in the method blank greater than 1/2 of the PQL but less than PQL.	
784647	MS	CC-8 061,064,062(1074182003MS)
	6020 -Iron MS recovery was outside of acceptance criteria. Post digestion spike was successful.	



Laboratory Analytical Report

Client: **Shannon & Wilson Inc.**
5430 Fairbanks St., Ste. 3
Anchorage, AK 99518

Attn: **Bill Burgess**
T: F:

Project: **32-1-01886 Anch Hatchery**
Workorder No.: **1074088**

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Barbara Hager
Barbara.Hager@sgs.com
Project Manager



Enclosed are the analytical results associated with this 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 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.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control 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
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard

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



SAMPLE SUMMARY

Print Date: 9/7/2007

Client Name: Shannon & Wilson Inc.
Project Name: 32-1-01886 Anch Hatchery
Workorder No.: 1074088

Analytical Methods

<u>Method Description</u>	<u>Analytical Method</u>
Diesel/Residual Range Organics	AK102
Diesel/Residual Range Organics	AK103
Diesel/Residual Range Organics Water	AK102
Diesel/Residual Range Organics Water	AK103
Gasoline Range Organics (S)	AK101
Gasoline Range Organics (W)	AK101
Mercury 7470	SW7470A/E245.1
Mercury 7471	SW7471A
Percent Solids SM2540G	SM20 2540G
RCRA Metals by ICP-MS	SW6020
SW8082 PCB's	SW8082
VOC 8260 (S) Field Extracted	SW8260B
Volatile Organic Compounds (W) FULL	SW8260B

Sample ID Cross Reference

<u>Lab Sample ID</u>	<u>Client Sample ID</u>
1074088001	01886-SS1
1074088002	01886-Sed 1
1074088003	STB
1074088004	WTB



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-SS1**
SGS Ref. #: 1074088001
Project ID: 32-1-01886 Anch Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	ND	0.200	ug/L	1	MCV3692	MXX19341	

Batch Information

Analytical Batch: MCV3692
Analytical Method: SW7470A/E245.1
Analysis Date/Time: 08/20/07 15:45
Dilution Factor: 1

Prep Batch: MXX19341
Prep Method: METHOD
Prep Date/Time: 08/20/07 11:30

Initial Prep Wt./Vol.: 25 mL
Prep Extract Vol.: 50 mL
Container ID:1074088001-D
Analyst: AFH



Shannon & Wilson Inc.

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SGS Ref. #: 1074088001
Project ID: 32-1-01886 Anch Hatchery
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All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Arsenic	ND	10.0	ug/L	5	MMS5025	MXX19366	
Barium	105	3.00	ug/L	5	MMS5025	MXX19366	
Cadmium	ND	2.00	ug/L	5	MMS5025	MXX19366	
Chromium	13.8	4.00	ug/L	5	MMS5025	MXX19366	
Lead	5.11	1.00	ug/L	5	MMS5025	MXX19366	
Selenium	ND	10.0	ug/L	5	MMS5025	MXX19366	
Silver	ND	2.00	ug/L	5	MMS5025	MXX19366	

Batch Information

Analytical Batch: MMS5025
Analytical Method: SW6020
Analysis Date/Time: 08/27/07 18:39
Dilution Factor: 5

Prep Batch: MXX19366
Prep Method: SW3010A
Prep Date/Time: 08/22/07 09:30

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID: 1074088001-D
Analyst: TK



Shannon & Wilson Inc.

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Project ID: 32-1-01886 Anch Hatchery
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All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	0.100	mg/L	1	VFC8543	VXX17164	
4-Bromofluorobenzene <sur>	85.1	50-150	%	1	VFC8543	VXX17164	

Batch Information

Analytical Batch: VFC8543
Analytical Method: AK101
Analysis Date/Time: 08/21/07 14:58
Dilution Factor: 1

Prep Batch: VXX17164
Prep Method: SW5030B
Prep Date/Time: 08/21/07 12:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1074088001-C
Analyst: KAR



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Receipt Date/Time: 08/14/07 10:55

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Residual Range Organics	ND	0.500	mg/L	1	XFC7538	XXX18461	
Diesel Range Organics	0.383	0.300	mg/L	1	XFC7538	XXX18461	
5a Androstane <surr>	100	50-150	%	1	XFC7538	XXX18461	
n-Triacontane-d62 <surr>	107	50-150	%	1	XFC7538	XXX18461	

Batch Information

Analytical Batch: XFC7538
Analytical Method: AK102
Analysis Date/Time: 08/26/07 19:16
Dilution Factor: 1

Prep Batch: XXX18461
Prep Method: SW3520C
Prep Date/Time: 08/23/07 10:30

Initial Prep Wt./Vol.: 1000 mL
Prep Extract Vol.: 1 mL
Container ID:1074088001-E
Analyst: HKG

Analytical Batch: XFC7538
Analytical Method: AK103
Analysis Date/Time: 08/26/07 19:16
Dilution Factor: 1

Prep Batch: XXX18461
Prep Method: SW3520C
Prep Date/Time: 08/23/07 10:30

Initial Prep Wt./Vol.: 1000 mL
Prep Extract Vol.: 1 mL
Container ID:1074088001-E
Analyst: HKG



Shannon & Wilson Inc.

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Project ID: 32-1-01886 Anch Hatchery
Matrix: Water (Surface, Eff., Ground)

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Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1221	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1232	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1242	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1248	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1254	ND	0.130	ug/L	1	XGC5929	XXX18506	
Aroclor-1260	ND	0.130	ug/L	1	XGC5929	XXX18506	
Decachlorobiphenyl <sur>	101	42-120	%	1	XGC5929	XXX18506	

Batch Information

Analytical Batch: XGC5929
Analytical Method: SW8082
Analysis Date/Time: 09/04/07 12:58
Dilution Factor: 1

Prep Batch: XXX18506
Prep Method: SW3510C
Prep Date/Time: 08/31/07 15:00

Initial Prep Wt./Vol.: 770 mL
Prep Extract Vol.: 1 mL
Container ID:1074088001-G
Analyst: MCM



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Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	ug/L	1	VMS9278	VXX17115	
Toluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Ethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
n-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Carbon disulfide	ND	2.00	ug/L	1	VMS9278	VXX17115	
1,4-Dichlorobenzene	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,2-Dichloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,3,5-Trimethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
4-Chlorotoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chlorobenzene	ND	0.500	ug/L	1	VMS9278	VXX17115	
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L	1	VMS9278	VXX17115	
cis-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
4-Isopropyltoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
cis-1,3-Dichloropropene	ND	0.500	ug/L	1	VMS9278	VXX17115	
n-Propylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Styrene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Dibromomethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
trans-1,3-Dichloropropene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,4-Trichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,2,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,2-Dibromo-3-chloropropane	ND	2.00	ug/L	1	VMS9278	VXX17115	
Methyl-t-butyl ether	ND	5.00	ug/L	1	VMS9278	VXX17115	
Tetrachloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Chloroethyl Vinyl Ether	ND	10.0	ug/L	1	VMS9278	VXX17115	
Dibromochloromethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,3-Dichloropropane	ND	0.400	ug/L	1	VMS9278	VXX17115	
1,2-Dibromoethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Carbon tetrachloride	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
Chloroform	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chloromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,3-Trichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromomethane	ND	3.00	ug/L	1	VMS9278	VXX17115	
Bromochloromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Vinyl chloride	ND	1.00	ug/L	1	VMS9278	VXX17115	



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Collection Date/Time: 08/14/07 09:30
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Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Dichlorodifluoromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
sec-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromodichloromethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,1-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Butanone (MEK)	ND	10.0	ug/L	1	VMS9278	VXX17115	
Methylene chloride	ND	5.00	ug/L	1	VMS9278	VXX17115	
Trichlorofluoromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
P & M -Xylene	ND	2.00	ug/L	1	VMS9278	VXX17115	
Naphthalene	ND	2.00	ug/L	1	VMS9278	VXX17115	
o-Xylene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromoform	ND	1.00	ug/L	1	VMS9278	VXX17115	
Xylenes (total)	ND	2.00	ug/L	1	VMS9278	VXX17115	
1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
tert-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,1-Trichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1-Dichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Chlorotoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Trichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
trans-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2-Dichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2,2-Dichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Hexachlorobutadiene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Isopropylbenzene (Cumene)	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Hexanone	ND	10.0	ug/L	1	VMS9278	VXX17115	
1,2-Dichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1-Dichloropropene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,2-Trichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,3-Dichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,3-Trichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2-Dichloroethane-D4 <surr>	104	73-120	%	1	VMS9278	VXX17115	
Toluene-d8 <surr>	97	80-120	%	1	VMS9278	VXX17115	
4-Bromofluorobenzene <surr>	97.8	76-120	%	1	VMS9278	VXX17115	



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Project ID: 32-1-01886 Anch Hatchery
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Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9278		Prep Batch: VXX17115				Initial Prep Wt./Vol.: 5 mL	
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL	
Analysis Date/Time: 08/15/07 18:23		Prep Date/Time: 08/15/07 06:00				Container ID:1074088001-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Methyl-t-butyl ether	ND	52.9	ug/Kg	1	VMS9280	VXX17128	

Batch Information

Analytical Batch:
Analytical Method:
Analysis Date/Time:

Container ID:
Analyst:



Shannon & Wilson Inc.

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SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	307	72.5	ug/Kg	1	MCV3695	MXX19368	

Batch Information

Analytical Batch: MCV3695
Analytical Method: SW7471A
Analysis Date/Time: 08/22/07 16:42
Dilution Factor: 1

Prep Batch: MXX19368
Prep Method: METHOD
Prep Date/Time: 08/22/07 13:50

Initial Prep Wt./Vol.: 0.617 g
Prep Extract Vol.: 50 mL
Container ID:1074088002-B
Analyst: AFH



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Arsenic	6.24	1.78	mg/Kg	10	MMS5014	MXX19352	
Barium	108	0.534	mg/Kg	10	MMS5014	MXX19352	
Cadmium	ND	0.356	mg/Kg	10	MMS5014	MXX19352	
Chromium	38.3	0.712	mg/Kg	10	MMS5014	MXX19352	
Lead	9.76	0.356	mg/Kg	10	MMS5014	MXX19352	
Selenium	ND	0.890	mg/Kg	10	MMS5014	MXX19352	
Silver	0.364	0.178	mg/Kg	10	MMS5014	MXX19352	

Batch Information

Analytical Batch: MMS5014
Analytical Method: SW6020
Analysis Date/Time: 08/21/07 20:17
Dilution Factor: 10

Prep Batch: MXX19352
Prep Method: SW3050B
Prep Date/Time: 08/21/07 09:10

Initial Prep Wt./Vol.: 1.048 g
Prep Extract Vol.: 50 mL
Container ID:1074088002-B
Analyst: TK



Shannon & Wilson Inc.

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Client Sample ID: **01886-Sed 1**
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Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	3.31	mg/Kg	1	VFC8528	VXX17125	
4-Bromofluorobenzene <sur>	89.9	50-150	%	1	VFC8528	VXX17125	

Batch Information

Analytical Batch: VFC8528
Analytical Method: AK101
Analysis Date/Time: 08/17/07 17:45
Dilution Factor: 1

Prep Batch: VXX17125
Prep Method: AK101
Prep Date/Time: 08/14/07 09:45

Initial Prep Wt./Vol.: 70.445 g
Prep Extract Vol.: 25 mL
Container ID:1074088002-A
Analyst: KAR



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	ND	313	mg/Kg	10	XFC7553	XXX18471	
Residual Range Organics	321	313	mg/Kg	10	XFC7553	XXX18471	
5a Androstane <surr>	148	50-150	%	10	XFC7553	XXX18471	
n-Triacontane-d62 <surr>	59.9	50-150	%	10	XFC7553	XXX18471	

Batch Information

Analytical Batch: XFC7553
Analytical Method: AK102
Analysis Date/Time: 08/31/07 09:57
Dilution Factor: 10

Prep Batch: XXX18471
Prep Method: SW3550B
Prep Date/Time: 08/25/07 10:00

Initial Prep Wt./Vol.: 30.037 g
Prep Extract Vol.: 0.84 mL
Container ID:1074088002-C
Analyst: HKG

Analytical Batch: XFC7553
Analytical Method: AK103
Analysis Date/Time: 08/31/07 09:57
Dilution Factor: 10

Prep Batch: XXX18471
Prep Method: SW3550B
Prep Date/Time: 08/25/07 10:00

Initial Prep Wt./Vol.: 30.037 g
Prep Extract Vol.: 0.84 mL
Container ID:1074088002-C
Analyst: HKG



Shannon & Wilson Inc.

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Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
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Receipt Date/Time: 08/14/07 10:55

Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1221	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1232	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1242	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1248	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1254	930	92.3	ug/Kg	1	XGC5922	XXX18488	
Aroclor-1260	ND	92.3	ug/Kg	1	XGC5922	XXX18488	
Decachlorobiphenyl <sur>	86.1	60-125	%	1	XGC5922	XXX18488	

Batch Information

Analytical Batch: XGC5922
Analytical Method: SW8082
Analysis Date/Time: 08/29/07 18:22
Dilution Factor: 1

Prep Batch: XXX18488
Prep Method: SW3550B
Prep Date/Time: 08/28/07 13:00

Initial Prep Wt./Vol.: 22.733 g
Prep Extract Vol.: 5 mL
Container ID:1074088002-B
Analyst: MCM



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Benzene	ND	17.2	ug/Kg	1	VMS9280	VXX17128	
Toluene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
Ethylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
n-Butylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Carbon disulfide	ND	132	ug/Kg	1	VMS9280	VXX17128	
1,4-Dichlorobenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloroethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,3,5-Trimethylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
4-Chlorotoluene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Chlorobenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
4-Methyl-2-pentanone (MIBK)	ND	331	ug/Kg	1	VMS9280	VXX17128	
cis-1,2-Dichloroethene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
4-Isopropyltoluene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
cis-1,3-Dichloropropene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
n-Propylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Styrene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Dibromomethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
trans-1,3-Dichloropropene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2,4-Trichlorobenzene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
1,1,2,2-Tetrachloroethane	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
1,2-Dibromo-3-chloropropane	ND	132	ug/Kg	1	VMS9280	VXX17128	
Tetrachloroethene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
2-Chloroethyl Vinyl Ether	ND	132	ug/Kg	1	VMS9280	VXX17128	
Dibromochloromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,3-Dichloropropane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2-Dibromoethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Carbon tetrachloride	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1,1,2-Tetrachloroethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Chloroform	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Bromobenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Chloromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2,3-Trichloropropane	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
Bromomethane	ND	265	ug/Kg	1	VMS9280	VXX17128	
Bromochloromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Vinyl chloride	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Dichlorodifluoromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	265	ug/Kg	1	VMS9280	VXX17128	
sec-Butylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Bromodichloromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloroethene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
2-Butanone (MEK)	ND	331	ug/Kg	1	VMS9280	VXX17128	
Methylene chloride	ND	132	ug/Kg	1	VMS9280	VXX17128	
Trichlorofluoromethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
P & M -Xylene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
Naphthalene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
o-Xylene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
Bromoform	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Xylenes (total)	ND	132	ug/Kg	1	VMS9280	VXX17128	
1,2,4-Trimethylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
tert-Butylbenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1,1-Trichloroethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloroethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
2-Chlorotoluene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Trichloroethene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
trans-1,2-Dichloroethene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichlorobenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
2,2-Dichloropropane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
Hexachlorobutadiene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
Isopropylbenzene (Cumene)	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
2-Hexanone	ND	331	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloropropane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloropropene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,1,2-Trichloroethane	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,3-Dichlorobenzene	ND	33.1	ug/Kg	1	VMS9280	VXX17128	
1,2,3-Trichlorobenzene	ND	66.2	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloroethane-D4 <sur>	92.6	80-137	%	1	VMS9280	VXX17128	
Toluene-d8 <sur>	95.6	80-122	%	1	VMS9280	VXX17128	
4-Bromofluorobenzene <sur>	76.4	42-147	%	1	VMS9280	VXX17128	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9280		Prep Batch: VXX17128				Initial Prep Wt./Vol.: 70.45 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 08/17/07 17:25		Prep Date/Time: 08/14/07 09:45				Container ID:1074088002-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **01886-Sed 1**
SGS Ref. #: 1074088002
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 53.6

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:45
Receipt Date/Time: 08/14/07 10:55

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	53.6		%	1	SPT7345		

Batch Information

Analytical Batch: SPT7345
Analytical Method: SM20 2540G
Analysis Date/Time: 08/15/07 15:11
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1074088002-B
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **STB**
SGS Ref. #: 1074088003
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Methyl-t-butyl ether	ND	40.4	ug/Kg	1	VMS9280	VXX17128	

Batch Information

Analytical Batch:
Analytical Method:
Analysis Date/Time:

Container ID:
Analyst:



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **STB**
SGS Ref. #: 1074088003
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	13.1	ug/Kg	1	VMS9280	VXX17128	
Toluene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
Ethylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
n-Butylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Carbon disulfide	ND	101	ug/Kg	1	VMS9280	VXX17128	
1,4-Dichlorobenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloroethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,3,5-Trimethylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
4-Chlorotoluene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Chlorobenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
4-Methyl-2-pentanone (MIBK)	ND	253	ug/Kg	1	VMS9280	VXX17128	
cis-1,2-Dichloroethene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
4-Isopropyltoluene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
cis-1,3-Dichloropropene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
n-Propylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Styrene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Dibromomethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
trans-1,3-Dichloropropene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2,4-Trichlorobenzene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
1,1,2,2-Tetrachloroethane	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
1,2-Dibromo-3-chloropropane	ND	101	ug/Kg	1	VMS9280	VXX17128	
Tetrachloroethene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
2-Chloroethyl Vinyl Ether	ND	101	ug/Kg	1	VMS9280	VXX17128	
Dibromochloromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,3-Dichloropropane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2-Dibromoethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Carbon tetrachloride	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1,1,2-Tetrachloroethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Chloroform	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Bromobenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Chloromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2,3-Trichloropropane	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
Bromomethane	ND	202	ug/Kg	1	VMS9280	VXX17128	
Bromochloromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Vinyl chloride	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Dichlorodifluoromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **STB**
SGS Ref. #: 1074088003
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	202	ug/Kg	1	VMS9280	VXX17128	
sec-Butylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Bromodichloromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloroethene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
2-Butanone (MEK)	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Methylene chloride	ND	101	ug/Kg	1	VMS9280	VXX17128	
Trichlorofluoromethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
P & M -Xylene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
Naphthalene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
o-Xylene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
Bromoform	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Xylenes (total)	ND	101	ug/Kg	1	VMS9280	VXX17128	
1,2,4-Trimethylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
tert-Butylbenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1,1-Trichloroethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloroethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
2-Chlorotoluene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Trichloroethene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
trans-1,2-Dichloroethene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichlorobenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
2,2-Dichloropropane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
Hexachlorobutadiene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
Isopropylbenzene (Cumene)	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
2-Hexanone	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloropropane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1-Dichloropropene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,1,2-Trichloroethane	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,3-Dichlorobenzene	ND	25.3	ug/Kg	1	VMS9280	VXX17128	
1,2,3-Trichlorobenzene	ND	50.6	ug/Kg	1	VMS9280	VXX17128	
1,2-Dichloroethane-D4 <surr>	90.5	80-137	%	1	VMS9280	VXX17128	
Toluene-d8 <surr>	101	80-122	%	1	VMS9280	VXX17128	
4-Bromofluorobenzene <surr>	100	42-147	%	1	VMS9280	VXX17128	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **STB**
SGS Ref. #: 1074088003
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9280		Prep Batch: VXX17128				Initial Prep Wt./Vol.: 49.45 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 08/17/07 16:53		Prep Date/Time: 08/14/07 09:30				Container ID:1074088003-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **STB**
SGS Ref. #: 1074088003
Project ID: 32-1-01886 Anch Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	100		%	1	SPT7345		

Batch Information

Analytical Batch: SPT7345
Analytical Method: SM20 2540G
Analysis Date/Time: 08/15/07 15:11
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1074088003-A
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **WTB**
SGS Ref. #: 1074088004
Project ID: 32-1-01886 Anch Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	ug/L	1	VMS9278	VXX17115	
Toluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Ethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
n-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Carbon disulfide	ND	2.00	ug/L	1	VMS9278	VXX17115	
1,4-Dichlorobenzene	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,2-Dichloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,3,5-Trimethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
4-Chlorotoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chlorobenzene	ND	0.500	ug/L	1	VMS9278	VXX17115	
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L	1	VMS9278	VXX17115	
cis-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
4-Isopropyltoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
cis-1,3-Dichloropropene	ND	0.500	ug/L	1	VMS9278	VXX17115	
n-Propylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Styrene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Dibromomethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
trans-1,3-Dichloropropene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,4-Trichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,2,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,2-Dibromo-3-chloropropane	ND	2.00	ug/L	1	VMS9278	VXX17115	
Methyl-t-butyl ether	ND	5.00	ug/L	1	VMS9278	VXX17115	
Tetrachloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Chloroethyl Vinyl Ether	ND	10.0	ug/L	1	VMS9278	VXX17115	
Dibromochloromethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,3-Dichloropropane	ND	0.400	ug/L	1	VMS9278	VXX17115	
1,2-Dibromoethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Carbon tetrachloride	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
Chloroform	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chloromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,3-Trichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromomethane	ND	3.00	ug/L	1	VMS9278	VXX17115	
Bromochloromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Vinyl chloride	ND	1.00	ug/L	1	VMS9278	VXX17115	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **WTB**
SGS Ref. #: 1074088004
Project ID: 32-1-01886 Anch Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Dichlorodifluoromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Chloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
sec-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromodichloromethane	ND	0.500	ug/L	1	VMS9278	VXX17115	
1,1-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Butanone (MEK)	ND	10.0	ug/L	1	VMS9278	VXX17115	
Methylene chloride	ND	5.00	ug/L	1	VMS9278	VXX17115	
Trichlorofluoromethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
P & M -Xylene	ND	2.00	ug/L	1	VMS9278	VXX17115	
Naphthalene	ND	2.00	ug/L	1	VMS9278	VXX17115	
o-Xylene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Bromoform	ND	1.00	ug/L	1	VMS9278	VXX17115	
Xylenes (total)	ND	2.00	ug/L	1	VMS9278	VXX17115	
1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
tert-Butylbenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,1-Trichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1-Dichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Chlorotoluene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Trichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
trans-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2-Dichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
2,2-Dichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
Hexachlorobutadiene	ND	1.00	ug/L	1	VMS9278	VXX17115	
Isopropylbenzene (Cumene)	ND	1.00	ug/L	1	VMS9278	VXX17115	
2-Hexanone	ND	10.0	ug/L	1	VMS9278	VXX17115	
1,2-Dichloropropane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1-Dichloropropene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,1,2-Trichloroethane	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,3-Dichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2,3-Trichlorobenzene	ND	1.00	ug/L	1	VMS9278	VXX17115	
1,2-Dichloroethane-D4 <surr>	105	73-120	%	1	VMS9278	VXX17115	
Toluene-d8 <surr>	98.8	80-120	%	1	VMS9278	VXX17115	
4-Bromofluorobenzene <surr>	98.1	76-120	%	1	VMS9278	VXX17115	



Shannon & Wilson Inc.

Print Date: 9/7/2007

Client Sample ID: **WTB**
SGS Ref. #: 1074088004
Project ID: 32-1-01886 Anch Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 08/14/07 09:30
Receipt Date/Time: 08/14/07 10:55

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9278		Prep Batch: VXX17115				Initial Prep Wt./Vol.: 5 mL	
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL	
Analysis Date/Time: 08/15/07 17:51		Prep Date/Time: 08/15/07 06:00				Container ID:1074088004-A	
Dilution Factor: 1						Analyst: KPW	



SGS Ref.# 782592 Leaching Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

QC results affect the following production samples:
1074088001, 1074088004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>TCLP Volatiles GC/MS</u>					
1,1-Dichloroethene	ND	200	62.0	ug/L	08/15/07
1,2-Dichloroethane	ND	100	30.0	ug/L	08/15/07
1,4-Dichlorobenzene	ND	100	30.0	ug/L	08/15/07
2-Butanone (MEK)	ND	2000	620	ug/L	08/15/07
Benzene	ND	80.0	24.0	ug/L	08/15/07
Carbon tetrachloride	ND	200	62.0	ug/L	08/15/07
Chlorobenzene	ND	100	30.0	ug/L	08/15/07
Chloroform	ND	200	60.0	ug/L	08/15/07
Hexachlorobutadiene	ND	200	62.0	ug/L	08/15/07
Tetrachloroethene	ND	200	62.0	ug/L	08/15/07
Trichloroethene	ND	200	62.0	ug/L	08/15/07
Vinyl chloride	ND	200	62.0	ug/L	08/15/07
Surrogates					
1,2-Dichloroethane-D4 <surr>	105	73-120		%	08/15/07
4-Bromofluorobenzene <surr>	96.7	76-120		%	08/15/07
Toluene-d8 <surr>	99.9	80-120		%	08/15/07
Batch	VMS9278				
Method	SW8260B				
Instrument	HP 5890 Series II MS3 VNA				



SGS Ref.# 782872 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch
Method
Date

QC results affect the following production samples:
1074088002, 1074088003

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Solids

Total Solids	100			%	08/15/07
Batch	SPT7345				
Method	SM20 2540G				
Instrument					



SGS Ref.# 782914 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

QC results affect the following production samples:
1074088001, 1074088004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 782914 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>					
Benzene	ND	0.400	0.120	ug/L	08/15/07
Toluene	ND	1.00	0.310	ug/L	08/15/07
Ethylbenzene	ND	1.00	0.310	ug/L	08/15/07
n-Butylbenzene	ND	1.00	0.310	ug/L	08/15/07
Carbon disulfide	ND	2.00	0.620	ug/L	08/15/07
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	08/15/07
1,2-Dichloroethane	ND	0.500	0.150	ug/L	08/15/07
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	08/15/07
4-Chlorotoluene	ND	1.00	0.310	ug/L	08/15/07
Chlorobenzene	ND	0.500	0.150	ug/L	08/15/07
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	08/15/07
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/15/07
4-Isopropyltoluene	ND	1.00	0.310	ug/L	08/15/07
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	08/15/07
n-Propylbenzene	ND	1.00	0.310	ug/L	08/15/07
Styrene	ND	1.00	0.310	ug/L	08/15/07
Dibromomethane	ND	1.00	0.310	ug/L	08/15/07
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	08/15/07
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	08/15/07
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/15/07
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	08/15/07
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	08/15/07
Tetrachloroethene	ND	1.00	0.310	ug/L	08/15/07
2-Chloroethyl Vinyl Ether	ND	10.0	3.10	ug/L	08/15/07
Dibromochloromethane	ND	0.500	0.150	ug/L	08/15/07
1,3-Dichloropropane	ND	0.400	0.120	ug/L	08/15/07
1,2-Dibromoethane	ND	1.00	0.310	ug/L	08/15/07
Carbon tetrachloride	ND	1.00	0.310	ug/L	08/15/07
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/15/07
Chloroform	ND	1.00	0.300	ug/L	08/15/07
Bromobenzene	ND	1.00	0.310	ug/L	08/15/07
Chloromethane	ND	1.00	0.310	ug/L	08/15/07
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	08/15/07
Bromomethane	ND	3.00	0.940	ug/L	08/15/07
Bromochloromethane	ND	1.00	0.310	ug/L	08/15/07
Vinyl chloride	ND	1.00	0.310	ug/L	08/15/07
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	08/15/07
Chloroethane	ND	1.00	0.310	ug/L	08/15/07
sec-Butylbenzene	ND	1.00	0.310	ug/L	08/15/07



SGS Ref.# 782914 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Bromodichloromethane	ND	0.500	0.150	ug/L	08/15/07
1,1-Dichloroethene	ND	1.00	0.310	ug/L	08/15/07
2-Butanone (MEK)	ND	10.0	3.10	ug/L	08/15/07
Methylene chloride	ND	5.00	1.00	ug/L	08/15/07
Trichlorofluoromethane	ND	1.00	0.310	ug/L	08/15/07
P & M -Xylene	ND	2.00	0.620	ug/L	08/15/07
Naphthalene	ND	2.00	0.620	ug/L	08/15/07
o-Xylene	ND	1.00	0.310	ug/L	08/15/07
Bromoform	ND	1.00	0.310	ug/L	08/15/07
Xylenes (total)	ND	2.00	1.00	ug/L	08/15/07
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	08/15/07
tert-Butylbenzene	ND	1.00	0.310	ug/L	08/15/07
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	08/15/07
1,1-Dichloroethane	ND	1.00	0.310	ug/L	08/15/07
2-Chlorotoluene	ND	1.00	0.310	ug/L	08/15/07
Trichloroethene	ND	1.00	0.310	ug/L	08/15/07
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/15/07
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	08/15/07
2,2-Dichloropropane	ND	1.00	0.310	ug/L	08/15/07
Hexachlorobutadiene	ND	1.00	0.310	ug/L	08/15/07
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	08/15/07
2-Hexanone	ND	10.0	3.10	ug/L	08/15/07
1,2-Dichloropropane	ND	1.00	0.310	ug/L	08/15/07
1,1-Dichloropropene	ND	1.00	0.310	ug/L	08/15/07
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	08/15/07
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	08/15/07
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	08/15/07

Surrogates

1,2-Dichloroethane-D4 <surr>	104	73-120		%	08/15/07
Toluene-d8 <surr>	99.4	80-120		%	08/15/07
4-Bromofluorobenzene <surr>	94.9	76-120		%	08/15/07

Batch VMS9278
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



SGS Ref.# 783508 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17125
Method AK101
Date 08/17/2007

QC results affect the following production samples:
1074088002

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

Gasoline Range Organics	ND	2.50	0.500	mg/Kg	08/17/07
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Surrogates

4-Bromofluorobenzene <surr>	100	50-150		%	08/17/07
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Batch VFC8528
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 783806 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

QC results affect the following production samples:
1074088002, 1074088003

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Methyl-t-butyl ether	ND	40.0	12.0	ug/Kg	08/17/07
Batch	VMS9280				
Method	SW8260B				
Instrument	HP 5890 Series II MS1 VMA				

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 783806 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Benzene	ND	13.0	3.90	ug/Kg	08/17/07
Toluene	ND	50.0	15.0	ug/Kg	08/17/07
Ethylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
n-Butylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
Carbon disulfide	ND	100	31.0	ug/Kg	08/17/07
1,4-Dichlorobenzene	ND	25.0	7.80	ug/Kg	08/17/07
1,2-Dichloroethane	ND	25.0	7.80	ug/Kg	08/17/07
1,3,5-Trimethylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
4-Chlorotoluene	ND	25.0	7.80	ug/Kg	08/17/07
Chlorobenzene	ND	25.0	7.80	ug/Kg	08/17/07
4-Methyl-2-pentanone (MIBK)	ND	250	78.0	ug/Kg	08/17/07
cis-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	08/17/07
4-Isopropyltoluene	ND	25.0	7.80	ug/Kg	08/17/07
cis-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	08/17/07
n-Propylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
Styrene	ND	25.0	7.80	ug/Kg	08/17/07
Dibromomethane	ND	25.0	7.80	ug/Kg	08/17/07
trans-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	08/17/07
1,2,4-Trichlorobenzene	ND	50.0	15.0	ug/Kg	08/17/07
1,1,2,2-Tetrachloroethane	ND	50.0	15.0	ug/Kg	08/17/07
1,2-Dibromo-3-chloropropane	ND	100	31.0	ug/Kg	08/17/07
Tetrachloroethene	ND	25.0	7.80	ug/Kg	08/17/07
2-Chloroethyl Vinyl Ether	ND	100	31.0	ug/Kg	08/17/07
Dibromochloromethane	ND	25.0	7.80	ug/Kg	08/17/07
1,3-Dichloropropane	ND	25.0	7.80	ug/Kg	08/17/07
1,2-Dibromoethane	ND	25.0	7.80	ug/Kg	08/17/07
Carbon tetrachloride	ND	25.0	7.80	ug/Kg	08/17/07
1,1,1,2-Tetrachloroethane	ND	25.0	7.80	ug/Kg	08/17/07
Chloroform	ND	25.0	7.80	ug/Kg	08/17/07
Bromobenzene	ND	25.0	7.80	ug/Kg	08/17/07
Chloromethane	ND	25.0	7.80	ug/Kg	08/17/07
1,2,3-Trichloropropane	ND	50.0	15.0	ug/Kg	08/17/07
Bromomethane	ND	200	62.0	ug/Kg	08/17/07
Bromochloromethane	ND	25.0	7.80	ug/Kg	08/17/07
Vinyl chloride	ND	25.0	7.80	ug/Kg	08/17/07
Dichlorodifluoromethane	ND	25.0	7.80	ug/Kg	08/17/07
Chloroethane	ND	200	62.0	ug/Kg	08/17/07
sec-Butylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
Bromodichloromethane	ND	25.0	7.80	ug/Kg	08/17/07



SGS Ref.# 783806 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloroethene	ND	25.0	7.80	ug/Kg	08/17/07
2-Butanone (MEK)	ND	250	78.0	ug/Kg	08/17/07
Methylene chloride	ND	100	31.0	ug/Kg	08/17/07
Trichlorofluoromethane	ND	25.0	7.80	ug/Kg	08/17/07
P & M -Xylene	ND	50.0	15.0	ug/Kg	08/17/07
Naphthalene	ND	50.0	15.0	ug/Kg	08/17/07
o-Xylene	ND	50.0	15.0	ug/Kg	08/17/07
Bromoform	ND	25.0	7.80	ug/Kg	08/17/07
Xylenes (total)	ND	100	30.0	ug/Kg	08/17/07
1,2,4-Trimethylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
tert-Butylbenzene	ND	25.0	7.80	ug/Kg	08/17/07
1,1,1-Trichloroethane	ND	25.0	7.80	ug/Kg	08/17/07
1,1-Dichloroethane	ND	25.0	7.80	ug/Kg	08/17/07
2-Chlorotoluene	ND	25.0	7.80	ug/Kg	08/17/07
Trichloroethene	ND	25.0	7.80	ug/Kg	08/17/07
trans-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	08/17/07
1,2-Dichlorobenzene	ND	25.0	7.80	ug/Kg	08/17/07
2,2-Dichloropropane	ND	25.0	7.80	ug/Kg	08/17/07
Hexachlorobutadiene	ND	50.0	15.0	ug/Kg	08/17/07
Isopropylbenzene (Cumene)	ND	25.0	7.80	ug/Kg	08/17/07
2-Hexanone	ND	250	78.0	ug/Kg	08/17/07
1,2-Dichloropropane	ND	25.0	7.80	ug/Kg	08/17/07
1,1-Dichloropropene	ND	25.0	7.80	ug/Kg	08/17/07
1,1,2-Trichloroethane	ND	25.0	7.80	ug/Kg	08/17/07
1,3-Dichlorobenzene	ND	25.0	7.80	ug/Kg	08/17/07
1,2,3-Trichlorobenzene	ND	50.0	15.0	ug/Kg	08/17/07

Surrogates

1,2-Dichloroethane-D4 <surr>	89.5	80-137		%	08/17/07
Toluene-d8 <surr>	97.7	80-122		%	08/17/07
4-Bromofluorobenzene <surr>	99.8	42-147		%	08/17/07

Batch VMS9280
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 783902 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19341
Method METHOD
Date 08/20/2007

QC results affect the following production samples:
1074088001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Metals Department

Mercury	ND	0.200	0.0620	ug/L	08/20/07
Batch	MCV3692				
Method	SW7470A/E245.1				
Instrument	PSA Millennium mercury AA				



SGS Ref.# 784139 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19352
Method SW3050B
Date 08/21/2007

QC results affect the following production samples:
1074088002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Metals by ICP/MS					
Arsenic	ND	1.00	0.310	mg/Kg	08/21/07
Barium	ND	0.300	0.0940	mg/Kg	08/21/07
Cadmium	ND	0.200	0.0620	mg/Kg	08/21/07
Chromium	ND	0.400	0.120	mg/Kg	08/21/07
Lead	ND	0.200	0.0620	mg/Kg	08/21/07
Selenium	ND	0.500	0.150	mg/Kg	08/21/07
Silver	ND	0.100	0.0310	mg/Kg	08/21/07
Batch	MMS5014				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				



SGS Ref.# 784645 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19366
Method SW3010A
Date 08/22/2007

QC results affect the following production samples:
1074088001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Metals by ICP/MS					
Arsenic	ND	10.0	5.00	ug/L	08/27/07
Barium	ND	3.00	0.940	ug/L	08/27/07
Cadmium	ND	2.00	1.00	ug/L	08/27/07
Chromium	3.21 J	4.00	1.20	ug/L	08/28/07
Lead	ND	1.00	0.310	ug/L	08/27/07
Selenium	ND	10.0	3.10	ug/L	08/27/07
Silver	ND	2.00	0.620	ug/L	08/27/07
Batch	MMS5025				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				



SGS Ref.# 784658 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19368
Method METHOD
Date 08/22/2007

QC results affect the following production samples:
1074088002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Metals Department

Mercury	ND	40.0	12.0	ug/Kg	08/22/07
Batch	MCV3695				
Method	SW7471A				
Instrument	PSA Millennium mercury AA				



SGS Ref.# 784829 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18461
Method SW3520C
Date 08/23/2007

QC results affect the following production samples:
1074088001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	0.300	0.0600	mg/L	08/26/07
Surrogates					
5a Androstane <surr>	103	60-120		%	08/26/07
Batch	XFC7538				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				
Residual Range Organics	0.140 J	0.500	0.100	mg/L	08/26/07
Surrogates					
n-Triacontane-d62 <surr>	108	60-120		%	08/26/07
Batch	XFC7538				
Method	AK103				
Instrument	HP 5890 Series II FID SV D F				



SGS Ref.# 785366 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18471
Method SW3550B
Date 08/25/2007

QC results affect the following production samples:
 1074088002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>Semivolatile Organic Fuels Department</u>					
Diesel Range Organics	ND	34.5	3.45	mg/Kg	08/30/07
Surrogates					
5a Androstane <surr>	86.3	60-120		%	08/30/07
Batch	XFC7550				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				
Residual Range Organics	13.2 J	34.5	3.45	mg/Kg	08/30/07
Surrogates					
n-Triacontane-d62 <surr>	96.1	60-120		%	08/30/07
Batch	XFC7550				
Method	AK103				
Instrument	HP 5890 Series II FID SV D F				



SGS Ref.# 785385 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17164
Method SW5030B
Date 08/21/2007

QC results affect the following production samples:
1074088001

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

Gasoline Range Organics	0.0110J	0.100	0.0100	mg/L	08/21/07
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Surrogates

4-Bromofluorobenzene <surr>	136	50-150		%	08/21/07
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Batch VFC8543
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 786032 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18488
Method SW3550B
Date 08/28/2007

QC results affect the following production samples:
1074088002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Polychlorinated Biphenyls

Aroclor-1016	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1221	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1232	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1242	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1248	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1254	ND	49.7	14.9	ug/Kg	08/29/07
Aroclor-1260	ND	49.7	14.9	ug/Kg	08/29/07

Surrogates

Decachlorobiphenyl <surr>	88.1	60-125		%	08/29/07
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Batch XGC5922
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 787309 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18506
Method SW3510C
Date 08/31/2007

QC results affect the following production samples:
1074088001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>Polychlorinated Biphenyls</u>					
Aroclor-1016	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1221	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1232	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1242	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1248	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1254	ND	0.100	0.0310	ug/L	09/04/07
Aroclor-1260	ND	0.100	0.0310	ug/L	09/04/07
Surrogates					
Decachlorobiphenyl <surr>	98.3	42-120		%	09/04/07
Batch	XGC5929				
Method	SW8082				
Instrument	HP 6890 Series II ECD SV H R				



SGS Ref.# 782873 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Original 1073876001
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch
Method
Date

QC results affect the following production samples:
1074088002, 1074088003

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

Total Solids	81.4	81.2	%	0	(< 5)	08/15/2007
Batch	SPT7345					
Method	SM20 2540G					
Instrument						



SGS Ref.# 782915 Lab Control Sample
782916 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

QC results affect the following production samples:

1074088001, 1074088004

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 782915 Lab Control Sample
 782916 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS	32.8	109	(80-120)		30 ug/L	08/15/2007
	LCSD	31.9	106		3 (< 20)	30 ug/L	08/15/2007
Toluene	LCS	28.4	95	(77-120)		30 ug/L	08/15/2007
	LCSD	28.0	93		2 (< 20)	30 ug/L	08/15/2007
Ethylbenzene	LCS	28.8	96	(80-120)		30 ug/L	08/15/2007
	LCSD	27.9	93		3 (< 20)	30 ug/L	08/15/2007
n-Butylbenzene	LCS	26.7	89	(80-124)		30 ug/L	08/15/2007
	LCSD	25.3	84		5 (< 20)	30 ug/L	08/15/2007
Carbon disulfide	LCS	53.9	120	(72-123)		45 ug/L	08/15/2007
	LCSD	52.6	117		2 (< 20)	45 ug/L	08/15/2007
1,4-Dichlorobenzene	LCS	28.6	95	(80-120)		30 ug/L	08/15/2007
	LCSD	27.5	92		4 (< 20)	30 ug/L	08/15/2007
1,2-Dichloroethane	LCS	34.1	114	(80-129)		30 ug/L	08/15/2007
	LCSD	33.6	112		1 (< 20)	30 ug/L	08/15/2007
1,3,5-Trimethylbenzene	LCS	26.7	89	(80-128)		30 ug/L	08/15/2007
	LCSD	25.4	85		5 (< 20)	30 ug/L	08/15/2007
4-Chlorotoluene	LCS	27.4	91	(79-128)		30 ug/L	08/15/2007
	LCSD	26.7	89		3 (< 20)	30 ug/L	08/15/2007
Chlorobenzene	LCS	31.2	104	(80-120)		30 ug/L	08/15/2007
	LCSD	30.7	102		2 (< 20)	30 ug/L	08/15/2007
4-Methyl-2-pentanone (MIBK)	LCS	100	112	(69-134)		90 ug/L	08/15/2007
	LCSD	96.9	108		4 (< 20)	90 ug/L	08/15/2007
cis-1,2-Dichloroethene	LCS	29.9	100	(80-125)		30 ug/L	08/15/2007
	LCSD	29.6	99		1 (< 20)	30 ug/L	08/15/2007
4-Isopropyltoluene	LCS	26.4	88	(80-125)		30 ug/L	08/15/2007
	LCSD	25.1	84		5 (< 20)	30 ug/L	08/15/2007
cis-1,3-Dichloropropene	LCS	32.3	108	(80-120)		30 ug/L	08/15/2007
	LCSD	31.2	104		4 (< 20)	30 ug/L	08/15/2007



SGS Ref.# 782915 Lab Control Sample
 782916 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
n-Propylbenzene	LCS	26.7	89	(80-129)		30 ug/L	08/15/2007
	LCSD	25.4	85		5	(< 20)	30 ug/L 08/15/2007
Styrene	LCS	28.3	95	(80-120)		30 ug/L	08/15/2007
	LCSD	28.0	93		1	(< 20)	30 ug/L 08/15/2007
Dibromomethane	LCS	32.2	107	(80-120)		30 ug/L	08/15/2007
	LCSD	31.4	105		3	(< 20)	30 ug/L 08/15/2007
trans-1,3-Dichloropropene	LCS	29.1	97	(80-124)		30 ug/L	08/15/2007
	LCSD	28.6	95		2	(< 20)	30 ug/L 08/15/2007
1,2,4-Trichlorobenzene	LCS	28.0	93	(80-120)		30 ug/L	08/15/2007
	LCSD	27.2	91		3	(< 20)	30 ug/L 08/15/2007
1,1,2,2-Tetrachloroethane	LCS	29.0	97	(76-123)		30 ug/L	08/15/2007
	LCSD	27.9	93		4	(< 20)	30 ug/L 08/15/2007
1,2-Dibromo-3-chloropropane	LCS	30.6	102	(73-130)		30 ug/L	08/15/2007
	LCSD	28.8	96		6	(< 20)	30 ug/L 08/15/2007
Methyl-t-butyl ether	LCS	45.9	102	(80-120)		45 ug/L	08/15/2007
	LCSD	45.2	100		2	(< 20)	45 ug/L 08/15/2007
Tetrachloroethene	LCS	29.2	97	(79-122)		30 ug/L	08/15/2007
	LCSD	28.7	96		2	(< 20)	30 ug/L 08/15/2007
2-Chloroethyl Vinyl Ether	LCS	49.2	109	(58-140)		45 ug/L	08/15/2007
	LCSD	50.8	113		3	(< 20)	45 ug/L 08/15/2007
Dibromochloromethane	LCS	34.1	114	(80-120)		30 ug/L	08/15/2007
	LCSD	33.9	113		0	(< 20)	30 ug/L 08/15/2007
1,3-Dichloropropane	LCS	32.1	107	(80-121)		30 ug/L	08/15/2007
	LCSD	31.1	104		3	(< 20)	30 ug/L 08/15/2007
1,2-Dibromoethane	LCS	29.8	99	(80-120)		30 ug/L	08/15/2007
	LCSD	29.5	98		1	(< 20)	30 ug/L 08/15/2007
Carbon tetrachloride	LCS	34.2	114	(80-126)		30 ug/L	08/15/2007



SGS Ref.#	782915	Lab Control Sample	Printed Date/Time	09/07/2007	8:25
	782916	Lab Control Sample Duplicate	Prep	VXX17115	
Client Name	Shannon & Wilson Inc.		Batch	SW5030B	
Project Name/#	32-1-01886 Anch Hatchery		Method		
Matrix	Water (Surface, Eff., Ground)		Date	08/15/2007	

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
	LCS	33.4	111				
	LCS	32.1	107				
1,1,1,2-Tetrachloroethane	LCS	32.1	107	(80-120)		30 ug/L	08/15/2007
	LCS	31.7	106				
	LCS	31.7	106				
	LCS	26.7	89	(80-124)		30 ug/L	08/15/2007
Chloroform	LCS	26.7	89	(80-124)		30 ug/L	08/15/2007
	LCS	25.9	86				
	LCS	25.9	86				
	LCS	28.3	94	(80-120)		30 ug/L	08/15/2007
Bromobenzene	LCS	28.3	94	(80-120)		30 ug/L	08/15/2007
	LCS	27.1	91				
	LCS	27.1	91				
	LCS	38.3	128 *	(67-125)		30 ug/L	08/15/2007
Chloromethane	LCS	38.3	128 *	(67-125)		30 ug/L	08/15/2007
	LCS	37.9	126 *				
	LCS	37.9	126 *				
	LCS	29.5	98	(80-120)		30 ug/L	08/15/2007
1,2,3-Trichloropropane	LCS	29.5	98	(80-120)		30 ug/L	08/15/2007
	LCS	27.7	92				
	LCS	27.7	92				
	LCS	38.6	129	(30-140)		30 ug/L	08/15/2007
Bromomethane	LCS	38.6	129	(30-140)		30 ug/L	08/15/2007
	LCS	39.6	132				
	LCS	39.6	132				
	LCS	30.9	103	(77-129)		30 ug/L	08/15/2007
Bromochloromethane	LCS	30.9	103	(77-129)		30 ug/L	08/15/2007
	LCS	30.7	102				
	LCS	30.7	102				
	LCS	35.9	120	(72-145)		30 ug/L	08/15/2007
Vinyl chloride	LCS	35.9	120	(72-145)		30 ug/L	08/15/2007
	LCS	37.2	124				
	LCS	37.2	124				
	LCS	40.6	135	(62-153)		30 ug/L	08/15/2007
Dichlorodifluoromethane	LCS	40.6	135	(62-153)		30 ug/L	08/15/2007
	LCS	40.7	136				
	LCS	40.7	136				
	LCS	37.8	126	(67-133)		30 ug/L	08/15/2007
Chloroethane	LCS	37.8	126	(67-133)		30 ug/L	08/15/2007
	LCS	37.9	126				
	LCS	37.9	126				
	LCS	26.6	89	(80-120)		30 ug/L	08/15/2007
sec-Butylbenzene	LCS	26.6	89	(80-120)		30 ug/L	08/15/2007
	LCS	25.4	85				
	LCS	25.4	85				
	LCS	35.4	118	(80-120)		30 ug/L	08/15/2007
Bromodichloromethane	LCS	35.4	118	(80-120)		30 ug/L	08/15/2007
	LCS	34.7	116				
	LCS	34.7	116				
	LCS	36.6	122	(76-130)		30 ug/L	08/15/2007
1,1-Dichloroethene	LCS	36.6	122	(76-130)		30 ug/L	08/15/2007
	LCS	35.6	119				
	LCS	35.6	119				



SGS Ref.#	782915	Lab Control Sample	Printed Date/Time	09/07/2007	8:25
	782916	Lab Control Sample Duplicate	Prep	VXX17115	
Client Name	Shannon & Wilson Inc.		Batch	SW5030B	
Project Name/#	32-1-01886 Anch Hatchery		Method		
Matrix	Water (Surface, Eff., Ground)		Date	08/15/2007	

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
2-Butanone (MEK)	LCS	92.7	103	(66-136)		90 ug/L	08/15/2007
	LCSD	89.8	100		3	(< 20)	90 ug/L 08/15/2007
Methylene chloride	LCS	32.3	108	(63-131)		30 ug/L	08/15/2007
	LCSD	31.3	104		3	(< 20)	30 ug/L 08/15/2007
Trichlorofluoromethane	LCS	36.1	120	(68-145)		30 ug/L	08/15/2007
	LCSD	37.4	125		3	(< 20)	30 ug/L 08/15/2007
P & M -Xylene	LCS	57.3	96	(80-120)		60 ug/L	08/15/2007
	LCSD	56.3	94		2	(< 20)	60 ug/L 08/15/2007
Naphthalene	LCS	30.4	101	(75-120)		30 ug/L	08/15/2007
	LCSD	29.7	99		2	(< 20)	30 ug/L 08/15/2007
o-Xylene	LCS	28.1	94	(80-120)		30 ug/L	08/15/2007
	LCSD	27.7	92		1	(< 20)	30 ug/L 08/15/2007
Bromoform	LCS	39.8	133 *	(80-120)		30 ug/L	08/15/2007
	LCSD	39.9	133 *		0	(< 20)	30 ug/L 08/15/2007
Xylenes (total)	LCS	85.4	95	(80-120)		90 ug/L	08/15/2007
	LCSD	83.9	93		2	(< 20)	90 ug/L 08/15/2007
1,2,4-Trimethylbenzene	LCS	26.5	88	(80-125)		30 ug/L	08/15/2007
	LCSD	25.3	85		4	(< 20)	30 ug/L 08/15/2007
tert-Butylbenzene	LCS	26.4	88	(80-122)		30 ug/L	08/15/2007
	LCSD	25.1	84		5	(< 20)	30 ug/L 08/15/2007
1,1,1-Trichloroethane	LCS	31.2	104	(80-122)		30 ug/L	08/15/2007
	LCSD	30.1	100		4	(< 20)	30 ug/L 08/15/2007
1,1-Dichloroethane	LCS	30.9	103	(80-120)		30 ug/L	08/15/2007
	LCSD	29.9	100		3	(< 20)	30 ug/L 08/15/2007
2-Chlorotoluene	LCS	26.4	88	(80-125)		30 ug/L	08/15/2007
	LCSD	24.9	83		6	(< 20)	30 ug/L 08/15/2007
Trichloroethene	LCS	30.0	100	(80-125)		30 ug/L	08/15/2007
	LCSD	29.2	97		3	(< 20)	30 ug/L 08/15/2007



SGS Ref.# 782915 Lab Control Sample
 782916 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
trans-1,2-Dichloroethene	LCS	30.5	102	(79-132)		30 ug/L	08/15/2007
	LCSD	29.8	100		2	(< 20)	30 ug/L 08/15/2007
1,2-Dichlorobenzene	LCS	27.3	91	(80-120)		30 ug/L	08/15/2007
	LCSD	26.5	88		3	(< 20)	30 ug/L 08/15/2007
2,2-Dichloropropane	LCS	30.0	100	(80-132)		30 ug/L	08/15/2007
	LCSD	28.9	96		4	(< 20)	30 ug/L 08/15/2007
Hexachlorobutadiene	LCS	27.3	91	(77-125)		30 ug/L	08/15/2007
	LCSD	26.8	89		2	(< 20)	30 ug/L 08/15/2007
Isopropylbenzene (Cumene)	LCS	28.1	94	(80-121)		30 ug/L	08/15/2007
	LCSD	27.5	92		2	(< 20)	30 ug/L 08/15/2007
2-Hexanone	LCS	96.2	107	(68-130)		90 ug/L	08/15/2007
	LCSD	93.5	104		3	(< 20)	90 ug/L 08/15/2007
1,2-Dichloropropane	LCS	31.0	103	(80-121)		30 ug/L	08/15/2007
	LCSD	30.2	101		3	(< 20)	30 ug/L 08/15/2007
1,1-Dichloropropene	LCS	31.5	105	(80-122)		30 ug/L	08/15/2007
	LCSD	30.2	101		4	(< 20)	30 ug/L 08/15/2007
1,1,2-Trichloroethane	LCS	29.9	100	(77-120)		30 ug/L	08/15/2007
	LCSD	29.2	98		2	(< 20)	30 ug/L 08/15/2007
1,3-Dichlorobenzene	LCS	27.2	91	(80-120)		30 ug/L	08/15/2007
	LCSD	26.3	88		3	(< 20)	30 ug/L 08/15/2007
1,2,3-Trichlorobenzene	LCS	28.6	95	(77-120)		30 ug/L	08/15/2007
	LCSD	28.3	94		1	(< 20)	30 ug/L 08/15/2007
Surrogates							
1,2-Dichloroethane-D4 <surr>	LCS		104	(73-120)			08/15/2007
	LCSD		103		0		08/15/2007
Toluene-d8 <surr>	LCS		98	(80-120)			08/15/2007
	LCSD		98		0		08/15/2007



SGS Ref.# 782915 Lab Control Sample
782916 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17115
Method SW5030B
Date 08/15/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatiles Gas Chromatography/Mass Spectroscopy

4-Bromofluorobenzene <surr>	LCS	95	(76-120)				08/15/2007
	LCSD	94		1			08/15/2007

Batch VMS9278
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



SGS Ref.# 783511 Lab Control Sample
783512 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17125
Method AK101
Date 08/17/2007

QC results affect the following production samples:

1074088002

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

Gasoline Range Organics	LCS	12.2	108	(60-120)		11.3 mg/Kg	08/17/2007
	LCSD	11.9	105		3	(< 20)	11.3 mg/Kg 08/17/2007

Surrogates

4-Bromofluorobenzene <surr>	LCS		113	(50-150)			08/17/2007
	LCSD		111		2		08/17/2007

Batch VFC8528
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 783807 Lab Control Sample

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

QC results affect the following production samples:
1074088002, 1074088003

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Methyl-t-butyl ether	LCS	1190	106	(78-123)			1130 ug/Kg	08/17/2007

Batch VMS9280
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 783807 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 790	105	(80-125)			750 ug/Kg	08/17/2007
Toluene	LCS 838	112	(80-120)			750 ug/Kg	08/17/2007
Ethylbenzene	LCS 774	103	(80-120)			750 ug/Kg	08/17/2007
n-Butylbenzene	LCS 781	104	(80-123)			750 ug/Kg	08/17/2007
Carbon disulfide	LCS 1160	103	(61-135)			1130 ug/Kg	08/17/2007
1,4-Dichlorobenzene	LCS 804	107	(80-120)			750 ug/Kg	08/17/2007
1,2-Dichloroethane	LCS 659	88	(80-133)			750 ug/Kg	08/17/2007
1,3,5-Trimethylbenzene	LCS 781	104	(80-120)			750 ug/Kg	08/17/2007
4-Chlorotoluene	LCS 719	96	(80-120)			750 ug/Kg	08/17/2007
Chlorobenzene	LCS 823	110	(80-122)			750 ug/Kg	08/17/2007
4-Methyl-2-pentanone (MIBK)	LCS 2120	94	(76-120)			2250 ug/Kg	08/17/2007
cis-1,2-Dichloroethene	LCS 909	121	(80-124)			750 ug/Kg	08/17/2007
4-Isopropyltoluene	LCS 764	102	(80-120)			750 ug/Kg	08/17/2007
cis-1,3-Dichloropropene	LCS 785	105	(80-120)			750 ug/Kg	08/17/2007
n-Propylbenzene	LCS 787	105	(80-122)			750 ug/Kg	08/17/2007
Styrene	LCS 787	105	(80-120)			750 ug/Kg	08/17/2007
Dibromomethane	LCS 734	98	(79-126)			750 ug/Kg	08/17/2007
trans-1,3-Dichloropropene	LCS 761	101	(80-120)			750 ug/Kg	08/17/2007
1,2,4-Trichlorobenzene	LCS 753	100	(80-122)			750 ug/Kg	08/17/2007
1,1,2,2-Tetrachloroethane	LCS 692	92	(79-120)			750 ug/Kg	08/17/2007
1,2-Dibromo-3-chloropropane	LCS 675	90	(64-128)			750 ug/Kg	08/17/2007



SGS Ref.# 783807 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep VXX17128
Batch SW5035A
Method
Date 08/17/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Tetrachloroethene	LCS 870	116	(78-124)			750 ug/Kg	08/17/2007
2-Chloroethyl Vinyl Ether	LCS 1080	96	(72-126)			1130 ug/Kg	08/17/2007
Dibromochloromethane	LCS 757	101	(80-122)			750 ug/Kg	08/17/2007
1,3-Dichloropropane	LCS 766	102	(80-120)			750 ug/Kg	08/17/2007
1,2-Dibromoethane	LCS 790	105	(80-121)			750 ug/Kg	08/17/2007
Carbon tetrachloride	LCS 722	96	(73-133)			750 ug/Kg	08/17/2007
1,1,1,2-Tetrachloroethane	LCS 748	100	(78-125)			750 ug/Kg	08/17/2007
Chloroform	LCS 721	96	(80-124)			750 ug/Kg	08/17/2007
Bromobenzene	LCS 816	109	(80-120)			750 ug/Kg	08/17/2007
Chloromethane	LCS 732	98	(68-129)			750 ug/Kg	08/17/2007
1,2,3-Trichloropropane	LCS 779	104	(75-121)			750 ug/Kg	08/17/2007
Bromomethane	LCS 601	80	(52-140)			750 ug/Kg	08/17/2007
Bromochloromethane	LCS 831	111	(78-125)			750 ug/Kg	08/17/2007
Vinyl chloride	LCS 751	100	(78-125)			750 ug/Kg	08/17/2007
Dichlorodifluoromethane	LCS 938	125	(67-135)			750 ug/Kg	08/17/2007
Chloroethane	LCS 653	87	(53-141)			750 ug/Kg	08/17/2007
sec-Butylbenzene	LCS 810	108	(80-120)			750 ug/Kg	08/17/2007
Bromodichloromethane	LCS 742	99	(80-126)			750 ug/Kg	08/17/2007
1,1-Dichloroethene	LCS 784	104	(73-126)			750 ug/Kg	08/17/2007
2-Butanone (MEK)	LCS 2230	99	(70-124)			2250 ug/Kg	08/17/2007



SGS Ref.# 783807 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Methylene chloride	LCS 775	103	(76-124)			750 ug/Kg	08/17/2007
Trichlorofluoromethane	LCS 716	95	(58-172)			750 ug/Kg	08/17/2007
P & M -Xylene	LCS 1620	108	(80-120)			1500 ug/Kg	08/17/2007
Naphthalene	LCS 726	97	(71-121)			750 ug/Kg	08/17/2007
o-Xylene	LCS 807	108	(80-120)			750 ug/Kg	08/17/2007
Bromoform	LCS 759	101	(74-129)			750 ug/Kg	08/17/2007
Xylenes (total)	LCS 2430	108	(80-120)			2250 ug/Kg	08/17/2007
1,2,4-Trimethylbenzene	LCS 780	104	(80-120)			750 ug/Kg	08/17/2007
tert-Butylbenzene	LCS 774	103	(80-120)			750 ug/Kg	08/17/2007
1,1,1-Trichloroethane	LCS 756	101	(77-130)			750 ug/Kg	08/17/2007
1,1-Dichloroethane	LCS 706	94	(80-120)			750 ug/Kg	08/17/2007
2-Chlorotoluene	LCS 754	101	(80-123)			750 ug/Kg	08/17/2007
Trichloroethene	LCS 825	110	(80-122)			750 ug/Kg	08/17/2007
trans-1,2-Dichloroethene	LCS 872	116	(80-126)			750 ug/Kg	08/17/2007
1,2-Dichlorobenzene	LCS 739	99	(80-120)			750 ug/Kg	08/17/2007
2,2-Dichloropropane	LCS 784	105	(80-134)			750 ug/Kg	08/17/2007
Hexachlorobutadiene	LCS 760	101	(78-133)			750 ug/Kg	08/17/2007
Isopropylbenzene (Cumene)	LCS 763	102	(80-120)			750 ug/Kg	08/17/2007
2-Hexanone	LCS 1950	87	(63-125)			2250 ug/Kg	08/17/2007
1,2-Dichloropropane	LCS 755	101	(80-120)			750 ug/Kg	08/17/2007
1,1-Dichloropropene	LCS 767	102	(80-124)			750 ug/Kg	08/17/2007



SGS Ref.# 783807 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method SW5035A
Date 08/17/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,1,2-Trichloroethane	LCS	763	102	(82-120)		750 ug/Kg	08/17/2007
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1,3-Dichlorobenzene	LCS	768	102	(80-120)		750 ug/Kg	08/17/2007
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1,2,3-Trichlorobenzene	LCS	749	100	(77-126)		750 ug/Kg	08/17/2007
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Surrogates

1,2-Dichloroethane-D4 <surr>	LCS		89	(80-137)			08/17/2007
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Toluene-d8 <surr>	LCS		103	(80-122)			08/17/2007
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4-Bromofluorobenzene <surr>	LCS		99	(42-147)			08/17/2007
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Batch VMS9280
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 783903 Lab Control Sample

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19341
Method METHOD
Date 08/20/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:

1074088001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury LCS 4.01 100 (85-115) 4 ug/L 08/20/2007

Batch MCV3692
Method SW7470A/E245.1
Instrument PSA Millennium mercury AA



SGS Ref.# 784140 Lab Control Sample

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19352
Method SW3050B
Date 08/21/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS							
Arsenic	LCS 49.1	98	(80-120)			50 mg/Kg	08/21/2007
Barium	LCS 48.4	97	(80-120)			50 mg/Kg	08/21/2007
Cadmium	LCS 49.4	99	(80-120)			50 mg/Kg	08/21/2007
Chromium	LCS 46.6	93	(80-120)			50 mg/Kg	08/21/2007
Lead	LCS 46.7	93	(80-120)			50 mg/Kg	08/21/2007
Selenium	LCS 46.8	94	(80-120)			50 mg/Kg	08/21/2007
Silver	LCS 5.32	106	(80-120)			5 mg/Kg	08/21/2007

Batch MMS5014
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 784646 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19366
Method SW3010A
Date 08/22/2007

QC results affect the following production samples:

1074088001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS							
Arsenic	LCS 1040	104	(80-120)			1000 ug/L	08/27/2007
Barium	LCS 1010	101	(80-120)			1000 ug/L	08/27/2007
Cadmium	LCS 1020	102	(80-120)			1000 ug/L	08/27/2007
Chromium	LCS 1030	103	(80-120)			1000 ug/L	08/27/2007
Lead	LCS 933	93	(80-120)			1000 ug/L	08/27/2007
Selenium	LCS 1050	105	(80-120)			1000 ug/L	08/27/2007
Silver	LCS 107	107	(80-120)			100 ug/L	08/27/2007

Batch MMS5025
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 784659 Lab Control Sample

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19368
Method METHOD
Date 08/22/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury LCS 159 95 (83-118) 167 ug/Kg 08/22/2007

Batch MCV3695
Method SW7471A
Instrument PSA Millennium mercury AA



SGS Ref.# 784830 Lab Control Sample
 784831 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18461
Method SW3520C
Date 08/23/2007

QC results affect the following production samples:

1074088001

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	0.940	94	(75-125)			1 mg/L	08/26/2007
	LCSD	0.989	99		5	(< 20)	1 mg/L	08/26/2007

Surrogates

5a Androstane <surr>	LCS		98	(60-120)				08/26/2007
	LCSD		102		5			08/26/2007

Batch XFC7538
Method AK102
Instrument HP 5890 Series II FID SV D F

Residual Range Organics	LCS	1.09	109	(60-120)			1 mg/L	08/26/2007
	LCSD	0.984	98		11	(< 20)	1 mg/L	08/26/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		107	(60-120)				08/26/2007
	LCSD		109		3			08/26/2007

Batch XFC7538
Method AK103
Instrument HP 5890 Series II FID SV D F



SGS Ref.# 785367 Lab Control Sample
 785368 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18471
Method SW3550B
Date 08/25/2007

QC results affect the following production samples:
 1074088002

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	25.7 J	79	(75-125)		32.4 mg/Kg	08/30/2007
	LCSD	25.8 J	79		0	(< 20)	32.5 mg/Kg 08/30/2007

Surrogates

5a Androstane <surr>	LCS		84	(60-120)			08/30/2007
	LCSD		82		3		08/30/2007

Batch XFC7550
Method AK102
Instrument HP 5890 Series II FID SV D F

Residual Range Organics	LCS	37.0	114	(60-120)		32.4 mg/Kg	08/30/2007
	LCSD	36.4	112		2	(< 20)	32.5 mg/Kg 08/30/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		101	(60-120)			08/30/2007
	LCSD		92		9		08/30/2007

Batch XFC7550
Method AK103
Instrument HP 5890 Series II FID SV D F



SGS Ref.# 785386 Lab Control Sample
785387 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17164
Method SW5030B
Date 08/21/2007

QC results affect the following production samples:

1074088001

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

Gasoline Range Organics	LCS	0.203	*				08/21/2007
	LCSD						

Surrogates

4-Bromofluorobenzene <surr>	LCS	93	(50-150)				08/21/2007
	LCSD	93		0			08/21/2007

Batch VFC8543
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 786033 Lab Control Sample

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18488
Method SW3550B
Date 08/28/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS	197	90	(47-120)		219 ug/Kg	08/29/2007
Aroclor-1260	LCS	210	96	(60-130)		219 ug/Kg	08/29/2007
Surrogates							
Decachlorobiphenyl <surr>	LCS		90	(60-125)			08/29/2007

Batch XGC5922
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 787310 Lab Control Sample
787311 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18506
Method SW3510C
Date 08/31/2007

QC results affect the following production samples:

1074088001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS	0.924	92	(62-116)		1 ug/L	09/04/2007
	LCSD	0.865	87		7 (< 25)	1 ug/L	09/04/2007
Aroclor-1260	LCS	0.935	94	(60-113)		1 ug/L	09/04/2007
	LCSD	0.907	91		3 (< 25)	1 ug/L	09/04/2007
Surrogates							
Decachlorobiphenyl <surr>	LCS		103	(42-120)			09/04/2007
	LCSD		98		5		09/04/2007

Batch XGC5929
Method SW8082
Instrument HP 6890 Series II ECD SV H R



SGS Ref.# 783833 Matrix Spike
783834 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch VXX17128
Method Vol. Extraction SW8260 Field I
Date 08/17/2007

Original 783832
Matrix Soil/Solid

QC results affect the following production samples:

1074088002, 1074088003

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Methyl-t-butyl ether	MS	ND	1210	100	(78-123)			1200 ug/Kg	08/17/2007
	MSD		1190	99		1	(< 20)	1200 ug/Kg	08/17/2007
Batch	VMS9280								
Method	SW8260B								
Instrument	HP 5890 Series II MS1 VMA								

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.#	783833	Matrix Spike	Printed Date/Time	09/07/2007 8:25
	783834	Matrix Spike Duplicate	Prep	VXX17128
			Batch	Vol. Extraction SW8260 Field I
			Method	08/17/2007
Original	783832		Date	
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	823	103	(80-125)			802 ug/Kg	08/17/2007
	MSD		816	102		1	(< 20)	802 ug/Kg	08/17/2007
Toluene	MS	ND	906	113	(80-120)			802 ug/Kg	08/17/2007
	MSD		904	113		0	(< 20)	802 ug/Kg	08/17/2007
Ethylbenzene	MS	ND	799	100	(80-120)			802 ug/Kg	08/17/2007
	MSD		796	99		0	(< 20)	802 ug/Kg	08/17/2007
n-Butylbenzene	MS	ND	824	103	(80-123)			802 ug/Kg	08/17/2007
	MSD		828	103		1	(< 20)	802 ug/Kg	08/17/2007
Carbon disulfide	MS	ND	1190	99	(61-135)			1200 ug/Kg	08/17/2007
	MSD		1170	97		2	(< 20)	1200 ug/Kg	08/17/2007
1,4-Dichlorobenzene	MS	ND	828	103	(80-120)			802 ug/Kg	08/17/2007
	MSD		846	105		2	(< 20)	802 ug/Kg	08/17/2007
1,2-Dichloroethane	MS	ND	692	86	(80-133)			802 ug/Kg	08/17/2007
	MSD		667	83		4	(< 20)	802 ug/Kg	08/17/2007
1,3,5-Trimethylbenzene	MS	ND	833	104	(80-120)			802 ug/Kg	08/17/2007
	MSD		828	103		1	(< 20)	802 ug/Kg	08/17/2007
4-Chlorotoluene	MS	ND	766	96	(80-120)			802 ug/Kg	08/17/2007
	MSD		780	97		2	(< 20)	802 ug/Kg	08/17/2007
Chlorobenzene	MS	ND	896	112	(80-122)			802 ug/Kg	08/17/2007
	MSD		834	104		7	(< 20)	802 ug/Kg	08/17/2007
4-Methyl-2-pentanone (MIBK)	MS	ND	2150	89	(76-120)			2410 ug/Kg	08/17/2007
	MSD		2160	90		0	(< 20)	2410 ug/Kg	08/17/2007
cis-1,2-Dichloroethene	MS	ND	894	111	(80-124)			802 ug/Kg	08/17/2007
	MSD		866	108		3	(< 20)	802 ug/Kg	08/17/2007
4-Isopropyltoluene	MS	ND	793	99	(80-120)			802 ug/Kg	08/17/2007
	MSD		805	100		2	(< 20)	802 ug/Kg	08/17/2007
cis-1,3-Dichloropropene	MS	ND	802	100	(80-120)			802 ug/Kg	08/17/2007
	MSD		800	100		0	(< 20)	802 ug/Kg	08/17/2007
n-Propylbenzene	MS	ND	831	104	(80-122)			802 ug/Kg	08/17/2007
	MSD		829	103		0	(< 20)	802 ug/Kg	08/17/2007
Styrene	MS	ND	812	101	(80-120)			802 ug/Kg	08/17/2007
	MSD		819	102		1	(< 20)	802 ug/Kg	08/17/2007
Dibromomethane	MS	ND	738	92	(79-126)			802 ug/Kg	08/17/2007
	MSD		734	91		1	(< 20)	802 ug/Kg	08/17/2007
trans-1,3-Dichloropropene	MS	ND	800	100	(80-120)			802 ug/Kg	08/17/2007
	MSD		797	99		0	(< 20)	802 ug/Kg	08/17/2007
1,2,4-Trichlorobenzene	MS	ND	775	97	(80-122)			802 ug/Kg	08/17/2007
	MSD		803	100		4	(< 20)	802 ug/Kg	08/17/2007
1,1,2,2-Tetrachloroethane	MS	ND	721	90	(79-120)			802 ug/Kg	08/17/2007
	MSD		718	90		0	(< 20)	802 ug/Kg	08/17/2007



SGS Ref.#	783833	Matrix Spike	Printed Date/Time	09/07/2007 8:25
	783834	Matrix Spike Duplicate	Prep	VXX17128
			Batch	Vol. Extraction SW8260 Field I
			Method	08/17/2007
Original	783832		Date	
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	MS	ND	712	89	(64-128)			802 ug/Kg	08/17/2007
	MSD		716	89		1	(< 20)	802 ug/Kg	08/17/2007
Tetrachloroethene	MS	ND	874	109	(78-124)			802 ug/Kg	08/17/2007
	MSD		895	112		2	(< 20)	802 ug/Kg	08/17/2007
2-Chloroethyl Vinyl Ether	MS	ND	1140	95	(72-126)			1200 ug/Kg	08/17/2007
	MSD		1120	93		2	(< 20)	1200 ug/Kg	08/17/2007
Dibromochloromethane	MS	ND	798	99	(80-122)			802 ug/Kg	08/17/2007
	MSD		807	101		1	(< 20)	802 ug/Kg	08/17/2007
1,3-Dichloropropane	MS	ND	781	97	(80-120)			802 ug/Kg	08/17/2007
	MSD		782	97		0	(< 20)	802 ug/Kg	08/17/2007
1,2-Dibromoethane	MS	ND	804	100	(80-121)			802 ug/Kg	08/17/2007
	MSD		808	101		0	(< 20)	802 ug/Kg	08/17/2007
Carbon tetrachloride	MS	ND	726	90	(73-133)			802 ug/Kg	08/17/2007
	MSD		711	89		2	(< 20)	802 ug/Kg	08/17/2007
1,1,1,2-Tetrachloroethane	MS	ND	754	94	(78-125)			802 ug/Kg	08/17/2007
	MSD		757	94		0	(< 20)	802 ug/Kg	08/17/2007
Chloroform	MS	ND	749	93	(80-124)			802 ug/Kg	08/17/2007
	MSD		728	91		3	(< 20)	802 ug/Kg	08/17/2007
Bromobenzene	MS	ND	869	108	(80-120)			802 ug/Kg	08/17/2007
	MSD		872	109		0	(< 20)	802 ug/Kg	08/17/2007
Chloromethane	MS	ND	734	92	(68-129)			802 ug/Kg	08/17/2007
	MSD		715	89		3	(< 20)	802 ug/Kg	08/17/2007
1,2,3-Trichloropropane	MS	ND	786	98	(75-121)			802 ug/Kg	08/17/2007
	MSD		796	99		1	(< 20)	802 ug/Kg	08/17/2007
Bromomethane	MS	ND	647	81	(52-140)			802 ug/Kg	08/17/2007
	MSD		694	87		7	(< 20)	802 ug/Kg	08/17/2007
Bromochloromethane	MS	ND	841	105	(78-125)			802 ug/Kg	08/17/2007
	MSD		828	103		2	(< 20)	802 ug/Kg	08/17/2007
Vinyl chloride	MS	ND	747	93	(78-125)			802 ug/Kg	08/17/2007
	MSD		741	92		1	(< 20)	802 ug/Kg	08/17/2007
Dichlorodifluoromethane	MS	ND	962	120	(67-135)			802 ug/Kg	08/17/2007
	MSD		960	120		0	(< 20)	802 ug/Kg	08/17/2007
Chloroethane	MS	ND	678	85	(53-141)			802 ug/Kg	08/17/2007
	MSD		680	85		0	(< 20)	802 ug/Kg	08/17/2007
sec-Butylbenzene	MS	ND	842	105	(80-120)			802 ug/Kg	08/17/2007
	MSD		852	106		1	(< 20)	802 ug/Kg	08/17/2007
Bromodichloromethane	MS	ND	765	95	(80-126)			802 ug/Kg	08/17/2007
	MSD		750	93		2	(< 20)	802 ug/Kg	08/17/2007
1,1-Dichloroethene	MS	ND	805	100	(73-126)			802 ug/Kg	08/17/2007
	MSD		795	99		1	(< 20)	802 ug/Kg	08/17/2007



SGS Ref.#	783833	Matrix Spike	Printed Date/Time	09/07/2007 8:25
	783834	Matrix Spike Duplicate	Prep	VXX17128
			Batch	Vol. Extraction SW8260 Field I
			Method	08/17/2007
Original	783832		Date	
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
2-Butanone (MEK)	MS	ND	1890	78	(70-124)			2410 ug/Kg	08/17/2007
	MSD		2100	87		11	(< 20)	2410 ug/Kg	08/17/2007
Methylene chloride	MS	ND	823	103	(76-124)			802 ug/Kg	08/17/2007
	MSD		783	98		5	(< 20)	802 ug/Kg	08/17/2007
Trichlorofluoromethane	MS	ND	727	91	(58-172)			802 ug/Kg	08/17/2007
	MSD		699	87		4	(< 20)	802 ug/Kg	08/17/2007
P & M -Xylene	MS	ND	1670	104	(80-120)			1600 ug/Kg	08/17/2007
	MSD		1650	103		1	(< 20)	1600 ug/Kg	08/17/2007
Naphthalene	MS	ND	751	94	(71-121)			802 ug/Kg	08/17/2007
	MSD		769	96		3	(< 20)	802 ug/Kg	08/17/2007
o-Xylene	MS	ND	807	101	(80-120)			802 ug/Kg	08/17/2007
	MSD		828	103		3	(< 20)	802 ug/Kg	08/17/2007
Bromoform	MS	ND	790	98	(74-129)			802 ug/Kg	08/17/2007
	MSD		795	99		1	(< 20)	802 ug/Kg	08/17/2007
Xylenes (total)	MS	ND	2480	103	(80-120)			2410 ug/Kg	08/17/2007
	MSD		2480	103		0		2410 ug/Kg	08/17/2007
1,2,4-Trimethylbenzene	MS	ND	810	101	(80-120)			802 ug/Kg	08/17/2007
	MSD		806	100		1	(< 20)	802 ug/Kg	08/17/2007
tert-Butylbenzene	MS	ND	807	101	(80-120)			802 ug/Kg	08/17/2007
	MSD		830	103		3	(< 20)	802 ug/Kg	08/17/2007
1,1,1-Trichloroethane	MS	ND	753	94	(77-130)			802 ug/Kg	08/17/2007
	MSD		745	93		1	(< 20)	802 ug/Kg	08/17/2007
1,1-Dichloroethane	MS	ND	716	89	(80-120)			802 ug/Kg	08/17/2007
	MSD		702	88		2	(< 20)	802 ug/Kg	08/17/2007
2-Chlorotoluene	MS	ND	776	97	(80-123)			802 ug/Kg	08/17/2007
	MSD		800	100		3	(< 20)	802 ug/Kg	08/17/2007
Trichloroethene	MS	149	1070	114	(80-122)			802 ug/Kg	08/17/2007
	MSD		1010	108		5	(< 20)	802 ug/Kg	08/17/2007
trans-1,2-Dichloroethene	MS	ND	866	108	(80-126)			802 ug/Kg	08/17/2007
	MSD		871	109		1	(< 20)	802 ug/Kg	08/17/2007
1,2-Dichlorobenzene	MS	ND	780	97	(80-120)			802 ug/Kg	08/17/2007
	MSD		781	97		0	(< 20)	802 ug/Kg	08/17/2007
2,2-Dichloropropane	MS	ND	741	92	(80-134)			802 ug/Kg	08/17/2007
	MSD		745	93		1	(< 20)	802 ug/Kg	08/17/2007
Hexachlorobutadiene	MS	ND	764	95	(78-133)			802 ug/Kg	08/17/2007
	MSD		791	99		3	(< 20)	802 ug/Kg	08/17/2007
Isopropylbenzene (Cumene)	MS	ND	795	99	(80-120)			802 ug/Kg	08/17/2007
	MSD		788	98		1	(< 20)	802 ug/Kg	08/17/2007
2-Hexanone	MS	ND	1930	80	(63-125)			2410 ug/Kg	08/17/2007
	MSD		1950	81		1	(< 20)	2410 ug/Kg	08/17/2007



SGS Ref.#	783833	Matrix Spike	Printed Date/Time	09/07/2007 8:25
	783834	Matrix Spike Duplicate	Prep	VXX17128
			Batch	Vol. Extraction SW8260 Field I
			Method	08/17/2007
Original	783832		Date	
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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Volatile Gas Chromatography/Mass Spectroscopy

1,2-Dichloropropane	MS	ND	791	99	(80-120)			802 ug/Kg	08/17/2007
	MSD		754	94		5	(< 20)	802 ug/Kg	08/17/2007
1,1-Dichloropropene	MS	ND	774	97	(80-124)			802 ug/Kg	08/17/2007
	MSD		773	96		0	(< 20)	802 ug/Kg	08/17/2007
1,1,2-Trichloroethane	MS	ND	788	98	(82-120)			802 ug/Kg	08/17/2007
	MSD		758	95		4	(< 20)	802 ug/Kg	08/17/2007
1,3-Dichlorobenzene	MS	ND	812	101	(80-120)			802 ug/Kg	08/17/2007
	MSD		815	102		0	(< 20)	802 ug/Kg	08/17/2007
1,2,3-Trichlorobenzene	MS	ND	762	95	(77-126)			802 ug/Kg	08/17/2007
	MSD		793	99		4	(< 20)	802 ug/Kg	08/17/2007

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		703	88	(80-137)				08/17/2007
	MSD		707	88		1			08/17/2007
Toluene-d8 <surr>	MS		792	99	(80-122)				08/17/2007
	MSD		819	102		3			08/17/2007
4-Bromofluorobenzene <surr>	MS		1970	92	(42-147)				08/17/2007
	MSD		1980	93		0			08/17/2007

Batch VMS9280
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 783904 Matrix Spike
783905 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19341
Method Digestion Mercury (W)
Date 08/20/2007

Original 1073871005
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:
1074088001

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury	MS	ND	8.09	101	(85-115)			8	ug/L 08/20/2007
	MSD		8.01	100		1	(< 15)	8	ug/L 08/20/2007

Batch MCV3692
Method SW7470A/E245.1
Instrument PSA Millennium mercury AA



SGS Ref.# 783910 Matrix Spike
783911 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19341
Method Digestion Mercury (W)
Date 08/20/2007

Original 1074177004
Matrix Soil/Solid

QC results affect the following production samples:
1074088001

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury	MS	ND	79	99	(85-115)			80	ug/L 08/20/2007
	MSD		79.1	99		0	(< 15)	80	ug/L 08/20/2007

Batch MCV3692
Method SW7470A/E245.1
Instrument PSA Millennium mercury AA



SGS Ref.# 784141 Matrix Spike
784142 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19352
Method Soils/Solids Digest for Metals b
Date 08/21/2007

Original 1074044002
Matrix Soil/Solid

QC results affect the following production samples:

1074088002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals by ICP/MS

Barium	MS	110	420	176* (80-120)				176 mg/Kg	08/21/2007
	MSD		434	186*		3	(< 20)	174 mg/Kg	08/21/2007

Batch MMS5014
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 784143 Bench Spike DIGESTED

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19352
Method Soils/Solids Digest for Metals b
Date 08/21/2007

Original 1074044002
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals by ICP/MS

Barium BND 110 1840 99 (75-125) 1740 mg/Kg 08/21/2007

Batch MMS5014
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 784647 Matrix Spike
 784648 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
 Prep Batch MXX19366
 Method 3010 H2O Digest for Metals ICI
 Date 08/22/2007

Original 1074182003
 Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:
 1074088001

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS									
Arsenic	MS	ND	1030	103	(80-120)			1000	ug/L 08/27/2007
	MSD		1070	107		3	(< 15)	1000	ug/L 08/27/2007
Barium	MS	1.65 J	1010	101	(80-120)			1000	ug/L 08/27/2007
	MSD		1060	106		5	(< 15)	1000	ug/L 08/27/2007
Cadmium	MS	ND	1010	101	(80-120)			1000	ug/L 08/27/2007
	MSD		1060	106		4	(< 15)	1000	ug/L 08/27/2007
Chromium	MS	7.43	1040	103	(80-120)			1000	ug/L 08/27/2007
	MSD		1060	105		2	(< 15)	1000	ug/L 08/27/2007
Lead	MS	5.10	956	95	(80-120)			1000	ug/L 08/27/2007
	MSD		996	99		4	(< 15)	1000	ug/L 08/27/2007
Selenium	MS	ND	1010	101	(80-120)			1000	ug/L 08/27/2007
	MSD		1080	108		6	(< 15)	1000	ug/L 08/27/2007
Silver	MS	ND	104	104	(80-120)			100	ug/L 08/27/2007
	MSD		113	113		9	(< 15)	100	ug/L 08/27/2007

Batch MMS5025
 Method SW6020
 Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 784660 Matrix Spike
784661 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch MXX19368
Method Digestion Mercury (S)
Date 08/22/2007

Original 1073977002
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury	MS	ND	404	118	(83-118)			343	ug/Kg 08/22/2007
	MSD		408	117		1	(< 20)	347	ug/Kg 08/22/2007

Batch MCV3695
Method SW7471A
Instrument PSA Millennium mercury AA



SGS Ref.# 786034 Matrix Spike
786035 Matrix Spike Duplicate

Printed Date/Time 09/07/2007 8:25
Prep Batch XXX18488
Method Sonication Extraction Soil SW8
Date 08/28/2007

Original 1074088002
Matrix Soil/Solid

QC results affect the following production samples:
1074088002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	403	98	(47-120)			409 ug/Kg	08/29/2007
	MSD		429	105		6	(< 30)	409 ug/Kg	08/29/2007
Aroclor-1260	MS	ND	522	127	(60-130)			409 ug/Kg	08/29/2007
	MSD		455	111		13	(< 30)	409 ug/Kg	08/29/2007
Surrogates									
Decachlorobiphenyl <surr>	MS		356	87	(60-125)				08/29/2007
	MSD		371	91		4			08/29/2007

Batch XGC5922
Method SW8082
Instrument HP 5890 Series II ECD SV I F

1074088



SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

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

2043 Westport Center Drive
St. Louis, MO 63146-3564
(314) 699-9660

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

2355 Hill Road
Fairbanks, AK 99709
(907) 479-0600

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

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

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

CHAIN-OF-CUSTODY RECORD

Laboratory SGS
Attn: Barbara

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

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	DRO/RPO (AK 102-103)	GRO+VOCs (AK 101+EPA 8210)	PCBs (EPA 808)	RCRA Metals (EPA 8210)	Total Number of Containers	Remarks/Matrix
01886-SS1	① A-H	9:30	8/14/07	✓	✓	✓	✓	✓	✓	8	Water
" - Sed 1	② A-C	9:45	"	✓	✓	✓	✓	✓	✓	3	Soil (Sediment)
STB	③ A	9:30	"				VOCs only			1	Soil trip blank
WTB	④ A-C	9:30	"				VOCs only			1	Water trip blank

Project Information		Sample Receipt	
Project Number: <u>32-1-01886</u>	Total Number of Containers		
Project Name: <u>Anch. Hatchery</u>	COC Seals/Intact? Y/N/NA		
Contact: <u>Bill Burgess</u>	Received Good Cond./Cold		
Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Delivery Method:		
Sampler: <u>Joe Thomas</u>	(attach shipping bill, if any)		

Instructions	
Requested Turnaround Time: <u>Standard</u>	
Special Instructions: <u>Level I deliverables.</u>	

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:	Time:	Signature:	Time:
Printed Name: <u>Joe Thomas</u>	Date: <u>8/14/07</u>	Printed Name:	Date:	Printed Name:	Date:
Company: <u>Shannon & Wilson</u>		Company:		Company:	
Received By: 1.		Received By: 2.		Received By: 3.	
Signature: <u>[Signature]</u>	Time:	Signature:	Time:	Signature: <u>[Signature]</u>	Time: <u>1055</u>
Printed Name:	Date:	Printed Name:	Date:	Printed Name: <u>Joe Rudi</u>	Date: <u>8/14/07</u>
Company:		Company:		Company: <u>SGS</u>	<u>C=15.3</u> <u>TB=7.6</u>

SGS

1074088



SAMPLE RECEIPT FORM (page 2)

SGS WO#:

#	Container ID	Matrix	Test	QC	TB	Container Volume								Container Type						Preservative															
						1L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other	AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	None	HCl	HNO ₃	H ₂ SO ₄	MeOH	Na ₂ S ₂ O ₃	NaOH	Other					
1	A	1	GRO																																
	B-C	1	VOC 8260																																
	D	1	RCA metals																																
	E-F	1	DRO/RED																																
	G-H	1	PCB 3082																																
2	A	2	GRO, VOC 8260																																
	B	2	PCB, RCA metals																																
	C	2	DRO/RED																																
3	A	2	GRO, VOC 8260																																
4	A	1	GRO																																
	B-C	1	VOC 8260																																

Bottle Totals	4	1	6	1	3
---------------	---	---	---	---	---

Completed by:  Date: 8/14/07

Form # F004r14 : 05/17/04



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?
Overtemp

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: 8/28/07

Received Date: 8/14/07

Received Time: 1055

Is date/time conversion necessary?

of hours to AK Local Time: _____

Thermometer ID: 70D, 69D

Cooler ID	Temp Blank	Cooler Temp
<u>1</u>	<u>7.6</u> °C	<u>15.3</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: _____

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 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?

Airbill # _____

Additional Sample Remarks: (if applicable)

Extra Sample Volume?

Limited Sample Volume? Geo/VOCs

Field preserved for volatiles? _____

Field-filtered for dissolved? _____

Lab-filtered for dissolved? _____

Ref-Lab required? _____

Foreign Soil? _____

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): [Signature] (print): Brian M. Edgington

Login proof (check one): waived required performed by: _____

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 Environmental Services - WO#1074088

- 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:

NA

2. Chain of Custody (COC)

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

Yes No

Comments:

- b. Correct analyses requested?

Yes No

Comments:

3. Laboratory Sample Receipt Documentation

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

Yes No

Comments:

Temperature blank 7.6 degrees C and cooler temperature 15.3 degrees C

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

Yes No

Comments:

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

Yes No

Comments:

No undesirable sample conditions noted

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:

Low volume for GRO/VOC analysis for Sample SS1 and WTB (only 3 VOAs instead of 6 for each sample)

e. Data quality or usability affected? Explain.

Comments:

The data quality/usability should not be effected. The analytical samples were collected within 1.5-2 hours of delivery to laboratory.

4. Case Narrative

a. Present and understandable?

Yes No Comments:

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

Yes No Comments:

See case narrative for full list

c. Were all corrective actions documented?

Yes No Comments:

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

Comments:

Data quality/usability should not be affected.

5. Samples Results

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

Yes No Comments:

b. All applicable holding times met?

Yes No Comments:

c. All soils reported on a dry weight basis?

Yes No Comments:

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

Yes No Comments:

DRO PQL for Soil Sample SS1 is greater than the applicable cleanup level (250 mg/kg)

e. Data quality or usability affected? Explain.

Comments:

Concentration of DRO in sample is unknown below PQL of 313 mg/kg, no J-flagged estimate concentration reported

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:

NA

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

Yes No Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

No

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

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

Yes No Comments:

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

Yes No Comments:

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

Yes No Comments:

%R high for chloromethane and bromoform in water

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:

Samples SS1 and WTB

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

Yes No Comments:

vii. Data quality or usability affected? Explain.

Comments:

No, %R high for chloromethane and bromoform but MS/MSD meet DQOs and these analytes were not detected in the project samples.

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

e. Field Duplicate

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

Yes No Comments:

No field duplicate submitted under this work order - duplicate samples were collected as part of this project and submitted under a separate work order.

ii. Submitted blind to lab?

Yes No Comments:

NA

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

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

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No Comments:

NA

iv. Data quality or usability affected? Explain.

Comments:

NA

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? Explain.

Comments:

NA

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

a. Defined and appropriate?

Yes No

Comments:

Lab specific flags defined on page 4 of laboratory report

Completed by:

Jessica Busey

Title:

Environmental Scientist III

Date:

October 24, 2007

CS Report Name:

Site Characterization, Anchorage Fish Hatchery, Anchorage, Alaska

Report Date:

October 2007

Consultant Firm:

Shannon & Wilson, Inc

Laboratory Name:

SGS Environmental Services

Laboratory Report Number:

WO 1074088

ADEC File Number:

none

ADEC RecKey Number:

none



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 32-1-01886 Anch Fish Hatchery
Client: Shannon & Wilson Inc.
SGS Work Order: 1074357

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt 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.



Case Narrative

Client SHANNOT Shannon & Wilson Inc.
Workorder 1074357 32-1-01886 Anch Fish Hatchery

Printed Date/Time 9/13/2007 8:20

Sample ID **Client Sample ID**

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

1074357001 PS 01886-TW1
AK103 - Unknown hydrocarbon with several peaks is present.
AK103 - Sample result may be biased high due to carry over.

786676 MS 1073895023(786668MS)
8260B - 2-chloroethyl vinyl ether MS recovery does not meet QC goals due to sample pH. The acid preservative hydrolyzes this analyte, precluding the ability to measure it in the QC or field samples.

786677 MSD 1073895023(786668MSD)
8260B - 2-chloroethyl vinyl ether MSD recovery and RPD does not meet QC goals due to sample pH. The acid preservative hydrolyzes this analyte, precluding the ability to measure it in the QC or field samples.

786679 CCV CCV for HBN 190675 [VMS/9312]
8260 - Continuing calibration verification (CCV) recovery for acetone does not meet QC criteria (bias high). This analyte was not detected in associated samples.



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>

Joe Thomas
Shannon & Wilson Inc.
5430 Fairbanks St., Ste. 3
Anchorage, AK 99518

Work Order:	1074357	
	32-1-01886 Anch Fish Hatchery	Released by:
Client:	Shannon & Wilson Inc.	
Report Date:	September 13, 2007	

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 001828 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.# 1074357001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID 01886-TW1
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Sample Remarks:

AK103 - Unknown hydrocarbon with several peaks is present.
AK103 - Sample result may be biased high due to carry over.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	ND	0.100	mg/L	AK101	B		08/30/07	08/30/07	HM
Surrogates									
4-Bromofluorobenzene <surr>	72.8		%	AK101	B	50-150	08/30/07	08/30/07	HM
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	ND	0.314	mg/L	AK102	G		09/06/07	09/11/07	JE
Residual Range Organics	0.752	0.524	mg/L	AK103	G		09/06/07	09/11/07	JE
Surrogates									
5a Androstane <surr>	109		%	AK102	G	50-150	09/06/07	09/11/07	JE
n-Triacontane-d62 <surr>	103		%	AK103	G	50-150	09/06/07	09/11/07	JE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	ND	0.400	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Toluene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Ethylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
n-Butylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Carbon disulfide	ND	2.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,4-Dichlorobenzene	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2-Dichloroethane	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,3,5-Trimethylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
4-Chlorotoluene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Chlorobenzene	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
cis-1,2-Dichloroethene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH



SGS Ref.# 1074357001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID 01886-TW1
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
4-Isopropyltoluene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
cis-1,3-Dichloropropene	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
n-Propylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Styrene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Dibromomethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
trans-1,3-Dichloropropene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2,4-Trichlorobenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1,2,2-Tetrachloroethane	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2-Dibromo-3-chloropropane	ND	2.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Methyl-t-butyl ether	ND	5.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Tetrachloroethene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
2-Chloroethyl Vinyl Ether	ND	10.0	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Dibromochloromethane	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,3-Dichloropropane	ND	0.400	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2-Dibromoethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Carbon tetrachloride	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Chloroform	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Bromobenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2,3-Trichloropropane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Chloromethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Bromomethane	ND	3.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Bromochloromethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Vinyl chloride	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Dichlorodifluoromethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Chloroethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
sec-Butylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Bromodichloromethane	ND	0.500	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1-Dichloroethene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
2-Butanone (MEK)	ND	10.0	ug/L	SW8260B	A		08/28/07	08/29/07	DSH



SGS Ref.# 1074357001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID 01886-TW1
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Methylene chloride	ND	5.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Trichlorofluoromethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
P & M -Xylene	ND	2.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Naphthalene	ND	2.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
o-Xylene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Bromoform	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Xylenes (total)	ND	2.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2,4-Trimethylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
tert-Butylbenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1,1-Trichloroethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1-Dichloroethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
2-Chlorotoluene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Trichloroethene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
trans-1,2-Dichloroethene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2-Dichlorobenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
2,2-Dichloropropane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Hexachlorobutadiene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Isopropylbenzene (Cumene)	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
2-Hexanone	ND	10.0	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2-Dichloropropane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1-Dichloropropene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,1,2-Trichloroethane	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,3-Dichlorobenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
1,2,3-Trichlorobenzene	ND	1.00	ug/L	SW8260B	A		08/28/07	08/29/07	DSH
Surrogates									
1,2-Dichloroethane-D4 <surr>	104		%	SW8260B	A	73-120	08/28/07	08/29/07	DSH
Toluene-d8 <surr>	104		%	SW8260B	A	80-120	08/28/07	08/29/07	DSH
4-Bromofluorobenzene <surr>	100		%	SW8260B	A	76-120	08/28/07	08/29/07	DSH



SGS Ref.# 1074357002
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID Trip Blank
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	ND	0.100	mg/L	AK101	B		08/30/07	08/30/07	HM
Surrogates									
4-Bromofluorobenzene <surrogate>	79.2		%	AK101	B	50-150	08/30/07	08/30/07	HM
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	ND	0.400	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Toluene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Ethylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
n-Butylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Carbon disulfide	ND	2.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,4-Dichlorobenzene	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2-Dichloroethane	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,3,5-Trimethylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
4-Chlorotoluene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Chlorobenzene	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
cis-1,2-Dichloroethene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
4-Isopropyltoluene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
cis-1,3-Dichloropropene	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
n-Propylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Styrene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Dibromomethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
trans-1,3-Dichloropropene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2,4-Trichlorobenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1,2,2-Tetrachloroethane	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2-Dibromo-3-chloropropane	ND	2.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH



SGS Ref.# 1074357002
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID Trip Blank
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Methyl-t-butyl ether	ND	5.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Tetrachloroethene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
2-Chloroethyl Vinyl Ether	ND	10.0	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Dibromochloromethane	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,3-Dichloropropane	ND	0.400	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2-Dibromoethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Carbon tetrachloride	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Chloroform	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Bromobenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2,3-Trichloropropane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Chloromethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Bromomethane	ND	3.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Bromochloromethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Vinyl chloride	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Dichlorodifluoromethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Chloroethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
sec-Butylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Bromodichloromethane	ND	0.500	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1-Dichloroethene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
2-Butanone (MEK)	ND	10.0	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Methylene chloride	ND	5.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Trichlorofluoromethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
P & M -Xylene	ND	2.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Naphthalene	ND	2.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
o-Xylene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Bromoform	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Xylenes (total)	ND	2.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2,4-Trimethylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
tert-Butylbenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH



SGS Ref.# 1074357002
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Client Sample ID Trip Blank
Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time
Printed Date/Time 09/13/2007 8:20
Collected Date/Time 08/23/2007 14:15
Received Date/Time 08/25/2007 13:20
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,1,1-Trichloroethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1-Dichloroethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
2-Chlorotoluene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Trichloroethene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
trans-1,2-Dichloroethene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2-Dichlorobenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
2,2-Dichloropropane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Hexachlorobutadiene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Isopropylbenzene (Cumene)	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
2-Hexanone	ND	10.0	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2-Dichloropropane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1-Dichloropropene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,1,2-Trichloroethane	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,3-Dichlorobenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
1,2,3-Trichlorobenzene	ND	1.00	ug/L	SW8260B	B		08/28/07	08/28/07	DSH
Surrogates									
1,2-Dichloroethane-D4 <surr>	105		%	SW8260B	B	73-120	08/28/07	08/28/07	DSH
Toluene-d8 <surr>	102		%	SW8260B	B	80-120	08/28/07	08/28/07	DSH
4-Bromofluorobenzene <surr>	99.8		%	SW8260B	B	76-120	08/28/07	08/28/07	DSH



SGS Ref.# 786674 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method SW5030B
Date 08/28/2007

QC results affect the following production samples:
1074357001, 1074357002

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 786674 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method SW5030B
Date 08/28/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Benzene	ND	0.400	0.120	ug/L	08/28/07
Toluene	ND	1.00	0.310	ug/L	08/28/07
Ethylbenzene	ND	1.00	0.310	ug/L	08/28/07
n-Butylbenzene	ND	1.00	0.310	ug/L	08/28/07
Carbon disulfide	ND	2.00	0.620	ug/L	08/28/07
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	08/28/07
1,2-Dichloroethane	ND	0.500	0.150	ug/L	08/28/07
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	08/28/07
4-Chlorotoluene	ND	1.00	0.310	ug/L	08/28/07
Chlorobenzene	ND	0.500	0.150	ug/L	08/28/07
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	08/28/07
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/28/07
4-Isopropyltoluene	ND	1.00	0.310	ug/L	08/28/07
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	08/28/07
n-Propylbenzene	ND	1.00	0.310	ug/L	08/28/07
Styrene	ND	1.00	0.310	ug/L	08/28/07
Dibromomethane	ND	1.00	0.310	ug/L	08/28/07
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	08/28/07
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	08/28/07
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/28/07
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	08/28/07
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	08/28/07
Tetrachloroethene	ND	1.00	0.310	ug/L	08/28/07
2-Chloroethyl Vinyl Ether	ND	10.0	3.10	ug/L	08/28/07
Dibromochloromethane	ND	0.500	0.150	ug/L	08/28/07
1,3-Dichloropropane	ND	0.400	0.120	ug/L	08/28/07
1,2-Dibromoethane	ND	1.00	0.310	ug/L	08/28/07
Carbon tetrachloride	ND	1.00	0.310	ug/L	08/28/07
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/28/07
Chloroform	ND	1.00	0.300	ug/L	08/28/07
Bromobenzene	ND	1.00	0.310	ug/L	08/28/07
Chloromethane	ND	1.00	0.310	ug/L	08/28/07
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	08/28/07
Bromomethane	ND	3.00	0.940	ug/L	08/28/07
Bromochloromethane	ND	1.00	0.310	ug/L	08/28/07
Vinyl chloride	ND	1.00	0.310	ug/L	08/28/07
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	08/28/07
Chloroethane	ND	1.00	0.310	ug/L	08/28/07
sec-Butylbenzene	ND	1.00	0.310	ug/L	08/28/07



SGS Ref.# 786674 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method SW5030B
Date 08/28/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Bromodichloromethane	ND	0.500	0.150	ug/L	08/28/07
1,1-Dichloroethene	ND	1.00	0.310	ug/L	08/28/07
2-Butanone (MEK)	ND	10.0	3.10	ug/L	08/28/07
Methylene chloride	ND	5.00	1.00	ug/L	08/28/07
Trichlorofluoromethane	ND	1.00	0.310	ug/L	08/28/07
P & M -Xylene	ND	2.00	0.620	ug/L	08/28/07
Naphthalene	ND	2.00	0.620	ug/L	08/28/07
o-Xylene	ND	1.00	0.310	ug/L	08/28/07
Bromoform	ND	1.00	0.310	ug/L	08/28/07
Xylenes (total)	ND	2.00	1.00	ug/L	08/28/07
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	08/28/07
tert-Butylbenzene	ND	1.00	0.310	ug/L	08/28/07
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	08/28/07
1,1-Dichloroethane	ND	1.00	0.310	ug/L	08/28/07
2-Chlorotoluene	ND	1.00	0.310	ug/L	08/28/07
Trichloroethene	ND	1.00	0.310	ug/L	08/28/07
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/28/07
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	08/28/07
2,2-Dichloropropane	ND	1.00	0.310	ug/L	08/28/07
Hexachlorobutadiene	ND	1.00	0.310	ug/L	08/28/07
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	08/28/07
2-Hexanone	ND	10.0	3.10	ug/L	08/28/07
1,2-Dichloropropane	ND	1.00	0.310	ug/L	08/28/07
1,1-Dichloropropene	ND	1.00	0.310	ug/L	08/28/07
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	08/28/07
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	08/28/07
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	08/28/07

Surrogates

1,2-Dichloroethane-D4 <surr>	103	73-120		%	08/28/07
Toluene-d8 <surr>	103	80-120		%	08/28/07
4-Bromofluorobenzene <surr>	101	76-120		%	08/28/07

Batch VMS9312
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



SGS Ref.# 787238 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17208
Method SW5030B
Date 08/30/2007

QC results affect the following production samples:
1074357001, 1074357002

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

Gasoline Range Organics	ND	0.100	0.0100	mg/L	08/30/07
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Surrogates

4-Bromofluorobenzene <surr>	98.7	50-150		%	08/30/07
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Batch VFC8560
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 788532 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch XXX18530
Method SW3520C
Date 09/06/2007

QC results affect the following production samples:
1074357001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	0.300	0.0600	mg/L	09/08/07
Surrogates					
5a Androstane <surr>	110	60-120		%	09/08/07
Batch	XFC7574				
Method	AK102				
Instrument	HP 5890 Series II FID SV C F				
Residual Range Organics	0.178 J	0.500	0.100	mg/L	09/08/07
Surrogates					
n-Triacontane-d62 <surr>	115	60-120		%	09/08/07
Batch	XFC7574				
Method	AK103				
Instrument	HP 5890 Series II FID SV C F				



SGS Ref.# 786675 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method SW5030B
Date 08/28/2007

QC results affect the following production samples:

1074357001, 1074357002

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 786675 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch Method Date VXX17194
 SW5030B
 08/28/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 30.1	100	(80-120)			30 ug/L	08/28/2007
Toluene	LCS 27.5	92	(77-120)			30 ug/L	08/28/2007
Ethylbenzene	LCS 28.1	94	(80-120)			30 ug/L	08/28/2007
n-Butylbenzene	LCS 29.8	99	(80-124)			30 ug/L	08/28/2007
Carbon disulfide	LCS 44.6	99	(72-123)			45 ug/L	08/28/2007
1,4-Dichlorobenzene	LCS 26.8	89	(80-120)			30 ug/L	08/28/2007
1,2-Dichloroethane	LCS 30.4	101	(80-129)			30 ug/L	08/28/2007
1,3,5-Trimethylbenzene	LCS 27.9	93	(80-128)			30 ug/L	08/28/2007
4-Chlorotoluene	LCS 31.2	104	(79-128)			30 ug/L	08/28/2007
Chlorobenzene	LCS 29.4	98	(80-120)			30 ug/L	08/28/2007
4-Methyl-2-pentanone (MIBK)	LCS 98.6	110	(69-134)			90 ug/L	08/28/2007
cis-1,2-Dichloroethene	LCS 29.2	97	(80-125)			30 ug/L	08/28/2007
4-Isopropyltoluene	LCS 29.4	98	(80-125)			30 ug/L	08/28/2007
cis-1,3-Dichloropropene	LCS 29.5	98	(80-120)			30 ug/L	08/28/2007
n-Propylbenzene	LCS 26.5	88	(80-129)			30 ug/L	08/28/2007
Styrene	LCS 28.1	94	(80-120)			30 ug/L	08/28/2007
Dibromomethane	LCS 28.3	94	(80-120)			30 ug/L	08/28/2007
trans-1,3-Dichloropropene	LCS 28.7	96	(80-124)			30 ug/L	08/28/2007
1,2,4-Trichlorobenzene	LCS 28.6	95	(80-120)			30 ug/L	08/28/2007
1,1,2,2-Tetrachloroethane	LCS 29.5	98	(76-123)			30 ug/L	08/28/2007
1,2-Dibromo-3-chloropropane	LCS 28.5	95	(73-130)			30 ug/L	08/28/2007



SGS Ref.# 786675 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch Method Date VXX17194 SW5030B 08/28/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Methyl-t-butyl ether	LCS 42.8	95	(80-120)			45 ug/L	08/28/2007
Tetrachloroethene	LCS 25.9	86	(79-122)			30 ug/L	08/28/2007
2-Chloroethyl Vinyl Ether	LCS 46.5	103	(58-140)			45 ug/L	08/28/2007
Dibromochloromethane	LCS 30.4	101	(80-120)			30 ug/L	08/28/2007
1,3-Dichloropropane	LCS 29.5	99	(80-121)			30 ug/L	08/28/2007
1,2-Dibromoethane	LCS 27.4	91	(80-120)			30 ug/L	08/28/2007
Carbon tetrachloride	LCS 28.7	96	(80-126)			30 ug/L	08/28/2007
1,1,1,2-Tetrachloroethane	LCS 29.1	97	(80-120)			30 ug/L	08/28/2007
Chloroform	LCS 30.4	101	(80-124)			30 ug/L	08/28/2007
Bromobenzene	LCS 27.3	91	(80-120)			30 ug/L	08/28/2007
Chloromethane	LCS 33.2	111	(67-125)			30 ug/L	08/28/2007
1,2,3-Trichloropropane	LCS 27.0	90	(80-120)			30 ug/L	08/28/2007
Bromomethane	LCS 28.2	94	(30-140)			30 ug/L	08/28/2007
Bromochloromethane	LCS 28.5	95	(77-129)			30 ug/L	08/28/2007
Vinyl chloride	LCS 29.3	98	(72-145)			30 ug/L	08/28/2007
Dichlorodifluoromethane	LCS 35.7	119	(62-153)			30 ug/L	08/28/2007
Chloroethane	LCS 32.4	108	(67-133)			30 ug/L	08/28/2007
sec-Butylbenzene	LCS 29.0	97	(80-120)			30 ug/L	08/28/2007
Bromodichloromethane	LCS 30.8	103	(80-120)			30 ug/L	08/28/2007
1,1-Dichloroethene	LCS 27.1	90	(76-130)			30 ug/L	08/28/2007



SGS Ref.# 786675 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch Method Date VXX17194
 SW5030B
 08/28/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
2-Butanone (MEK)	LCS 99.6	111	(66-136)			90 ug/L	08/28/2007
Methylene chloride	LCS 30.8	103	(63-131)			30 ug/L	08/28/2007
Trichlorofluoromethane	LCS 30.6	102	(68-145)			30 ug/L	08/28/2007
P & M -Xylene	LCS 55.1	92	(80-120)			60 ug/L	08/28/2007
Naphthalene	LCS 28.2	94	(75-120)			30 ug/L	08/28/2007
o-Xylene	LCS 28.5	95	(80-120)			30 ug/L	08/28/2007
Bromoform	LCS 31.5	105	(80-120)			30 ug/L	08/28/2007
Xylenes (total)	LCS 83.6	93	(80-120)			90 ug/L	08/28/2007
1,2,4-Trimethylbenzene	LCS 28.1	94	(80-125)			30 ug/L	08/28/2007
tert-Butylbenzene	LCS 27.7	92	(80-122)			30 ug/L	08/28/2007
1,1,1-Trichloroethane	LCS 27.9	93	(80-122)			30 ug/L	08/28/2007
1,1-Dichloroethane	LCS 27.8	93	(80-120)			30 ug/L	08/28/2007
2-Chlorotoluene	LCS 26.5	88	(80-125)			30 ug/L	08/28/2007
Trichloroethene	LCS 28.2	94	(80-125)			30 ug/L	08/28/2007
trans-1,2-Dichloroethene	LCS 28.2	94	(79-132)			30 ug/L	08/28/2007
1,2-Dichlorobenzene	LCS 26.8	89	(80-120)			30 ug/L	08/28/2007
2,2-Dichloropropane	LCS 29.2	97	(80-132)			30 ug/L	08/28/2007
Hexachlorobutadiene	LCS 27.2	91	(77-125)			30 ug/L	08/28/2007
Isopropylbenzene (Cumene)	LCS 29.4	98	(80-121)			30 ug/L	08/28/2007
2-Hexanone	LCS 93.3	104	(68-130)			90 ug/L	08/28/2007
1,2-Dichloropropane	LCS 28.3	94	(80-121)			30 ug/L	08/28/2007



SGS Ref.# 786675 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method SW5030B
Date 08/28/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloropropene	LCS	28.4	95	(80-122)		30 ug/L	08/28/2007
1,1,2-Trichloroethane	LCS	28.0	93	(77-120)		30 ug/L	08/28/2007
1,3-Dichlorobenzene	LCS	27.5	92	(80-120)		30 ug/L	08/28/2007
1,2,3-Trichlorobenzene	LCS	28.0	93	(77-120)		30 ug/L	08/28/2007
Surrogates							
1,2-Dichloroethane-D4 <surr>	LCS		103	(73-120)			08/28/2007
Toluene-d8 <surr>	LCS		99	(80-120)			08/28/2007
4-Bromofluorobenzene <surr>	LCS		97	(76-120)			08/28/2007

Batch VMS9312
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



SGS Ref.# 787239 Lab Control Sample
787240 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17208
Method SW5030B
Date 08/30/2007

QC results affect the following production samples:

1074357001, 1074357002

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

Gasoline Range Organics	LCS 0.181	80	(60-120)			0.225 mg/L	08/30/2007
	LCSD 0.182	81		1	(< 20)	0.225 mg/L	08/31/2007

Surrogates

4-Bromofluorobenzene <surr>	LCS	95	(50-150)				08/30/2007
	LCSD	97		2			08/31/2007

Batch VFC8560
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 788533 Lab Control Sample
 788534 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886 Anch Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 09/13/2007 8:20
Prep Batch XXX18530
Method SW3520C
Date 09/06/2007

QC results affect the following production samples:

1074357001

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	1.19	119	(75-125)			1 mg/L	09/08/2007
	LCSD	1.11	111		7	(< 20)	1 mg/L	09/08/2007

Surrogates

5a Androstane <surr>	LCS		111	(60-120)				09/08/2007
	LCSD		107		4			09/08/2007

Batch XFC7574
Method AK102
Instrument HP 5890 Series II FID SV C F

Residual Range Organics	LCS	1.17	117	(60-120)			1 mg/L	09/08/2007
	LCSD	1.16	116		0	(< 20)	1 mg/L	09/08/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		114	(60-120)				09/08/2007
	LCSD		114		0			09/08/2007

Batch XFC7574
Method AK103
Instrument HP 5890 Series II FID SV C F



SGS Ref.# 786676 Matrix Spike
786677 Matrix Spike Duplicate

Printed Date/Time 09/13/2007 8:20
Prep Batch VXX17194
Method Volatiles Extraction 8240/8260
Date 08/28/2007

Original 786668
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:

1074357001, 1074357002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 786676 Matrix Spike **Printed Date/Time** 09/13/2007 8:20
 786677 Matrix Spike Duplicate **Prep Batch** VXX17194
Method Volatiles Extraction 8240/8260
Date 08/28/2007

Original 786668
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	30.5	102	(80-120)			30	ug/L 08/28/2007
	MSD		29.6	99		3	(< 20)	30	ug/L 08/28/2007
Toluene	MS	ND	27.9	93	(77-120)			30	ug/L 08/28/2007
	MSD		27	90		3	(< 20)	30	ug/L 08/28/2007
Ethylbenzene	MS	ND	28.4	95	(80-120)			30	ug/L 08/28/2007
	MSD		27.6	92		3	(< 20)	30	ug/L 08/28/2007
n-Butylbenzene	MS	ND	31.9	106	(80-124)			30	ug/L 08/28/2007
	MSD		30.1	100		6	(< 20)	30	ug/L 08/28/2007
Carbon disulfide	MS	ND	47.7	106	(72-123)			45	ug/L 08/28/2007
	MSD		46.3	103		3	(< 20)	45	ug/L 08/28/2007
1,4-Dichlorobenzene	MS	ND	27.7	92	(80-120)			30	ug/L 08/28/2007
	MSD		27.2	91		2	(< 20)	30	ug/L 08/28/2007
1,2-Dichloroethane	MS	ND	31	103	(80-129)			30	ug/L 08/28/2007
	MSD		29.6	99		4	(< 20)	30	ug/L 08/28/2007
1,3,5-Trimethylbenzene	MS	ND	28.6	95	(80-128)			30	ug/L 08/28/2007
	MSD		27.8	93		3	(< 20)	30	ug/L 08/28/2007
4-Chlorotoluene	MS	ND	31.6	105	(79-128)			30	ug/L 08/28/2007
	MSD		29.8	99		6	(< 20)	30	ug/L 08/28/2007
Chlorobenzene	MS	ND	30	100	(80-120)			30	ug/L 08/28/2007
	MSD		28.7	96		4	(< 20)	30	ug/L 08/28/2007
4-Methyl-2-pentanone (MIBK)	MS	ND	116	129	(69-134)			90	ug/L 08/28/2007
	MSD		115	128		1	(< 20)	90	ug/L 08/28/2007
cis-1,2-Dichloroethene	MS	1.42	31.2	99	(80-125)			30	ug/L 08/28/2007
	MSD		30.8	98		1	(< 20)	30	ug/L 08/28/2007
4-Isopropyltoluene	MS	ND	30.7	102	(80-125)			30	ug/L 08/28/2007
	MSD		29.6	99		4	(< 20)	30	ug/L 08/28/2007
cis-1,3-Dichloropropene	MS	ND	30.5	102	(80-120)			30	ug/L 08/28/2007
	MSD		30.2	101		1	(< 20)	30	ug/L 08/28/2007
n-Propylbenzene	MS	ND	27.3	91	(80-129)			30	ug/L 08/28/2007
	MSD		26.3	88		4	(< 20)	30	ug/L 08/28/2007
Styrene	MS	ND	28	93	(80-120)			30	ug/L 08/28/2007
	MSD		27.3	91		3	(< 20)	30	ug/L 08/28/2007
Dibromomethane	MS	ND	29.6	99	(80-120)			30	ug/L 08/28/2007
	MSD		29	97		2	(< 20)	30	ug/L 08/28/2007
trans-1,3-Dichloropropene	MS	ND	28.7	96	(80-124)			30	ug/L 08/28/2007
	MSD		28.2	94		2	(< 20)	30	ug/L 08/28/2007
1,2,4-Trichlorobenzene	MS	ND	32.2	107	(80-120)			30	ug/L 08/28/2007
	MSD		31.5	105		2	(< 20)	30	ug/L 08/28/2007
1,1,2,2-Tetrachloroethane	MS	ND	31.7	106	(76-123)			30	ug/L 08/28/2007
	MSD		31.3	104		1	(< 20)	30	ug/L 08/28/2007



SGS Ref.# 786676 Matrix Spike **Printed Date/Time** 09/13/2007 8:20
 786677 Matrix Spike Duplicate **Prep Batch** VXX17194
Method Volatiles Extraction 8240/8260
Date 08/28/2007

Original 786668
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	MS	ND	29.7	99	(73-130)			30	ug/L 08/28/2007
	MSD		29.4	98		1	(< 20)	30	ug/L 08/28/2007
Methyl-t-butyl ether	MS	ND	43.4	96	(80-120)			45	ug/L 08/28/2007
	MSD		43.7	97		1	(< 20)	45	ug/L 08/28/2007
Tetrachloroethene	MS	ND	27.3	91	(79-122)			30	ug/L 08/28/2007
	MSD		26.5	88		3	(< 20)	30	ug/L 08/28/2007
2-Chloroethyl Vinyl Ether	MS	ND	13.7	30*	(58-140)			45	ug/L 08/28/2007
	MSD		4.07	9*		108 *	(< 20)	45	ug/L 08/28/2007
Dibromochloromethane	MS	ND	31.4	105	(80-120)			30	ug/L 08/28/2007
	MSD		30.5	102		3	(< 20)	30	ug/L 08/28/2007
1,3-Dichloropropane	MS	ND	29.8	99	(80-121)			30	ug/L 08/28/2007
	MSD		28.8	96		4	(< 20)	30	ug/L 08/28/2007
1,2-Dibromoethane	MS	ND	28	93	(80-120)			30	ug/L 08/28/2007
	MSD		27.2	91		3	(< 20)	30	ug/L 08/28/2007
Carbon tetrachloride	MS	ND	28.9	96	(80-126)			30	ug/L 08/28/2007
	MSD		28	93		3	(< 20)	30	ug/L 08/28/2007
1,1,1,2-Tetrachloroethane	MS	ND	30.1	100	(80-120)			30	ug/L 08/28/2007
	MSD		28.9	96		4	(< 20)	30	ug/L 08/28/2007
Chloroform	MS	ND	30.6	102	(80-124)			30	ug/L 08/28/2007
	MSD		29.6	99		3	(< 20)	30	ug/L 08/28/2007
Bromobenzene	MS	ND	28.4	95	(80-120)			30	ug/L 08/28/2007
	MSD		27.8	93		2	(< 20)	30	ug/L 08/28/2007
Chloromethane	MS	ND	33.7	112	(67-125)			30	ug/L 08/28/2007
	MSD		30.3	101		11	(< 20)	30	ug/L 08/28/2007
1,2,3-Trichloropropane	MS	ND	29.3	98	(80-120)			30	ug/L 08/28/2007
	MSD		29.4	98		0	(< 20)	30	ug/L 08/28/2007
Bromomethane	MS	ND	25.8	86	(30-140)			30	ug/L 08/28/2007
	MSD		24.6	82		5	(< 20)	30	ug/L 08/28/2007
Bromochloromethane	MS	ND	28.9	96	(77-129)			30	ug/L 08/28/2007
	MSD		29	97		0	(< 20)	30	ug/L 08/28/2007
Vinyl chloride	MS	ND	29.2	98	(72-145)			30	ug/L 08/28/2007
	MSD		27.7	92		6	(< 20)	30	ug/L 08/28/2007
Dichlorodifluoromethane	MS	ND	39.9	133	(62-153)			30	ug/L 08/28/2007
	MSD		39.8	133		0	(< 20)	30	ug/L 08/28/2007
Chloroethane	MS	ND	33.3	111	(67-133)			30	ug/L 08/28/2007
	MSD		31.6	105		5	(< 20)	30	ug/L 08/28/2007
sec-Butylbenzene	MS	ND	30	100	(80-120)			30	ug/L 08/28/2007
	MSD		28.7	96		4	(< 20)	30	ug/L 08/28/2007
Bromodichloromethane	MS	ND	34.5	115	(80-120)			30	ug/L 08/28/2007
	MSD		33.2	111		4	(< 20)	30	ug/L 08/28/2007



SGS Ref.# 786676 Matrix Spike **Printed Date/Time** 09/13/2007 8:20
 786677 Matrix Spike Duplicate **Prep Batch** VXX17194
Method Volatiles Extraction 8240/8260
Date 08/28/2007

Original 786668
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,1-Dichloroethene	MS	ND	27.1	91	(76-130)			30	ug/L 08/28/2007
	MSD		25.4	85		7	(< 20)	30	ug/L 08/28/2007
2-Butanone (MEK)	MS	ND	96.7	107	(66-136)			90	ug/L 08/28/2007
	MSD		97.4	108		1	(< 20)	90	ug/L 08/28/2007
Methylene chloride	MS	ND	32.8	109	(63-131)			30	ug/L 08/28/2007
	MSD		32.2	107		2	(< 20)	30	ug/L 08/28/2007
Trichlorofluoromethane	MS	ND	31.5	105	(68-145)			30	ug/L 08/28/2007
	MSD		29.9	100		5	(< 20)	30	ug/L 08/28/2007
P & M -Xylene	MS	ND	55	92	(80-120)			60	ug/L 08/28/2007
	MSD		53	88		4	(< 20)	60	ug/L 08/28/2007
Naphthalene	MS	ND	31.4	105	(75-120)			30	ug/L 08/28/2007
	MSD		31.1	104		1	(< 20)	30	ug/L 08/28/2007
o-Xylene	MS	ND	29.1	97	(80-120)			30	ug/L 08/28/2007
	MSD		28.1	94		3	(< 20)	30	ug/L 08/28/2007
Bromoform	MS	ND	33.3	111	(80-120)			30	ug/L 08/28/2007
	MSD		32.5	108		2	(< 20)	30	ug/L 08/28/2007
Xylenes (total)	MS	ND	84.1	94	(80-120)			90	ug/L 08/28/2007
	MSD		81.2	90		4	(< 20)	90	ug/L 08/28/2007
1,2,4-Trimethylbenzene	MS	ND	28.8	96	(80-125)			30	ug/L 08/28/2007
	MSD		28.2	94		2	(< 20)	30	ug/L 08/28/2007
tert-Butylbenzene	MS	ND	28.7	96	(80-122)			30	ug/L 08/28/2007
	MSD		28.1	94		2	(< 20)	30	ug/L 08/28/2007
1,1,1-Trichloroethane	MS	ND	29.3	98	(80-122)			30	ug/L 08/28/2007
	MSD		28.1	94		4	(< 20)	30	ug/L 08/28/2007
1,1-Dichloroethane	MS	ND	27.9	93	(80-120)			30	ug/L 08/28/2007
	MSD		26.9	90		4	(< 20)	30	ug/L 08/28/2007
2-Chlorotoluene	MS	ND	27.5	92	(80-125)			30	ug/L 08/28/2007
	MSD		27.5	92		0	(< 20)	30	ug/L 08/28/2007
Trichloroethene	MS	ND	30	100	(80-125)			30	ug/L 08/28/2007
	MSD		29.2	97		3	(< 20)	30	ug/L 08/28/2007
trans-1,2-Dichloroethene	MS	ND	29.5	98	(79-132)			30	ug/L 08/28/2007
	MSD		29.1	97		1	(< 20)	30	ug/L 08/28/2007
1,2-Dichlorobenzene	MS	ND	27.8	93	(80-120)			30	ug/L 08/28/2007
	MSD		27.2	91		2	(< 20)	30	ug/L 08/28/2007
2,2-Dichloropropane	MS	ND	29.9	100	(80-132)			30	ug/L 08/28/2007
	MSD		29.5	98		1	(< 20)	30	ug/L 08/28/2007
Hexachlorobutadiene	MS	ND	30.4	101	(77-125)			30	ug/L 08/28/2007
	MSD		25.4	85		18	(< 20)	30	ug/L 08/28/2007
Isopropylbenzene (Cumene)	MS	ND	29.8	99	(80-121)			30	ug/L 08/28/2007
	MSD		28.8	96		3	(< 20)	30	ug/L 08/28/2007



SGS Ref.# 786676 Matrix Spike **Printed Date/Time** 09/13/2007 8:20
 786677 Matrix Spike Duplicate **Prep Batch** VXX17194
Method Volatiles Extraction 8240/8260
Date 08/28/2007
Original 786668
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

2-Hexanone	MS	ND	95.6	106	(68-130)			90	ug/L 08/28/2007
	MSD		94.4	105		1	(< 20)	90	ug/L 08/28/2007
1,2-Dichloropropane	MS	ND	28.9	96	(80-121)			30	ug/L 08/28/2007
	MSD		28.4	95		2	(< 20)	30	ug/L 08/28/2007
1,1-Dichloropropene	MS	ND	29.9	100	(80-122)			30	ug/L 08/28/2007
	MSD		29.1	97		3	(< 20)	30	ug/L 08/28/2007
1,1,2-Trichloroethane	MS	ND	28.3	95	(77-120)			30	ug/L 08/28/2007
	MSD		27.2	91		4	(< 20)	30	ug/L 08/28/2007
1,3-Dichlorobenzene	MS	ND	28.4	95	(80-120)			30	ug/L 08/28/2007
	MSD		27.8	93		2	(< 20)	30	ug/L 08/28/2007
1,2,3-Trichlorobenzene	MS	ND	31.1	104	(77-120)			30	ug/L 08/28/2007
	MSD		30.5	102		2	(< 20)	30	ug/L 08/28/2007

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		30	100	(73-120)				08/28/2007
	MSD		29.6	99		1			08/28/2007
Toluene-d8 <surr>	MS		29.3	98	(80-120)				08/28/2007
	MSD		29.4	98		0			08/28/2007
4-Bromofluorobenzene <surr>	MS		30.8	103	(76-120)				08/28/2007
	MSD		30.9	103		0			08/28/2007

Batch VMS9312
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

1074357



1 of 1

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

CHAIN-OF-CUSTODY RECORD

Laboratory SGS
Attn: Barbara

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

2355 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 63146-3564
(314) 699-9660

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

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

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	Analysis Parameters/Sample Container Description	Total Number of Containers	Remarks/Matrix
01886-TW1	① A-TH	14:15	8/23/07	✓	✓	PRO + PRLG (AK 102 + AK 103)		Water
WTBZ	② A-C	14:15	8/23/07			GRO (AK 101)		Water Trip Blank
						VOCs (EPA 821.605)		

Project Information		Sample Receipt		Relinquished By: 1.		Relinquished By: 2.		Relinquished By: 3.	
Project Number: <u>32-1-01886</u>	Total Number of Containers	COC Seals/Intact? Y/N/NA		Signature: <u>[Signature]</u>	Time: <u>13:20</u>	Signature:	Time:	Signature:	Time:
Project Name: <u>Anch. Fish Hatchery</u>	Received Good Cond./Cold	Delivery Method:		Printed Name: <u>Joe Thomas</u>	Date:	Printed Name:	Date:	Printed Name:	Date:
Contact: <u>Joe Thomas</u>	Delivery Method:	(attach shipping bill, if any)		Company: <u>Shannon & Wilson</u>		Company:		Company:	
Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>									
Sampler: <u>Joe Thomas</u>									
Instructions		Received By: 1.		Received By: 2.		Received By: 3.			
Requested Turnaround Time: <u>Standard</u>	<u>TB28</u>	Signature:	Time:	Signature:	Time:	Signature: <u>[Signature]</u>	Time: <u>13:20</u>		
Special Instructions: <u>Level 1 Deliverables</u>	<u>C=55</u>	Printed Name:	Date:	Printed Name:	Date:	Printed Name: <u>Brian E. Edgington</u>	Date:		
Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report		Company:		Company:		Company: <u>SGS</u>			
Yellow - w/shipment - for consignee files									
Pink - Shannon & Wilson - Job File									



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?

Due Date: 9/10/07
 Received Date: 8/24/07
 Received Time: 1320
 Is date/time conversion necessary? NO
 # of hours to AK Local Time: _____
 Thermometer ID: 690 700

Cooler ID	Temp Blank	Cooler Temp
<u>1</u>	<u>2.8 °C</u>	<u>5.5 °C</u>
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C

- 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)

*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: _____

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? | _____ |

- 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 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: * sample 1c has a bubble at 6mm.

Completed by (sign): [Signature] (print): Joe Rudi
 Login proof (check one): waived required performed by: _____

SGS

1074357

SAMPLE RECEIPT FORM (page 2)

SGS W



#	Container ID	Matrix	Test	QC	TB	Container Volume							Other	Container Type							Preservative																			
						1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)		4oz (125 mL)	AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	None	HCl	HNO ₃	H ₂ SO ₄	MeOH	Na ₂ S ₂ O ₃	NaOH	Other										
1	A-C	↓	GR0 AK101							3					✓																									
	D-F			VOC opa 8260 ^B							3					✓																								
	G, H, I			AK 102, 103 DRO & RRO		2										✓																								
2	A-X	↓	GR0 AK101							1					✓																									
	B-C			VOC opa 8260							2					✓																								

Bottle Totals	2			9			
---------------	---	--	--	---	--	--	--

Completed by: *J. [signature]* Date: 8/24/07

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 Environmental Services - WO 1074357

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:

NA

2. Chain of Custody (COC)

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

Yes No Comments:

b. Correct analyses requested?

Yes No Comments:

3. Laboratory Sample Receipt Documentation

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

Yes No Comments:

Cooler temperature 5.5 degrees C, temperature blank 2.8 degrees C

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

Yes No Comments:

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

Yes No Comments:

Sample container 1C (Sample TW1) has bubble at 6 mm

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:

e. Data quality or usability affected? Explain.

Comments:

4. Case Narrative

a. Present and understandable?

Yes No Comments:

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

Yes No Comments:

c. Were all corrective actions documented?

Yes No Comments:

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

Comments:

5. Samples Results

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

Yes No Comments:

b. All applicable holding times met?

Yes No Comments:

c. All soils reported on a dry weight basis?

Yes No

Comments:

NA

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

Yes No

Comments:

e. Data quality or usability affected? Explain.

Comments:

No

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:

NA

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

Yes No

Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

No

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:

NA

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:

NA

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

Yes No Comments:

NA

vii. Data quality or usability affected? Explain.

Comments:

No

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

e. Field Duplicate

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

Yes No Comments:

Duplicate samples were collected as part of this sampling program and submitted under a different work order number

ii. Submitted blind to lab?

Yes No

Comments:

NA

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

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

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No

Comments:

NA

iv. Data quality or usability affected? Explain.

Comments:

NA

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No

Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

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

a. Defined and appropriate?

Yes No

Comments:

Lab specific flags defined on page following case narrative

Completed by:

Jessica Busey

Title:

Environmental Scientist III

Date:

October 24, 2007

CS Report Name:

Site Characterization, Anchorage Fish Hatchery, Anchorage, Alaska

Report Date:

October 2007

Consultant Firm:

Shannon & Wilson, Inc

Laboratory Name:

SGS Environmental Services

Laboratory Report Number:

WO 1074357

ADEC File Number:

none

ADEC RecKey Number:

none



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 32-1-01886-4 Anc Fish Hatcher
Client: Shannon & Wilson Inc.
SGS Work Order: 1075114

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt 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.



Case Narrative

Client SHANNOT Shannon & Wilson Inc.
Workorder 1075114 32-1-01886-4 Anc Fish Hatcher

Printed Date/Time 10/18/2007 15:02

Sample ID **Client Sample ID**

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

795326 **DUP** **01886-4-P23(1075114019DUP)**
2540G - The original sample and its duplicate does not meet QC RPD goals for total solids. The sample is non-homogeneous.

797944 **CCV** **CCV for HBN 193019 (XGC/5975)**
8082- CCV surrogate recovery is outside QC goals (biased high), but within QC goals for samples.

797945 **CCV** **CCV for HBN 193019 (XGC/5975)**
8082- CCV surrogate recovery is outside QC goals (biased high), but within QC goals for samples.

799108 **CCV** **CCV for HBN 193262 (XGC/5983)**
8082- CCV surrogate recovery is outside QC goals (biased low), but within QC goals for samples.



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>

Haydar Turker
Shannon & Wilson Inc.
5430 Fairbanks St., Suite 3
Anchorage, Anchorage AK 99518

Work Order:	1075114	
	32-1-01886-4 Anc Fish Hatchery	Released by:
Client:	Shannon & Wilson Inc.	
Report Date:	October 18, 2007	

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 001828 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.# 1075114001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P1
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:50
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	83.8	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	101		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	58.4		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114002
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P2
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:45
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	63.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	103		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	78.4		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114003
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P3
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:10
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	81.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	101		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	60.4		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114004
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P4
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:50
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	84.3	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	110		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	59.2		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114005
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P5
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:30
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	96.1	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	89.4		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	51.0		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114006
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P6
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:15
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	91.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	97.7		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	53.8		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114007
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P7
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 12:50
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	117	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	105		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	42.4		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114008
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P8
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:34
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	72.0	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	95.8		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	68.8		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114009
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P9
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:30
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	73.5	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	95.4		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	66.6		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114010
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P10
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:04
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	101	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	102		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	49.5		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114011
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P11
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:41
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	77.7	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	97		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	63.3		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114012
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P12
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:22
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	82.2	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	92.1		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	60.0		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114013
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P13
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 13:02
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1221	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1232	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1242	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1248	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1254	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Aroclor-1260	ND	67.4	ug/Kg	SW8082	A		10/08/07	10/09/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	98.9		%	SW8082	A	60-125	10/08/07	10/09/07	SCL
<u>Solids</u>									
Total Solids	73.5		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114014
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P14
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 12:40
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	94.8	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	99		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	52.7		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114015
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P15
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:05
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	102	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	109		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	48.4		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114016
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P16
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 14:51
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	95.9	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	93		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	51.1		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114017
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P21
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 15:21
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	85.1	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	108		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	58.6		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114018
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P22
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 15:25
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	79.4	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	105		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	62.9		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114019
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P23
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 15:33
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1221	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1232	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1242	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1248	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1254	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Aroclor-1260	ND	116	ug/Kg	SW8082	A		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	99.4		%	SW8082	A	60-125	10/08/07	10/10/07	SCL
<u>Solids</u>									
Total Solids	42.8		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 1075114020
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Client Sample ID 01886-4-P24
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/18/2007 15:02
Collected Date/Time 09/25/2007 15:35
Received Date/Time 09/26/2007 16:15
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1221	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1232	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1242	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1248	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1254	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Aroclor-1260	ND	118	ug/Kg	SW8082	A		10/11/07	10/15/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	92.2		%	SW8082	A	60-125	10/11/07	10/15/07	SCL
<u>Solids</u>									
Total Solids	41.6		%	SM20 2540G	A			09/29/07	BEN



SGS Ref.# 795320 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:

1075114001, 1075114002, 1075114003, 1075114004, 1075114005, 1075114006, 1075114007, 1075114008, 1075114009,
1075114010, 1075114011, 1075114012, 1075114013, 1075114014, 1075114015, 1075114016

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Solids					
Total Solids	100			%	09/29/07
Batch	SPT7419				
Method	SM20 2540G				
Instrument					



SGS Ref.# 795325 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:
1075114017, 1075114018, 1075114019

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Solids

Total Solids	100			%	09/29/07
Batch	SPT7421				
Method	SM20 2540G				
Instrument					



SGS Ref.# 795335 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:
1075114020

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
-----------	---------	----------------------------	-----	-------	------------------

Solids

Total Solids	100			%	09/29/07
Batch	SPT7422				
Method	SM20 2540G				
Instrument					



SGS Ref.# 797056 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch XXX18688
Method SW3550B
Date 10/08/2007

QC results affect the following production samples:

1075114001, 1075114002, 1075114003, 1075114004, 1075114005, 1075114006, 1075114007, 1075114008, 1075114009,
1075114010, 1075114011, 1075114012, 1075114013, 1075114014, 1075114015, 1075114016, 1075114017, 1075114018,
1075114019

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Polychlorinated Biphenyls					
Aroclor-1016	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1221	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1232	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1242	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1248	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1254	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1260	ND	49.2	14.8	ug/Kg	10/09/07
Surrogates					
Decachlorobiphenyl <surr>	116	60-125		%	10/09/07
Batch	XGC5974				
Method	SW8082				
Instrument	HP 5890 Series II ECD SV I F				



SGS Ref.# 797894 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch XXX18710
Method SW3550B
Date 10/11/2007

QC results affect the following production samples:
1075114020

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>Polychlorinated Biphenyls</u>					
Aroclor-1016	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1221	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1232	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1242	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1248	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1254	ND	49.9	15.0	ug/Kg	10/15/07
Aroclor-1260	ND	49.9	15.0	ug/Kg	10/15/07
Surrogates					
Decachlorobiphenyl <surr>	99.5	60-125		%	10/15/07
Batch	XGC5983				
Method	SW8082				
Instrument	HP 5890 Series II ECD SV I F				



SGS Ref.# 795321 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Original 1075076003
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:

1075114001, 1075114002, 1075114003, 1075114004, 1075114005, 1075114006, 1075114007, 1075114008, 1075114009, 1075114010,
1075114011, 1075114012, 1075114013, 1075114014, 1075114015, 1075114016

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
-----------	-----------------	-----------	-------	-----	------------	---------------

Solids

Total Solids	87.5	87.4	%	0		09/29/2007
Batch	SPT7419					
Method	SM20 2540G					
Instrument						



SGS Ref.# 795326 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Original 1075114019
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:
1075114017, 1075114018, 1075114019

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
-----------	-----------------	-----------	-------	-----	------------	---------------

Solids

Total Solids	42.8	39.4 *	%	8	(< 5)	09/29/2007
Batch	SPT7421					
Method	SM20 2540G					
Instrument						



SGS Ref.# 795336 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Original 1074693002
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch
Method
Date

QC results affect the following production samples:
1075114020

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
-----------	-----------------	-----------	-------	-----	------------	---------------

Solids

Total Solids	85.9	89.7	%	4	(< 5)	09/29/2007
Batch	SPT7422					
Method	SM20 2540G					
Instrument						



SGS Ref.# 797057 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch XXX18688
Method SW3550B
Date 10/08/2007

QC results affect the following production samples:

1075114001, 1075114002, 1075114003, 1075114004, 1075114005, 1075114006, 1075114007, 1075114008, 1075114009, 1075114010,
1075114011, 1075114012, 1075114013, 1075114014, 1075114015, 1075114016, 1075114017, 1075114018, 1075114019

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Polychlorinated Biphenyls

Aroclor-1016	LCS	384	87	(47-120)		440 ug/Kg	10/09/2007
--------------	-----	-----	----	------------	--	-----------	------------

Aroclor-1260	LCS	443	101	(60-130)		440 ug/Kg	10/09/2007
--------------	-----	-----	-----	------------	--	-----------	------------

Surrogates

Decachlorobiphenyl <surr>	LCS		114	(60-125)			10/09/2007
---------------------------	-----	--	-----	------------	--	--	------------

Batch XGC5974
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 797895 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-4 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/18/2007 15:02
Prep Batch XXX18710
Method SW3550B
Date 10/11/2007

QC results affect the following production samples:
1075114020

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS	257	116	(47-120)		221 ug/Kg	10/15/2007
Aroclor-1260	LCS	243	110	(60-130)		221 ug/Kg	10/15/2007
Surrogates							
Decachlorobiphenyl <surr>	LCS		102	(60-125)			10/15/2007

Batch XGC5983
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.#	797058	Matrix Spike	Printed Date/Time	10/18/2007 15:02
	797059	Matrix Spike Duplicate	Prep	XXX18688
			Batch	
			Method	Sonication Extraction Soil SW8
			Date	10/08/2007
Original	1075213001			
Matrix	Soil/Solid			

QC results affect the following production samples:

1075114001, 1075114002, 1075114003, 1075114004, 1075114005, 1075114006, 1075114007, 1075114008, 1075114009,
 1075114010, 1075114011, 1075114012, 1075114013, 1075114014, 1075114015, 1075114016, 1075114017, 1075114018,
 1075114019

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	238	105	(47-120)			226 ug/Kg	10/10/2007
	MSD		231	102		3	(< 30)	227 ug/Kg	10/10/2007
Aroclor-1260	MS	ND	282	125	(60-130)			226 ug/Kg	10/10/2007
	MSD		282	125		0	(< 30)	227 ug/Kg	10/10/2007
Surrogates									
Decachlorobiphenyl <surr>	MS		165	73	(60-125)				10/10/2007
	MSD		168	74		2			10/10/2007

Batch XGC5975
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 797896 Matrix Spike Printed Date/Time 10/18/2007 15:02
797897 Matrix Spike Duplicate Prep Batch XXX18710
Method Sonication Extraction Soil SW8
Date 10/11/2007

Original 1075232009
Matrix Soil/Solid

QC results affect the following production samples:
1075114020

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	794	88	(47-120)			901 ug/Kg	10/15/2007
	MSD		807	89		2	(< 30)	905 ug/Kg	10/15/2007
Aroclor-1260	MS	ND	811	90	(60-130)			901 ug/Kg	10/15/2007
	MSD		827	91		2	(< 30)	905 ug/Kg	10/15/2007
Surrogates									
Decachlorobiphenyl <surr>	MS		712	79	(60-125)				10/15/2007
	MSD		691	77		3			10/15/2007
Batch	XGC5983								
Method	SW8082								
Instrument	HP 5890 Series II ECD SV I F								

1075114



SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

CHAIN-OF-CUSTODY

Laboratory SGS Page 1 of 2
Attn: Barbara Hagar

400 N. 34th Street, Suite 100 Seattle, WA 98103 (206) 632-8020
2043 Westport Center Drive St. Louis, MO 63146-3564 (314) 699-9660
303 Wellisian Way Richland, WA 99352 (509) 946-6309

2355 Hill Road Fairbanks, AK 99709 (907) 479-0600
5430 Fairbanks Street, Suite 3 Anchorage, AK 99518 (907) 561-2126

2255 S.W. Canyon Road Portland, OR 97201-2498 (503) 223-6147
1200 17th Street, Suite 1024 Denver, Co 80202-07 (303) 825-2800

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

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	PCBS	EPA 3062	Total Number of Containers	Remarks/Matrix
01886-4-P1	① A ①	14:50	9/25/07	✓	✓			1	Soil
" -P2	②	14:45	"	✓	✓			1	"
-P3	③	14:10	"	✓	✓			1	"
-P4	④	13:50	"	✓	✓			1	"
-P5	⑤	13:30	"	✓	✓			1	"
-P6	⑥	13:15	"	✓	✓			1	"
-P7	⑦	12:50	"	✓	✓			1	"
-P8	⑧	14:34	"	✓	✓			1	"
-P9	⑨	14:30	"	✓	✓			1	"
-P10	⑩	14:04	"	✓	✓			1	"

Project Information		Sample Receipt		Relinquished By: 1.		Relinquished By: 2.		Relinquished By: 3.	
Project Number: <u>32-1-01886-4</u>		Total Number of Containers		Signature: <u>[Signature]</u> Time: <u>16:15</u>		Signature: _____ Time: _____		Signature: _____ Time: _____	
Project Name: <u>Anch Fish Hatch.</u>		COC Seals/Intact? Y/N/NA		Printed Name: <u>Joe Thomas</u> Date: <u>9/26/07</u>		Printed Name: _____ Date: _____		Printed Name: _____ Date: _____	
Contact: <u>Haydar Turker</u>		Received Good Cond./Cold <u>TB=7.9</u>		Company: <u>Shannon & Wilson</u>		Company: _____		Company: _____	
Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Delivery Method: <u>C=7.2</u>		Received By: 1.		Received By: 2.		Received By: 3.	
Sampler: <u>Joe Thomas</u>		(attach shipping bill, if any)		Signature: _____ Time: _____		Signature: _____ Time: _____		Signature: <u>[Signature]</u> Time: <u>1615</u>	
Instructions				Printed Name: _____ Date: _____		Printed Name: _____ Date: _____		Printed Name: <u>James Johnson</u> Date: <u>9-26-07</u>	
Requested Turnaround Time: <u>Standard</u>				Company: _____		Company: _____		Company: <u>SGS</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									



CHAIN-OF-CUSTODY RECORD

Laboratory SGS
Attn: Barbara Hagar

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

2355 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 63146-3564
(314) 699-9660

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

1200 17th Street, Suite 1024
Denver, Co 80202
(303) 825-8800

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

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

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	PCBs EPA 8082	Total Number of Containers	Remarks/Matrix
01886-4-P11	① A ⑪	13:41	9/25/07	✓	✓		1	Soil
" -P12	② ⑫	13:22	"	✓	✓		1	"
" -P13	③ ⑬	13:02	"	✓	✓		1	"
" -P14	④ ⑭	12:40	"	✓	✓		1	"
" -P15	⑤ ⑮	14:05	"	✓	✓		1	"
" -P16	⑥ ⑯	14:51	"	✓	✓		1	"
" -P21	⑦ ⑰	15:21	"	✓	✓		1	"
" -P22	⑧ ⑱	15:25	"	✓	✓		1	"
" -P23	⑨ ⑲	15:33	"	✓	✓		1	"
" -P24	⑩ ⑳	15:35	"	✓	✓		1	"

Project Information		Sample Receipt		Relinquished By: 1.		Relinquished By: 2.		Relinquished By: 3.	
Project Number: <u>32-1-01886-4</u>	Total Number of Containers	COC Seals/Intact? Y/N/NA		Signature: <u>See page 1</u>	Time: _____	Signature: <u>[Signature]</u>	Time: <u>16:15</u>	Signature: _____	Time: _____
Project Name: <u>Anch. Fish Hatch.</u>	Received Good Cond./Cold	Delivery Method:		Printed Name: _____	Date: _____	Printed Name: <u>Joe Thomas</u>	Date: _____	Printed Name: _____	Date: _____
Contact: <u>Haydar Turker</u>	(attach shipping bill, if any)		Company: _____		Company: <u>Shannon & Wilson</u>		Company: _____		
Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Sampler: <u>Joe Thomas</u>		Received By: 1.		Received By: 2.		Received By: 3.		
Instructions		Requested Turnaround Time: <u>Standard</u>		Signature: _____	Time: _____	Signature: _____	Time: _____	Signature: _____	Time: <u>16:15</u>
Special Instructions:		Company: _____		Printed Name: _____	Date: _____	Printed Name: _____	Date: _____	Printed Name: <u>[Signature]</u>	Date: <u>9-26-07</u>
Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report		Company: _____		Company: _____		Company: _____		Company: <u>SGS</u>	
Yellow - w/shipment - for consignee files		Company: _____		Company: _____		Company: _____		Company: _____	
Pink - Shannon & Wilson - Job File		Company: _____		Company: _____		Company: _____		Company: _____	



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?

Due Date: 10-9-07
 Received Date: 9-26-07
 Received Time: 1615
 Is date/time conversion necessary? N
 # of hours to AK Local Time: _____

Cooler ID	Temp Blank	Cooler Temp
<u>1</u>	<u>7.4</u> °C	<u>7.2</u> °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C

*Temperature readings include thermometer correction factors

- 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)

Delivery method (circle all that apply): Client /
 Alert Courier / UPS / FedEx / USPS /
 AA Goldstreak / NAC / ERA / PenAir / Carille
 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 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): _____

(print): James Johnson

Login proof (check one): waived required _____ performed by: _____

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 Environmental Services WO 1075114

- 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:

NA

2. Chain of Custody (COC)

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

Yes No Comments:

- b. Correct analyses requested?

Yes No Comments:

3. Laboratory Sample Receipt Documentation

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

Yes No Comments:

Temperature blank 7.4 degrees C, cooler temperature 7.2 degrees C

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

Yes No Comments:

NA - no preservation required for PCB analysis

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

Yes No Comments:

No undesirable sample conditions noted

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:

No discrepancies noted

e. Data quality or usability affected? Explain.

Comments:

Data quality/usability should not be effected - due to the non-volatile nature of PCBs, the cooler and sample temperatures should not effect the sample results.

4. Case Narrative

a. Present and understandable?

Yes No Comments:

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

Yes No Comments:

Discrepancies limited to duplicate and CCV QC failures

c. Were all corrective actions documented?

Yes No Comments:

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

Comments:

Data quality/usability should not be affected

5. Samples Results

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

Yes No Comments:

b. All applicable holding times met?

Yes No Comments:

c. All soils reported on a dry weight basis?

Yes No Comments:

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

Yes No Comments:

e. Data quality or usability affected? Explain.

Comments:

NO

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:

NA

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

Yes No Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

No

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

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

Yes No Comments:

NA

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

Yes No Comments:

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

Yes No Comments:

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

Yes No Comments:

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

Comments:

NA

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

Yes No Comments:

NA

vii. Data quality or usability affected? Explain.

Comments:

No

c. Surrogates – Organics Only

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

Yes No Comments:

Surrogate recovery reported for PCBs

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

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:

NA

ii. All results less than PQL?

Yes No Comments:

NA

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Data quality or usability affected? Explain.

Comments:

NA

e. Field Duplicate

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

Yes No Comments:

Two duplicate sample sets P1/P16 and P10/P15

ii. Submitted blind to lab?

Yes No

Comments:

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

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

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No

Comments:

RPDs could not be calculated due to non-detectable concentrations of target analytes

iv. Data quality or usability affected? Explain.

Comments:

No, RPDs are considered acceptable

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No

Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

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

a. Defined and appropriate?

Yes No

Comments:

Lab Specific flags defined on page following Case Narrative

Completed by:

Title:

Date:

CS Report Name:

Report Date:

Consultant Firm:

Laboratory Name:

Laboratory Report Number:

ADEC File Number:

ADEC RecKey Number:



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 32-1-01886-3 Anc Fish Hatchery
Client: Shannon & Wilson Inc.
SGS Work Order: 1075115

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt 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.



CASE NARRATIVE

Print Date: 10/16/2007

Client Name: Shannon & Wilson Inc.
Project Name: 32-1-01886-3 Anc Fish Hatchery
Workorder No.: 1075115

Sample Comments

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

<u>Lab Sample ID</u>	<u>Sample Type</u>	<u>Client Sample ID</u>
1075115001	PS	01886-3 B25S5
	AK101 - BFB (surrogate) recovery does not meet QC goals (biased high) due to matrix interference. AK102 - The pattern is consistent with a weathered middle distillate. AK103 - Unknown hydrocarbon with several peaks is present.	
1075115002	PS	01886-3 B25S6
	AK101/8021B - BFB (surrogate) recovery does not meet QC goals (biased high) due to matrix interference. AK103 - Unknown hydrocarbon with several peaks is present. AK102 - The pattern is consistent with a weathered middle distillate.	
1075115003	PS	01886-3 B25MW
	AK101 - BFB (surrogate) recovery does not meet QC goals (biased high) due to matrix interference. 8260B - Sample was analyzed at a dilution due to strong fuel odor. AK102 - The pattern is consistent with a weathered middle distillate. AK103 - The extract was diluted due to the high DRO content; therefore, the PQL is elevated. AK103 - MB surrogate recovery for n-Triacontane is outside QC goals (biased high). AK103 - LCS surrogate recovery for n-Triacontane is outside QC goals (biased high).	
1075115004	PS	01886-3 B30MW
	8260B - Sample was analyzed three minutes outside of holding time. 8260B - Sample was analyzed at a dilution due to strong fuel odor. AK103 - The extract was diluted due to the high DRO content; therefore, the PQL is elevated. AK102 - The pattern is consistent with a weathered middle distillate. AK103 - MB surrogate recovery for n-Triacontane is outside QC goals (biased high). AK103 - LCS surrogate recovery for n-Triacontane is outside of QC goals (biased high).	
1075115006	PS	01886-B20S2
	AK101 - BFB (surrogate) recovery does not meet QC goals (biased low) due to high moisture content in the sample. The recovery adjusted for moisture content is 81%.	
1075115007	PS	01886-S11
	AK101 - BFB (surrogate) recovery does not meet QC goals (biased low) due to high moisture content in the sample. The recovery adjusted for moisture content is 81%. AK102/103 - Unknown hydrocarbon with several peaks is present.	
796435	LCS	LCS for HBN 192674 [XXX/18675]
	8082 - LCS recovery for Aroclor 1016 is outside QC goals (biased high). This analyte is not detected above the PQL in the associated samples.	
796969	MB	MB for HBN 192797 [XXX/18686]
	AK103 - MB surrogate recovery for n-Triacontane is outside QC goals (biased high).	
796970	LCS	LCS for HBN 192797 [XXX/18686]
	AK103 - LCS surrogate recovery for n-Triacontane is outside of QC goals (biased high).	
797394	CCV	CCV for HBN 192898 (VMS/9437)
	8260 - CCV recovery for chloroethane does not meet QC criteria (biased high). This analyte is not detected in the associated samples.	

797413 MB MB for HBN 192906 [MXX/19617]
6020 - Chromium was detected in the method blank. Concentration of chromium in the sample is 10X greater.

797694 MSD STANDIN FOR 1752...(797690MSE)
8260B - MSD recovery for chloromethane does not meet QC goals. Refer to LCS for control limits.

797697 CCV CCV for HBN 192963 [VMS/9447]
8260B - CCV recoveries for bromomethane, acetone, and 4-chlorotoluene do not meet QC goals (biased high). These analytes are not detected in the associated samples.

797899 CB CB for HBN 193007 (MMS/5134)
6020 - Chromium was detected in the calibration blank. Concentration of chromium in the sample is 10X greater.



Laboratory Analytical Report

Client: **Shannon & Wilson Inc.**
5430 Fairbanks St., Ste. 3
Anchorage, AK 99518

Attn: **Bill Burgess**
T: F:

Project: **32-1-01886-3 Anc Fish Hatchery**
Workorder No.: **1075115**

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Barbara Hager
Barbara.Hager@sgs.com
Project Manager



Enclosed are the analytical results associated with this 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 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.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control 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
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard

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



SAMPLE SUMMARY

Print Date: 10/16/2007

Client Name: Shannon & Wilson Inc.
Project Name: 32-1-01886-3 Anc Fish Hatchery
Workorder No.: 1075115

Analytical Methods

<u>Method Description</u>	<u>Analytical Method</u>
Diesel/Residual Range Organics	AK102
Diesel/Residual Range Organics	AK103
Diesel/Residual Range Organics Water	AK102
Diesel/Residual Range Organics Water	AK103
Gasoline Range Organics (S)	AK101
Gasoline Range Organics (W)	AK101
Mercury 7471	SW7471A
Percent Solids SM2540G	SM20 2540G
RCRA Metals by ICP-MS	SW6020
SW8082 PCB's	SW8082
VOC 8260 (S) Field Extracted	SW8260B
Volatile Organic Compounds (W) FULL	SW8260B

Sample ID Cross Reference

<u>Lab Sample ID</u>	<u>Client Sample ID</u>
1075115001	01886-3 B25S5
1075115002	01886-3 B25S6
1075115003	01886-3 B25MW
1075115004	01886-3 B30MW
1075115005	TBW
1075115006	01886-B20S2
1075115007	01886-S11
1075115008	TBS



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S5**
SGS Ref. #: 1075115001
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
Receipt Date/Time: 09/26/07 16:15

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	59.5	45.3	ug/Kg	1	MCV3732	MXX19595	

Batch Information

Analytical Batch: MCV3732
Analytical Method: SW7471A
Analysis Date/Time: 10/02/07 16:28
Dilution Factor: 1

Prep Batch: MXX19595
Prep Method: METHOD
Prep Date/Time: 10/02/07 12:50

Initial Prep Wt./Vol.: 0.604 g
Prep Extract Vol.: 50 mL
Container ID:1075115001-B
Analyst: AFH



Shannon & Wilson Inc.

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Matrix: Soil/Solid
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Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Arsenic	5.16	1.13	mg/Kg	10	MMS5134	MXX19617	
Barium	79.7	0.338	mg/Kg	10	MMS5134	MXX19617	
Cadmium	0.284	0.225	mg/Kg	10	MMS5134	MXX19617	
Chromium	53.5	0.450	mg/Kg	10	MMS5134	MXX19617	
Lead	5.85	0.225	mg/Kg	10	MMS5134	MXX19617	
Selenium	ND	0.563	mg/Kg	10	MMS5134	MXX19617	
Silver	ND	0.113	mg/Kg	10	MMS5134	MXX19617	

Batch Information

Analytical Batch: MMS5134
Analytical Method: SW6020
Analysis Date/Time: 10/11/07 09:38
Dilution Factor: 10

Prep Batch: MXX19617
Prep Method: SW3050B
Prep Date/Time: 10/09/07 07:10

Initial Prep Wt./Vol.: 1.013 g
Prep Extract Vol.: 50 mL
Container ID:1075115001-B
Analyst: TK



Shannon & Wilson Inc.

Print Date: 10/16/2007

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Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
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Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	42.4	1.98	mg/Kg	1	VFC8648	VXX17422	
4-Bromofluorobenzene <sur>	534	* 50-150	%	1	VFC8648	VXX17422	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 15:59
Dilution Factor: 1

Prep Batch: VXX17422
Prep Method: AK101
Prep Date/Time: 09/25/07 14:55

Initial Prep Wt./Vol.: 72.107 g
Prep Extract Vol.: 25 mL
Container ID:1075115001-A
Analyst: HM



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S5**
SGS Ref. #: 1075115001
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	2790	91.2	mg/Kg	4	XFC7649	XXX18680	
Residual Range Organics	115	91.2	mg/Kg	4	XFC7649	XXX18680	
5a Androstane <surr>	83.5	50-150	%	4	XFC7649	XXX18680	
n-Triacontane-d62 <surr>	79.2	50-150	%	4	XFC7649	XXX18680	

Batch Information

Analytical Batch: XFC7649
Analytical Method: AK102
Analysis Date/Time: 10/07/07 13:26
Dilution Factor: 4

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.012 g
Prep Extract Vol.: 1 mL
Container ID:1075115001-B
Analyst: HKG

Analytical Batch: XFC7649
Analytical Method: AK103
Analysis Date/Time: 10/07/07 13:26
Dilution Factor: 4

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.012 g
Prep Extract Vol.: 1 mL
Container ID:1075115001-B
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S5**
SGS Ref. #: 1075115001
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
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Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1221	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1232	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1242	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1248	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1254	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1260	ND	56.0	ug/Kg	1	XGC5972	XXX18675	
Decachlorobiphenyl <sur>	108	60-125	%	1	XGC5972	XXX18675	

Batch Information

Analytical Batch: XGC5972
Analytical Method: SW8082
Analysis Date/Time: 10/07/07 19:10
Dilution Factor: 1

Prep Batch: XXX18675
Prep Method: SW3550B
Prep Date/Time: 10/04/07 14:40

Initial Prep Wt./Vol.: 22.902 g
Prep Extract Vol.: 5 mL
Container ID: 1075115001-B
Analyst: SCL



Shannon & Wilson Inc.

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Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
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Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	10.3	ug/Kg	1	VMS9437	VXX17483	
Toluene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Ethylbenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
n-Butylbenzene	64.2	19.8	ug/Kg	1	VMS9437	VXX17483	
Carbon disulfide	ND	79.1	ug/Kg	1	VMS9437	VXX17483	
1,4-Dichlorobenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,3,5-Trimethylbenzene	58.5	19.8	ug/Kg	1	VMS9437	VXX17483	
4-Chlorotoluene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Chlorobenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
4-Methyl-2-pentanone (MIBK)	ND	198	ug/Kg	1	VMS9437	VXX17483	
cis-1,2-Dichloroethene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
4-Isopropyltoluene	94.9	19.8	ug/Kg	1	VMS9437	VXX17483	
cis-1,3-Dichloropropene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
n-Propylbenzene	34.2	19.8	ug/Kg	1	VMS9437	VXX17483	
Styrene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Dibromomethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
trans-1,3-Dichloropropene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trichlorobenzene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
1,1,2,2-Tetrachloroethane	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromo-3-chloropropane	ND	79.1	ug/Kg	1	VMS9437	VXX17483	
Tetrachloroethene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
2-Chloroethyl Vinyl Ether	ND	79.1	ug/Kg	1	VMS9437	VXX17483	
Dibromochloromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichloropropane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromoethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Carbon tetrachloride	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1,1,2-Tetrachloroethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Chloroform	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Bromobenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Chloromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichloropropane	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Bromomethane	ND	158	ug/Kg	1	VMS9437	VXX17483	
Bromochloromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Vinyl chloride	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Dichlorodifluoromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S5**
SGS Ref. #: 1075115001
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	158	ug/Kg	1	VMS9437	VXX17483	
sec-Butylbenzene	72.2	19.8	ug/Kg	1	VMS9437	VXX17483	
Bromodichloromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
2-Butanone (MEK)	ND	198	ug/Kg	1	VMS9437	VXX17483	
Methylene chloride	ND	79.1	ug/Kg	1	VMS9437	VXX17483	
Trichlorofluoromethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
P & M -Xylene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Naphthalene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
o-Xylene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Bromoform	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Xylenes (total)	ND	79.1	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trimethylbenzene	238	19.8	ug/Kg	1	VMS9437	VXX17483	
tert-Butylbenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1,1-Trichloroethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
2-Chlorotoluene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Trichloroethene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
trans-1,2-Dichloroethene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichlorobenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
2,2-Dichloropropane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
Hexachlorobutadiene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Isopropylbenzene (Cumene)	20.6	19.8	ug/Kg	1	VMS9437	VXX17483	
2-Hexanone	ND	198	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloropropane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloropropene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,1,2-Trichloroethane	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichlorobenzene	ND	19.8	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichlorobenzene	ND	39.5	ug/Kg	1	VMS9437	VXX17483	
Methyl-t-butyl ether	ND	31.6	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane-D4 <sur>	99.8	80-137	%	1	VMS9437	VXX17483	
Toluene-d8 <sur>	118	80-122	%	1	VMS9437	VXX17483	
4-Bromofluorobenzene <sur>	88.2	42-147	%	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S5**
SGS Ref. #: 1075115001
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 87.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 14:55
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9437		Prep Batch: VXX17483				Initial Prep Wt./Vol.: 72.107 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 10/08/07 20:02		Prep Date/Time: 09/25/07 14:55				Container ID:1075115001-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

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Matrix: Soil/Solid
Percent Solids: 87.7

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Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	87.7		%	1	SPT7419		

Batch Information

Analytical Batch: SPT7419
Analytical Method: SM20 2540G
Analysis Date/Time: 09/29/07 14:00
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1075115001-B
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	52.4	42.1	ug/Kg	1	MCV3732	MXX19595	

Batch Information

Analytical Batch: MCV3732
Analytical Method: SW7471A
Analysis Date/Time: 10/02/07 17:04
Dilution Factor: 1

Prep Batch: MXX19595
Prep Method: METHOD
Prep Date/Time: 10/02/07 12:50

Initial Prep Wt./Vol.: 0.611 g
Prep Extract Vol.: 50 mL
Container ID:1075115002-B
Analyst: AFH



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Arsenic	5.25	1.07	mg/Kg	10	MMS5134	MXX19617	
Barium	73.0	0.321	mg/Kg	10	MMS5134	MXX19617	
Cadmium	0.301	0.214	mg/Kg	10	MMS5134	MXX19617	
Chromium	48.4	0.428	mg/Kg	10	MMS5134	MXX19617	
Lead	5.44	0.214	mg/Kg	10	MMS5134	MXX19617	
Selenium	ND	0.535	mg/Kg	10	MMS5134	MXX19617	
Silver	ND	0.107	mg/Kg	10	MMS5134	MXX19617	

Batch Information

Analytical Batch: MMS5134
Analytical Method: SW6020
Analysis Date/Time: 10/11/07 09:45
Dilution Factor: 10

Prep Batch: MXX19617
Prep Method: SW3050B
Prep Date/Time: 10/09/07 07:10

Initial Prep Wt./Vol.: 1.002 g
Prep Extract Vol.: 50 mL
Container ID:1075115002-B
Analyst: TK



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	69.9	2.11	mg/Kg	1	VFC8648	VXX17422	
4-Bromofluorobenzene <sur>	800	* 50-150	%	1	VFC8648	VXX17422	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 16:19
Dilution Factor: 1

Prep Batch: VXX17422
Prep Method: AK101
Prep Date/Time: 09/25/07 15:00

Initial Prep Wt./Vol.: 63.607 g
Prep Extract Vol.: 25 mL
Container ID:1075115002-A
Analyst: HM



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	3630	214	mg/Kg	10	XFC7655	XXX18680	
Residual Range Organics	101	21.4	mg/Kg	1	XFC7649	XXX18680	
5a Androstane <surr>	107	50-150	%	10	XFC7655	XXX18680	
n-Triacontane-d62 <surr>	136	50-150	%	1	XFC7649	XXX18680	

Batch Information

Analytical Batch: XFC7649
Analytical Method: AK103
Analysis Date/Time: 10/07/07 13:35
Dilution Factor: 1

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.12 g
Prep Extract Vol.: 1 mL
Container ID:1075115002-B
Analyst: HKG

Analytical Batch: XFC7655
Analytical Method: AK102
Analysis Date/Time: 10/11/07 04:49
Dilution Factor: 10

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.12 g
Prep Extract Vol.: 1 mL
Container ID:1075115002-B
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1221	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1232	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1242	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1248	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1254	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1260	ND	52.9	ug/Kg	1	XGC5972	XXX18675	
Decachlorobiphenyl <sur>	112	60-125	%	1	XGC5972	XXX18675	

Batch Information

Analytical Batch: XGC5972
Analytical Method: SW8082
Analysis Date/Time: 10/07/07 20:33
Dilution Factor: 1

Prep Batch: XXX18675
Prep Method: SW3550B
Prep Date/Time: 10/04/07 14:40

Initial Prep Wt./Vol.: 22.802 g
Prep Extract Vol.: 5 mL
Container ID: 1075115002-B
Analyst: SCL



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	11.0	ug/Kg	1	VMS9437	VXX17483	
Toluene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Ethylbenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
n-Butylbenzene	101	21.1	ug/Kg	1	VMS9437	VXX17483	
Carbon disulfide	ND	84.3	ug/Kg	1	VMS9437	VXX17483	
1,4-Dichlorobenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,3,5-Trimethylbenzene	36.9	21.1	ug/Kg	1	VMS9437	VXX17483	
4-Chlorotoluene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Chlorobenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
4-Methyl-2-pentanone (MIBK)	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
cis-1,2-Dichloroethene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
4-Isopropyltoluene	115	21.1	ug/Kg	1	VMS9437	VXX17483	
cis-1,3-Dichloropropene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
n-Propylbenzene	34.6	21.1	ug/Kg	1	VMS9437	VXX17483	
Styrene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Dibromomethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
trans-1,3-Dichloropropene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trichlorobenzene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
1,1,2,2-Tetrachloroethane	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromo-3-chloropropane	ND	84.3	ug/Kg	1	VMS9437	VXX17483	
Tetrachloroethene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
2-Chloroethyl Vinyl Ether	ND	84.3	ug/Kg	1	VMS9437	VXX17483	
Dibromochloromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichloropropane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromoethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Carbon tetrachloride	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1,1,2-Tetrachloroethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Chloroform	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Bromobenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Chloromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichloropropane	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Bromomethane	ND	169	ug/Kg	1	VMS9437	VXX17483	
Bromochloromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Vinyl chloride	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Dichlorodifluoromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	169	ug/Kg	1	VMS9437	VXX17483	
sec-Butylbenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Bromodichloromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
2-Butanone (MEK)	ND	211	ug/Kg	1	VMS9437	VXX17483	
Methylene chloride	ND	84.3	ug/Kg	1	VMS9437	VXX17483	
Trichlorofluoromethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
P & M -Xylene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Naphthalene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
o-Xylene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Bromoform	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Xylenes (total)	ND	84.3	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trimethylbenzene	194	21.1	ug/Kg	1	VMS9437	VXX17483	
tert-Butylbenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1,1-Trichloroethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
2-Chlorotoluene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Trichloroethene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
trans-1,2-Dichloroethene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichlorobenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
2,2-Dichloropropane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
Hexachlorobutadiene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Isopropylbenzene (Cumene)	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
2-Hexanone	ND	211	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloropropane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloropropene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,1,2-Trichloroethane	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichlorobenzene	ND	21.1	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichlorobenzene	ND	42.2	ug/Kg	1	VMS9437	VXX17483	
Methyl-t-butyl ether	ND	33.7	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane-D4 <surr>	97.4	80-137	%	1	VMS9437	VXX17483	
Toluene-d8 <surr>	119	80-122	%	1	VMS9437	VXX17483	
4-Bromofluorobenzene <surr>	90.8	42-147	%	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9437		Prep Batch: VXX17483				Initial Prep Wt./Vol.: 63.607 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 10/08/07 20:34		Prep Date/Time: 09/25/07 15:00				Container ID:1075115002-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25S6**
SGS Ref. #: 1075115002
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 93.2

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 15:00
Receipt Date/Time: 09/26/07 16:15

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	93.2		%	1	SPT7422		

Batch Information

Analytical Batch: SPT7422
Analytical Method: SM20 2540G
Analysis Date/Time: 09/29/07 13:10
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1075115002-B
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25MW**
SGS Ref. #: 1075115003
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:30
Receipt Date/Time: 09/26/07 16:15

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	0.317	0.100	mg/L	1	VFC8648	VXX17421	
4-Bromofluorobenzene <sur>	185	* 50-150	%	1	VFC8648	VXX17421	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 13:41
Dilution Factor: 1

Prep Batch: VXX17421
Prep Method: SW5030B
Prep Date/Time: 09/28/07 07:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1075115003-F
Analyst: HM



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25MW**
SGS Ref. #: 1075115003
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:30
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	38.6	0.732	mg/L	2	XFC7666	XXX18686	
Residual Range Organics	ND	1.22	mg/L	2	XFC7666	XXX18686	
5a Androstane <surr>	97	50-150	%	2	XFC7666	XXX18686	
n-Triacontane-d62 <surr>	129	50-150	%	2	XFC7666	XXX18686	

Batch Information

Analytical Batch: XFC7666
Analytical Method: AK102
Analysis Date/Time: 10/14/07 01:41
Dilution Factor: 2

Prep Batch: XXX18686
Prep Method: SW3520C
Prep Date/Time: 10/07/07 11:30

Initial Prep Wt./Vol.: 820 mL
Prep Extract Vol.: 1 mL
Container ID:1075115003-G
Analyst: HKG

Analytical Batch: XFC7666
Analytical Method: AK103
Analysis Date/Time: 10/14/07 01:41
Dilution Factor: 2

Prep Batch: XXX18686
Prep Method: SW3520C
Prep Date/Time: 10/07/07 11:30

Initial Prep Wt./Vol.: 820 mL
Prep Extract Vol.: 1 mL
Container ID:1075115003-G
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25MW**
SGS Ref. #: 1075115003
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:30
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	4.00	ug/L	10	VMS9447	VXX17499	
Toluene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Ethylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
n-Butylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Carbon disulfide	ND	20.0	ug/L	10	VMS9447	VXX17499	
1,4-Dichlorobenzene	ND	5.00	ug/L	10	VMS9447	VXX17499	
1,2-Dichloroethane	ND	5.00	ug/L	10	VMS9447	VXX17499	
1,3,5-Trimethylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
4-Chlorotoluene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Chlorobenzene	ND	5.00	ug/L	10	VMS9447	VXX17499	
4-Methyl-2-pentanone (MIBK)	ND	100	ug/L	10	VMS9447	VXX17499	
cis-1,2-Dichloroethene	ND	10.0	ug/L	10	VMS9447	VXX17499	
4-Isopropyltoluene	ND	10.0	ug/L	10	VMS9447	VXX17499	
cis-1,3-Dichloropropene	ND	5.00	ug/L	10	VMS9447	VXX17499	
n-Propylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Styrene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Dibromomethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
trans-1,3-Dichloropropene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,2,4-Trichlorobenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1,2,2-Tetrachloroethane	ND	5.00	ug/L	10	VMS9447	VXX17499	
1,2-Dibromo-3-chloropropane	ND	20.0	ug/L	10	VMS9447	VXX17499	
Methyl-t-butyl ether	ND	50.0	ug/L	10	VMS9447	VXX17499	
Tetrachloroethene	ND	10.0	ug/L	10	VMS9447	VXX17499	
2-Chloroethyl Vinyl Ether	ND	100	ug/L	10	VMS9447	VXX17499	
Dibromochloromethane	ND	5.00	ug/L	10	VMS9447	VXX17499	
1,3-Dichloropropane	ND	4.00	ug/L	10	VMS9447	VXX17499	
1,2-Dibromoethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
Carbon tetrachloride	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1,1,2-Tetrachloroethane	ND	5.00	ug/L	10	VMS9447	VXX17499	
Chloroform	ND	10.0	ug/L	10	VMS9447	VXX17499	
Bromobenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Chloromethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,2,3-Trichloropropane	ND	10.0	ug/L	10	VMS9447	VXX17499	
Bromomethane	ND	30.0	ug/L	10	VMS9447	VXX17499	
Bromochloromethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
Vinyl chloride	ND	10.0	ug/L	10	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25MW**
SGS Ref. #: 1075115003
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:30
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Dichlorodifluoromethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
Chloroethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
sec-Butylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Bromodichloromethane	ND	5.00	ug/L	10	VMS9447	VXX17499	
1,1-Dichloroethene	ND	10.0	ug/L	10	VMS9447	VXX17499	
2-Butanone (MEK)	ND	100	ug/L	10	VMS9447	VXX17499	
Methylene chloride	ND	50.0	ug/L	10	VMS9447	VXX17499	
Trichlorofluoromethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
P & M -Xylene	ND	20.0	ug/L	10	VMS9447	VXX17499	
Naphthalene	ND	20.0	ug/L	10	VMS9447	VXX17499	
o-Xylene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Bromoform	ND	10.0	ug/L	10	VMS9447	VXX17499	
Xylenes (total)	ND	20.0	ug/L	10	VMS9447	VXX17499	
1,2,4-Trimethylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
tert-Butylbenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1,1-Trichloroethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1-Dichloroethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
2-Chlorotoluene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Trichloroethene	ND	10.0	ug/L	10	VMS9447	VXX17499	
trans-1,2-Dichloroethene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,2-Dichlorobenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
2,2-Dichloropropane	ND	10.0	ug/L	10	VMS9447	VXX17499	
Hexachlorobutadiene	ND	10.0	ug/L	10	VMS9447	VXX17499	
Isopropylbenzene (Cumene)	ND	10.0	ug/L	10	VMS9447	VXX17499	
2-Hexanone	ND	100	ug/L	10	VMS9447	VXX17499	
1,2-Dichloropropane	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1-Dichloropropene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,1,2-Trichloroethane	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,3-Dichlorobenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,2,3-Trichlorobenzene	ND	10.0	ug/L	10	VMS9447	VXX17499	
1,2-Dichloroethane-D4 <surr>	106	73-120	%	10	VMS9447	VXX17499	
Toluene-d8 <surr>	91.9	80-120	%	10	VMS9447	VXX17499	
4-Bromofluorobenzene <surr>	108	76-120	%	10	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B25MW**
SGS Ref. #: 1075115003
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:30
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9447		Prep Batch: VXX17499				Initial Prep Wt./Vol.: 5 mL	
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL	
Analysis Date/Time: 10/09/07 23:30		Prep Date/Time: 10/09/07 11:16				Container ID:1075115003-A	
Dilution Factor: 10						Analyst: JDB	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B30MW**
SGS Ref. #: 1075115004
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:50
Receipt Date/Time: 09/26/07 16:15

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	0.102	0.100	mg/L	1	VFC8648	VXX17421	
4-Bromofluorobenzene <sur>	135	50-150	%	1	VFC8648	VXX17421	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 13:22
Dilution Factor: 1

Prep Batch: VXX17421
Prep Method: SW5030B
Prep Date/Time: 09/28/07 07:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1075115004-C
Analyst: HM



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B30MW**
SGS Ref. #: 1075115004
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:50
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	69.7	3.57	mg/L	10	XFC7666	XXX18686	
Residual Range Organics	ND	5.95	mg/L	10	XFC7666	XXX18686	
5a Androstane <surr>	99.9	50-150	%	10	XFC7666	XXX18686	
n-Triacontane-d62 <surr>	115	50-150	%	10	XFC7666	XXX18686	

Batch Information

Analytical Batch: XFC7666
Analytical Method: AK102
Analysis Date/Time: 10/14/07 01:51
Dilution Factor: 10

Prep Batch: XXX18686
Prep Method: SW3520C
Prep Date/Time: 10/07/07 11:30

Initial Prep Wt./Vol.: 840 mL
Prep Extract Vol.: 1 mL
Container ID:1075115004-G
Analyst: HKG

Analytical Batch: XFC7666
Analytical Method: AK103
Analysis Date/Time: 10/14/07 01:51
Dilution Factor: 10

Prep Batch: XXX18686
Prep Method: SW3520C
Prep Date/Time: 10/07/07 11:30

Initial Prep Wt./Vol.: 840 mL
Prep Extract Vol.: 1 mL
Container ID:1075115004-G
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B30MW**
SGS Ref. #: 1075115004
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:50
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	2.00	ug/L	5	VMS9447	VXX17499	
Toluene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Ethylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
n-Butylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Carbon disulfide	ND	10.0	ug/L	5	VMS9447	VXX17499	
1,4-Dichlorobenzene	ND	2.50	ug/L	5	VMS9447	VXX17499	
1,2-Dichloroethane	ND	2.50	ug/L	5	VMS9447	VXX17499	
1,3,5-Trimethylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
4-Chlorotoluene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Chlorobenzene	ND	2.50	ug/L	5	VMS9447	VXX17499	
4-Methyl-2-pentanone (MIBK)	ND	50.0	ug/L	5	VMS9447	VXX17499	
cis-1,2-Dichloroethene	ND	5.00	ug/L	5	VMS9447	VXX17499	
4-Isopropyltoluene	ND	5.00	ug/L	5	VMS9447	VXX17499	
cis-1,3-Dichloropropene	ND	2.50	ug/L	5	VMS9447	VXX17499	
n-Propylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Styrene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Dibromomethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
trans-1,3-Dichloropropene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,2,4-Trichlorobenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1,2,2-Tetrachloroethane	ND	2.50	ug/L	5	VMS9447	VXX17499	
1,2-Dibromo-3-chloropropane	ND	10.0	ug/L	5	VMS9447	VXX17499	
Methyl-t-butyl ether	ND	25.0	ug/L	5	VMS9447	VXX17499	
Tetrachloroethene	ND	5.00	ug/L	5	VMS9447	VXX17499	
2-Chloroethyl Vinyl Ether	ND	50.0	ug/L	5	VMS9447	VXX17499	
Dibromochloromethane	ND	2.50	ug/L	5	VMS9447	VXX17499	
1,3-Dichloropropane	ND	2.00	ug/L	5	VMS9447	VXX17499	
1,2-Dibromoethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
Carbon tetrachloride	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1,1,2-Tetrachloroethane	ND	2.50	ug/L	5	VMS9447	VXX17499	
Chloroform	ND	5.00	ug/L	5	VMS9447	VXX17499	
Bromobenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Chloromethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,2,3-Trichloropropane	ND	5.00	ug/L	5	VMS9447	VXX17499	
Bromomethane	ND	15.0	ug/L	5	VMS9447	VXX17499	
Bromochloromethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
Vinyl chloride	ND	5.00	ug/L	5	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B30MW**
SGS Ref. #: 1075115004
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:50
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Dichlorodifluoromethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
Chloroethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
sec-Butylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Bromodichloromethane	ND	2.50	ug/L	5	VMS9447	VXX17499	
1,1-Dichloroethene	ND	5.00	ug/L	5	VMS9447	VXX17499	
2-Butanone (MEK)	ND	50.0	ug/L	5	VMS9447	VXX17499	
Methylene chloride	ND	25.0	ug/L	5	VMS9447	VXX17499	
Trichlorofluoromethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
P & M -Xylene	ND	10.0	ug/L	5	VMS9447	VXX17499	
Naphthalene	ND	10.0	ug/L	5	VMS9447	VXX17499	
o-Xylene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Bromoform	ND	5.00	ug/L	5	VMS9447	VXX17499	
Xylenes (total)	ND	10.0	ug/L	5	VMS9447	VXX17499	
1,2,4-Trimethylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
tert-Butylbenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1,1-Trichloroethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1-Dichloroethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
2-Chlorotoluene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Trichloroethene	ND	5.00	ug/L	5	VMS9447	VXX17499	
trans-1,2-Dichloroethene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,2-Dichlorobenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
2,2-Dichloropropane	ND	5.00	ug/L	5	VMS9447	VXX17499	
Hexachlorobutadiene	ND	5.00	ug/L	5	VMS9447	VXX17499	
Isopropylbenzene (Cumene)	ND	5.00	ug/L	5	VMS9447	VXX17499	
2-Hexanone	ND	50.0	ug/L	5	VMS9447	VXX17499	
1,2-Dichloropropane	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1-Dichloropropene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,1,2-Trichloroethane	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,3-Dichlorobenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,2,3-Trichlorobenzene	ND	5.00	ug/L	5	VMS9447	VXX17499	
1,2-Dichloroethane-D4 <surr>	104	73-120	%	5	VMS9447	VXX17499	
Toluene-d8 <surr>	93.2	80-120	%	5	VMS9447	VXX17499	
4-Bromofluorobenzene <surr>	105	76-120	%	5	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-3 B30MW**
SGS Ref. #: 1075115004
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 17:50
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9447		Prep Batch: VXX17499				Initial Prep Wt./Vol.: 5 mL	
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL	
Analysis Date/Time: 10/10/07 00:03		Prep Date/Time: 10/09/07 11:16				Container ID:1075115004-A	
Dilution Factor: 5						Analyst: JDB	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBW**
SGS Ref. #: 1075115005
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	ug/L	1	VMS9447	VXX17499	
Toluene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Ethylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
n-Butylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Carbon disulfide	ND	2.00	ug/L	1	VMS9447	VXX17499	
1,4-Dichlorobenzene	ND	0.500	ug/L	1	VMS9447	VXX17499	
1,2-Dichloroethane	ND	0.500	ug/L	1	VMS9447	VXX17499	
1,3,5-Trimethylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
4-Chlorotoluene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Chlorobenzene	ND	0.500	ug/L	1	VMS9447	VXX17499	
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L	1	VMS9447	VXX17499	
cis-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9447	VXX17499	
4-Isopropyltoluene	ND	1.00	ug/L	1	VMS9447	VXX17499	
cis-1,3-Dichloropropene	ND	0.500	ug/L	1	VMS9447	VXX17499	
n-Propylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Styrene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Dibromomethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
trans-1,3-Dichloropropene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,2,4-Trichlorobenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1,2,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9447	VXX17499	
1,2-Dibromo-3-chloropropane	ND	2.00	ug/L	1	VMS9447	VXX17499	
Methyl-t-butyl ether	ND	5.00	ug/L	1	VMS9447	VXX17499	
Tetrachloroethene	ND	1.00	ug/L	1	VMS9447	VXX17499	
2-Chloroethyl Vinyl Ether	ND	10.0	ug/L	1	VMS9447	VXX17499	
Dibromochloromethane	ND	0.500	ug/L	1	VMS9447	VXX17499	
1,3-Dichloropropane	ND	0.400	ug/L	1	VMS9447	VXX17499	
1,2-Dibromoethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
Carbon tetrachloride	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L	1	VMS9447	VXX17499	
Chloroform	ND	1.00	ug/L	1	VMS9447	VXX17499	
Bromobenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Chloromethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,2,3-Trichloropropane	ND	1.00	ug/L	1	VMS9447	VXX17499	
Bromomethane	ND	3.00	ug/L	1	VMS9447	VXX17499	
Bromochloromethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
Vinyl chloride	ND	1.00	ug/L	1	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBW**
SGS Ref. #: 1075115005
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Dichlorodifluoromethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
Chloroethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
sec-Butylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Bromodichloromethane	ND	0.500	ug/L	1	VMS9447	VXX17499	
1,1-Dichloroethene	ND	1.00	ug/L	1	VMS9447	VXX17499	
2-Butanone (MEK)	ND	10.0	ug/L	1	VMS9447	VXX17499	
Methylene chloride	ND	5.00	ug/L	1	VMS9447	VXX17499	
Trichlorofluoromethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
P & M -Xylene	ND	2.00	ug/L	1	VMS9447	VXX17499	
Naphthalene	ND	2.00	ug/L	1	VMS9447	VXX17499	
o-Xylene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Bromoform	ND	1.00	ug/L	1	VMS9447	VXX17499	
Xylenes (total)	ND	2.00	ug/L	1	VMS9447	VXX17499	
1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
tert-Butylbenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1,1-Trichloroethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1-Dichloroethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
2-Chlorotoluene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Trichloroethene	ND	1.00	ug/L	1	VMS9447	VXX17499	
trans-1,2-Dichloroethene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,2-Dichlorobenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
2,2-Dichloropropane	ND	1.00	ug/L	1	VMS9447	VXX17499	
Hexachlorobutadiene	ND	1.00	ug/L	1	VMS9447	VXX17499	
Isopropylbenzene (Cumene)	ND	1.00	ug/L	1	VMS9447	VXX17499	
2-Hexanone	ND	10.0	ug/L	1	VMS9447	VXX17499	
1,2-Dichloropropane	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1-Dichloropropene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,1,2-Trichloroethane	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,3-Dichlorobenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,2,3-Trichlorobenzene	ND	1.00	ug/L	1	VMS9447	VXX17499	
1,2-Dichloroethane-D4 <surr>	108	73-120	%	1	VMS9447	VXX17499	
Toluene-d8 <surr>	95	80-120	%	1	VMS9447	VXX17499	
4-Bromofluorobenzene <surr>	110	76-120	%	1	VMS9447	VXX17499	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBW**
SGS Ref. #: 1075115005
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/25/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9447		Prep Batch: VXX17499				Initial Prep Wt./Vol.: 5 mL	
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL	
Analysis Date/Time: 10/09/07 22:24		Prep Date/Time: 10/09/07 11:16				Container ID:1075115005-A	
Dilution Factor: 1						Analyst: JDB	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	ND	48.3	ug/Kg	1	MCV3732	MXX19595	

Batch Information

Analytical Batch: MCV3732
Analytical Method: SW7471A
Analysis Date/Time: 10/02/07 17:07
Dilution Factor: 1

Prep Batch: MXX19595
Prep Method: METHOD
Prep Date/Time: 10/02/07 12:50

Initial Prep Wt./Vol.: 0.609 g
Prep Extract Vol.: 50 mL
Container ID:1075115006-B
Analyst: AFH



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Arsenic	2.32	1.20	mg/Kg	10	MMS5134	MXX19617	
Barium	47.8	0.359	mg/Kg	10	MMS5134	MXX19617	
Cadmium	ND	0.239	mg/Kg	10	MMS5134	MXX19617	
Chromium	36.3	0.479	mg/Kg	10	MMS5134	MXX19617	
Lead	3.53	0.239	mg/Kg	10	MMS5134	MXX19617	
Selenium	ND	0.598	mg/Kg	10	MMS5134	MXX19617	
Silver	ND	0.120	mg/Kg	10	MMS5134	MXX19617	

Batch Information

Analytical Batch: MMS5134
Analytical Method: SW6020
Analysis Date/Time: 10/11/07 09:51
Dilution Factor: 10

Prep Batch: MXX19617
Prep Method: SW3050B
Prep Date/Time: 10/09/07 07:10

Initial Prep Wt./Vol.: 1.023 g
Prep Extract Vol.: 50 mL
Container ID:1075115006-B
Analyst: TK



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	1.36	mg/Kg	1	VFC8648	VXX17422	
4-Bromofluorobenzene <sur>	44.5	* 50-150	%	1	VFC8648	VXX17422	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 20:51
Dilution Factor: 1

Prep Batch: VXX17422
Prep Method: AK101
Prep Date/Time: 09/24/07 10:45

Initial Prep Wt./Vol.: 112.774 g
Prep Extract Vol.: 25 mL
Container ID:1075115006-A
Analyst: NHN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	ND	24.0	mg/Kg	1	XFC7649	XXX18680	
Residual Range Organics	ND	24.0	mg/Kg	1	XFC7649	XXX18680	
5a Androstane <sur>	82.9	50-150	%	1	XFC7649	XXX18680	
n-Triacontane-d62 <sur>	113	50-150	%	1	XFC7649	XXX18680	

Batch Information

Analytical Batch: XFC7649
Analytical Method: AK102
Analysis Date/Time: 10/07/07 13:45
Dilution Factor: 1

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.578 g
Prep Extract Vol.: 1 mL
Container ID:1075115006-B
Analyst: HKG

Analytical Batch: XFC7649
Analytical Method: AK103
Analysis Date/Time: 10/07/07 13:45
Dilution Factor: 1

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.578 g
Prep Extract Vol.: 1 mL
Container ID:1075115006-B
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1221	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1232	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1242	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1248	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1254	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1260	ND	60.9	ug/Kg	1	XGC5972	XXX18675	
Decachlorobiphenyl <sur>	113	60-125	%	1	XGC5972	XXX18675	

Batch Information

Analytical Batch: XGC5972
Analytical Method: SW8082
Analysis Date/Time: 10/07/07 21:01
Dilution Factor: 1

Prep Batch: XXX18675
Prep Method: SW3550B
Prep Date/Time: 10/04/07 14:40

Initial Prep Wt./Vol.: 22.601 g
Prep Extract Vol.: 5 mL
Container ID: 1075115006-B
Analyst: SCL



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Benzene	ND	7.06	ug/Kg	1	VMS9437	VXX17483	
Toluene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Ethylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
n-Butylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Carbon disulfide	ND	54.3	ug/Kg	1	VMS9437	VXX17483	
1,4-Dichlorobenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,3,5-Trimethylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
4-Chlorotoluene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Chlorobenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
4-Methyl-2-pentanone (MIBK)	ND	136	ug/Kg	1	VMS9437	VXX17483	
cis-1,2-Dichloroethene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
4-Isopropyltoluene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
cis-1,3-Dichloropropene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
n-Propylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Styrene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Dibromomethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
trans-1,3-Dichloropropene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trichlorobenzene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
1,1,2,2-Tetrachloroethane	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromo-3-chloropropane	ND	54.3	ug/Kg	1	VMS9437	VXX17483	
Tetrachloroethene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
2-Chloroethyl Vinyl Ether	ND	54.3	ug/Kg	1	VMS9437	VXX17483	
Dibromochloromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichloropropane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromoethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Carbon tetrachloride	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1,1,2-Tetrachloroethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Chloroform	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Bromobenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Chloromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichloropropane	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Bromomethane	ND	109	ug/Kg	1	VMS9437	VXX17483	
Bromochloromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Vinyl chloride	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Dichlorodifluoromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	109	ug/Kg	1	VMS9437	VXX17483	
sec-Butylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Bromodichloromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
2-Butanone (MEK)	ND	136	ug/Kg	1	VMS9437	VXX17483	
Methylene chloride	ND	54.3	ug/Kg	1	VMS9437	VXX17483	
Trichlorofluoromethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
P & M -Xylene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Naphthalene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
o-Xylene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Bromoform	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Xylenes (total)	ND	54.3	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trimethylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
tert-Butylbenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1,1-Trichloroethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
2-Chlorotoluene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Trichloroethene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
trans-1,2-Dichloroethene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichlorobenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
2,2-Dichloropropane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
Hexachlorobutadiene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Isopropylbenzene (Cumene)	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
2-Hexanone	ND	136	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloropropane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloropropene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,1,2-Trichloroethane	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichlorobenzene	ND	13.6	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichlorobenzene	ND	27.1	ug/Kg	1	VMS9437	VXX17483	
Methyl-t-butyl ether	ND	21.7	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane-D4 <surr>	102	80-137	%	1	VMS9437	VXX17483	
Toluene-d8 <surr>	110	80-122	%	1	VMS9437	VXX17483	
4-Bromofluorobenzene <surr>	48.3	42-147	%	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9437		Prep Batch: VXX17483				Initial Prep Wt./Vol.: 112.774 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 10/08/07 21:06		Prep Date/Time: 09/24/07 10:45				Container ID:1075115006-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-B20S2**
SGS Ref. #: 1075115006
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 81.7

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	81.7		%	1	SPT7422		

Batch Information

Analytical Batch: SPT7422
Analytical Method: SM20 2540G
Analysis Date/Time: 09/29/07 13:10
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1075115006-B
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Metals Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Mercury	147	69.4	ug/Kg	1	MCV3732	MXX19595	

Batch Information

Analytical Batch: MCV3732
Analytical Method: SW7471A
Analysis Date/Time: 10/02/07 17:10
Dilution Factor: 1

Prep Batch: MXX19595
Prep Method: METHOD
Prep Date/Time: 10/02/07 12:50

Initial Prep Wt./Vol.: 0.608 g
Prep Extract Vol.: 50 mL
Container ID:1075115007-B
Analyst: AFH



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Arsenic	7.96	1.75	mg/Kg	10	MMS5134	MXX19617	
Barium	187	0.525	mg/Kg	10	MMS5134	MXX19617	
Cadmium	0.599	0.350	mg/Kg	10	MMS5134	MXX19617	
Chromium	47.1	0.700	mg/Kg	10	MMS5134	MXX19617	
Lead	24.6	0.350	mg/Kg	10	MMS5134	MXX19617	
Selenium	1.39	0.875	mg/Kg	10	MMS5134	MXX19617	
Silver	ND	0.175	mg/Kg	10	MMS5134	MXX19617	

Batch Information

Analytical Batch: MMS5134
Analytical Method: SW6020
Analysis Date/Time: 10/11/07 09:57
Dilution Factor: 10

Prep Batch: MXX19617
Prep Method: SW3050B
Prep Date/Time: 10/09/07 07:10

Initial Prep Wt./Vol.: 1.005 g
Prep Extract Vol.: 50 mL
Container ID:1075115007-B
Analyst: TK



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	5.09	mg/Kg	1	VFC8648	VXX17422	
4-Bromofluorobenzene <sur>	46.2	* 50-150	%	1	VFC8648	VXX17422	

Batch Information

Analytical Batch: VFC8648
Analytical Method: AK101
Analysis Date/Time: 09/28/07 17:17
Dilution Factor: 1

Prep Batch: VXX17422
Prep Method: AK101
Prep Date/Time: 09/24/07 12:00

Initial Prep Wt./Vol.: 43.164 g
Prep Extract Vol.: 25 mL
Container ID:1075115007-A
Analyst: NHN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	180	140	mg/Kg	4	XFC7649	XXX18680	
Residual Range Organics	531	140	mg/Kg	4	XFC7649	XXX18680	
5a Androstane <surr>	66.8	50-150	%	4	XFC7649	XXX18680	
n-Triacontane-d62 <surr>	91.4	50-150	%	4	XFC7649	XXX18680	

Batch Information

Analytical Batch: XFC7649
Analytical Method: AK102
Analysis Date/Time: 10/07/07 13:55
Dilution Factor: 4

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.074 g
Prep Extract Vol.: 1 mL
Container ID:1075115007-B
Analyst: HKG

Analytical Batch: XFC7649
Analytical Method: AK103
Analysis Date/Time: 10/07/07 13:55
Dilution Factor: 4

Prep Batch: XXX18680
Prep Method: SW3550B
Prep Date/Time: 10/05/07 11:00

Initial Prep Wt./Vol.: 30.074 g
Prep Extract Vol.: 1 mL
Container ID:1075115007-B
Analyst: HKG



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Aroclor-1016	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1221	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1232	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1242	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1248	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1254	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Aroclor-1260	ND	87.6	ug/Kg	1	XGC5972	XXX18675	
Decachlorobiphenyl <sur>	97.2	60-125	%	1	XGC5972	XXX18675	

Batch Information

Analytical Batch: XGC5972
Analytical Method: SW8082
Analysis Date/Time: 10/07/07 21:28
Dilution Factor: 1

Prep Batch: XXX18675
Prep Method: SW3550B
Prep Date/Time: 10/04/07 14:40

Initial Prep Wt./Vol.: 22.586 g
Prep Extract Vol.: 5 mL
Container ID: 1075115007-B
Analyst: SCL



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	26.5	ug/Kg	1	VMS9437	VXX17483	
Toluene	ND	102	ug/Kg	1	VMS9437	VXX17483	
Ethylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
n-Butylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Carbon disulfide	ND	204	ug/Kg	1	VMS9437	VXX17483	
1,4-Dichlorobenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,3,5-Trimethylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
4-Chlorotoluene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Chlorobenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
4-Methyl-2-pentanone (MIBK)	ND	509	ug/Kg	1	VMS9437	VXX17483	
cis-1,2-Dichloroethene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
4-Isopropyltoluene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
cis-1,3-Dichloropropene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
n-Propylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Styrene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Dibromomethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
trans-1,3-Dichloropropene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trichlorobenzene	ND	102	ug/Kg	1	VMS9437	VXX17483	
1,1,2,2-Tetrachloroethane	ND	102	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromo-3-chloropropane	ND	204	ug/Kg	1	VMS9437	VXX17483	
Tetrachloroethene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
2-Chloroethyl Vinyl Ether	ND	204	ug/Kg	1	VMS9437	VXX17483	
Dibromochloromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichloropropane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromoethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Carbon tetrachloride	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1,1,2-Tetrachloroethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Chloroform	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Bromobenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Chloromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichloropropane	ND	102	ug/Kg	1	VMS9437	VXX17483	
Bromomethane	ND	407	ug/Kg	1	VMS9437	VXX17483	
Bromochloromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Vinyl chloride	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Dichlorodifluoromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	407	ug/Kg	1	VMS9437	VXX17483	
sec-Butylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Bromodichloromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
2-Butanone (MEK)	ND	509	ug/Kg	1	VMS9437	VXX17483	
Methylene chloride	ND	204	ug/Kg	1	VMS9437	VXX17483	
Trichlorofluoromethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
P & M -Xylene	ND	102	ug/Kg	1	VMS9437	VXX17483	
Naphthalene	ND	102	ug/Kg	1	VMS9437	VXX17483	
o-Xylene	ND	102	ug/Kg	1	VMS9437	VXX17483	
Bromoform	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Xylenes (total)	ND	204	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trimethylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
tert-Butylbenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1,1-Trichloroethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
2-Chlorotoluene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Trichloroethene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
trans-1,2-Dichloroethene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichlorobenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
2,2-Dichloropropane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
Hexachlorobutadiene	ND	102	ug/Kg	1	VMS9437	VXX17483	
Isopropylbenzene (Cumene)	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
2-Hexanone	ND	509	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloropropane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloropropene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,1,2-Trichloroethane	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichlorobenzene	ND	50.9	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichlorobenzene	ND	102	ug/Kg	1	VMS9437	VXX17483	
Methyl-t-butyl ether	ND	81.5	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane-D4 <surr>	101	80-137	%	1	VMS9437	VXX17483	
Toluene-d8 <surr>	115	80-122	%	1	VMS9437	VXX17483	
4-Bromofluorobenzene <surr>	61.9	42-147	%	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9437		Prep Batch: VXX17483				Initial Prep Wt./Vol.: 43.164 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 10/08/07 21:39		Prep Date/Time: 09/24/07 12:00				Container ID:1075115007-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **01886-S11**
SGS Ref. #: 1075115007
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 56.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 12:00
Receipt Date/Time: 09/26/07 16:15

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	56.9		%	1	SPT7422		

Batch Information

Analytical Batch: SPT7422
Analytical Method: SM20 2540G
Analysis Date/Time: 09/29/07 13:10
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1075115007-B
Analyst: BEN



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBS**
SGS Ref. #: 1075115008
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Benzene	ND	12.9	ug/Kg	1	VMS9437	VXX17483	
Toluene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Ethylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
n-Butylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Carbon disulfide	ND	99.3	ug/Kg	1	VMS9437	VXX17483	
1,4-Dichlorobenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,3,5-Trimethylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
4-Chlorotoluene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Chlorobenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
4-Methyl-2-pentanone (MIBK)	ND	248	ug/Kg	1	VMS9437	VXX17483	
cis-1,2-Dichloroethene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
4-Isopropyltoluene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
cis-1,3-Dichloropropene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
n-Propylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Styrene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Dibromomethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
trans-1,3-Dichloropropene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trichlorobenzene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
1,1,2,2-Tetrachloroethane	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromo-3-chloropropane	ND	99.3	ug/Kg	1	VMS9437	VXX17483	
Tetrachloroethene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
2-Chloroethyl Vinyl Ether	ND	99.3	ug/Kg	1	VMS9437	VXX17483	
Dibromochloromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichloropropane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dibromoethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Carbon tetrachloride	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1,1,2-Tetrachloroethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Chloroform	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Bromobenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Chloromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichloropropane	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Bromomethane	ND	199	ug/Kg	1	VMS9437	VXX17483	
Bromochloromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Vinyl chloride	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Dichlorodifluoromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBS**
SGS Ref. #: 1075115008
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Chloroethane	ND	199	ug/Kg	1	VMS9437	VXX17483	
sec-Butylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Bromodichloromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
2-Butanone (MEK)	ND	248	ug/Kg	1	VMS9437	VXX17483	
Methylene chloride	ND	99.3	ug/Kg	1	VMS9437	VXX17483	
Trichlorofluoromethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
P & M -Xylene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Naphthalene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
o-Xylene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Bromoform	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Xylenes (total)	ND	99.3	ug/Kg	1	VMS9437	VXX17483	
1,2,4-Trimethylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
tert-Butylbenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1,1-Trichloroethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloroethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
2-Chlorotoluene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Trichloroethene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
trans-1,2-Dichloroethene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichlorobenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
2,2-Dichloropropane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
Hexachlorobutadiene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Isopropylbenzene (Cumene)	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
2-Hexanone	ND	248	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloropropane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1-Dichloropropene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,1,2-Trichloroethane	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,3-Dichlorobenzene	ND	24.8	ug/Kg	1	VMS9437	VXX17483	
1,2,3-Trichlorobenzene	ND	49.7	ug/Kg	1	VMS9437	VXX17483	
Methyl-t-butyl ether	ND	39.7	ug/Kg	1	VMS9437	VXX17483	
1,2-Dichloroethane-D4 <surrr>	101	80-137	%	1	VMS9437	VXX17483	
Toluene-d8 <surrr>	105	80-122	%	1	VMS9437	VXX17483	
4-Bromofluorobenzene <surrr>	95.7	42-147	%	1	VMS9437	VXX17483	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBS**
SGS Ref. #: 1075115008
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Batch Information							
Analytical Batch: VMS9437		Prep Batch: VXX17483				Initial Prep Wt./Vol.: 50.328 g	
Analytical Method: SW8260B		Prep Method: SW5035A				Prep Extract Vol.: 25 mL	
Analysis Date/Time: 10/08/07 13:36		Prep Date/Time: 09/24/07 10:45				Container ID:1075115008-A	
Dilution Factor: 1						Analyst: KPW	



Shannon & Wilson Inc.

Print Date: 10/16/2007

Client Sample ID: **TBS**
SGS Ref. #: 1075115008
Project ID: 32-1-01886-3 Anc Fish Hatchery
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 09/24/07 10:45
Receipt Date/Time: 09/26/07 16:15

Solids

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Total Solids	100		%	1	SPT7422		

Batch Information

Analytical Batch: SPT7422
Analytical Method: SM20 2540G
Analysis Date/Time: 09/29/07 13:10
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1075115008-A
Analyst: BEN



SGS Ref.# 795043 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17421
Method SW5030B
Date 09/28/2007

QC results affect the following production samples:
1075115003, 1075115004

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

Gasoline Range Organics	ND	0.100	0.0100	mg/L	09/28/07
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Surrogates

4-Bromofluorobenzene <surr>	100	50-150		%	09/28/07
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Batch VFC8648
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 795046 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17422
Method AK101
Date 09/28/2007

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

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

Gasoline Range Organics	ND	2.50	0.500	mg/Kg	09/28/07
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Surrogates

4-Bromofluorobenzene <surr>	104	50-150		%	09/28/07
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Batch VFC8648
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 795320 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch
Method
Date

QC results affect the following production samples:
1075115001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Solids

Total Solids	100			%	09/29/07
Batch	SPT7419				
Method	SM20 2540G				
Instrument					



SGS Ref.# 795335 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch
Method
Date

QC results affect the following production samples:
1075115002, 1075115006, 1075115007, 1075115008

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Solids

Total Solids	100			%	09/29/07
Batch	SPT7422				
Method	SM20 2540G				
Instrument					



SGS Ref.# 795883 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch MXX19595
Method METHOD
Date 10/02/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Metals Department

Mercury	ND	40.0	12.0	ug/Kg	10/02/07
Batch	MCV3732				
Method	SW7471A				
Instrument	PSA Millennium mercury AA				



SGS Ref.# 796434 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18675
Method SW3550B
Date 10/04/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Polychlorinated Biphenyls

Aroclor-1016	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1221	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1232	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1242	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1248	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1254	ND	50.0	15.0	ug/Kg	10/07/07
Aroclor-1260	ND	50.0	15.0	ug/Kg	10/07/07

Surrogates

Decachlorobiphenyl <surr>	120	60-125		%	10/07/07
Batch	XGC5972				
Method	SW8082				
Instrument	HP 5890 Series II ECD SV I F				



SGS Ref.# 796655 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18680
Method SW3550B
Date 10/05/2007

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	19.9	1.99	mg/Kg	10/07/07
Surrogates					
5a Androstane <surr>	67.4	60-120		%	10/07/07
Batch	XFC7649				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				
Residual Range Organics	4.92 J	19.9	1.99	mg/Kg	10/07/07
Surrogates					
n-Triacontane-d62 <surr>	83.9	60-120		%	10/07/07
Batch	XFC7649				
Method	AK103				
Instrument	HP 5890 Series II FID SV D F				



SGS Ref.# 796969 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18686
Method SW3520C
Date 10/07/2007

QC results affect the following production samples:
1075115003, 1075115004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	0.300	0.0600	mg/L	10/14/07
Surrogates					
5a Androstane <surr>	93	60-120		%	10/14/07
Batch	XFC7666				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				
Residual Range Organics	0.132 J	0.500	0.100	mg/L	10/14/07
Surrogates					
n-Triacontane-d62 <surr>	121	* 60-120		%	10/14/07
Batch	XFC7666				
Method	AK103				
Instrument	HP 5890 Series II FID SV D F				



SGS Ref.# 797320 Leaching Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

QC results affect the following production samples:
1075115003, 1075115004, 1075115005

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>TCLP Volatiles GC/MS</u>					
1,1-Dichloroethene	ND	50.0	15.5	ug/L	10/09/07
1,2-Dichloroethane	ND	25.0	7.50	ug/L	10/09/07
1,4-Dichlorobenzene	ND	25.0	7.50	ug/L	10/09/07
2-Butanone (MEK)	ND	500	155	ug/L	10/09/07
Benzene	ND	20.0	6.00	ug/L	10/09/07
Carbon tetrachloride	ND	50.0	15.5	ug/L	10/09/07
Chlorobenzene	ND	25.0	7.50	ug/L	10/09/07
Chloroform	ND	50.0	15.0	ug/L	10/09/07
Hexachlorobutadiene	ND	50.0	15.5	ug/L	10/09/07
Tetrachloroethene	ND	50.0	15.5	ug/L	10/09/07
Trichloroethene	ND	50.0	15.5	ug/L	10/09/07
Vinyl chloride	ND	50.0	15.5	ug/L	10/09/07
Surrogates					
1,2-Dichloroethane-D4 <surr>	110	73-120		%	10/09/07
4-Bromofluorobenzene <surr>	104	76-120		%	10/09/07
Toluene-d8 <surr>	96.2	80-120		%	10/09/07
Batch	VMS9447				
Method	SW8260B				
Instrument	HP 5890 Series II MS1 VJA				



SGS Ref.# 797353 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007, 1075115008

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797353 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Benzene	ND	13.0	3.90	ug/Kg	10/08/07
Toluene	ND	50.0	15.0	ug/Kg	10/08/07
Ethylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
n-Butylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
Carbon disulfide	ND	100	31.0	ug/Kg	10/08/07
1,4-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/08/07
1,2-Dichloroethane	ND	25.0	7.80	ug/Kg	10/08/07
1,3,5-Trimethylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
4-Chlorotoluene	ND	25.0	7.80	ug/Kg	10/08/07
Chlorobenzene	ND	25.0	7.80	ug/Kg	10/08/07
4-Methyl-2-pentanone (MIBK)	ND	250	78.0	ug/Kg	10/08/07
cis-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	10/08/07
4-Isopropyltoluene	ND	25.0	7.80	ug/Kg	10/08/07
cis-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	10/08/07
n-Propylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
Styrene	ND	25.0	7.80	ug/Kg	10/08/07
Dibromomethane	ND	25.0	7.80	ug/Kg	10/08/07
trans-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	10/08/07
1,2,4-Trichlorobenzene	ND	50.0	15.0	ug/Kg	10/08/07
1,1,2,2-Tetrachloroethane	ND	50.0	15.0	ug/Kg	10/08/07
1,2-Dibromo-3-chloropropane	ND	100	31.0	ug/Kg	10/08/07
Tetrachloroethene	ND	25.0	7.80	ug/Kg	10/08/07
Dibromochloromethane	ND	25.0	7.80	ug/Kg	10/08/07
1,3-Dichloropropane	ND	25.0	7.80	ug/Kg	10/08/07
1,2-Dibromoethane	ND	25.0	7.80	ug/Kg	10/08/07
Carbon tetrachloride	ND	25.0	7.80	ug/Kg	10/08/07
1,1,1,2-Tetrachloroethane	ND	25.0	7.80	ug/Kg	10/08/07
Chloroform	ND	25.0	7.80	ug/Kg	10/08/07
Bromobenzene	ND	25.0	7.80	ug/Kg	10/08/07
Chloromethane	ND	25.0	7.80	ug/Kg	10/08/07
1,2,3-Trichloropropane	ND	50.0	15.0	ug/Kg	10/08/07
Bromomethane	ND	200	62.0	ug/Kg	10/08/07
Bromochloromethane	ND	25.0	7.80	ug/Kg	10/08/07
Vinyl chloride	ND	25.0	7.80	ug/Kg	10/08/07
Dichlorodifluoromethane	ND	25.0	7.80	ug/Kg	10/08/07
Chloroethane	ND	200	62.0	ug/Kg	10/08/07
sec-Butylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
Bromodichloromethane	ND	25.0	7.80	ug/Kg	10/08/07
1,1-Dichloroethene	ND	25.0	7.80	ug/Kg	10/08/07



SGS Ref.# 797353 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

2-Butanone (MEK)	ND	250	78.0	ug/Kg	10/08/07
Methylene chloride	ND	100	31.0	ug/Kg	10/08/07
Trichlorofluoromethane	ND	25.0	7.80	ug/Kg	10/08/07
P & M -Xylene	ND	50.0	15.0	ug/Kg	10/08/07
Naphthalene	ND	50.0	15.0	ug/Kg	10/08/07
o-Xylene	ND	50.0	15.0	ug/Kg	10/08/07
Bromoform	ND	25.0	7.80	ug/Kg	10/08/07
Xylenes (total)	ND	100	30.0	ug/Kg	10/08/07
1,2,4-Trimethylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
tert-Butylbenzene	ND	25.0	7.80	ug/Kg	10/08/07
1,1,1-Trichloroethane	ND	25.0	7.80	ug/Kg	10/08/07
1,1-Dichloroethane	ND	25.0	7.80	ug/Kg	10/08/07
2-Chlorotoluene	ND	25.0	7.80	ug/Kg	10/08/07
Trichloroethene	ND	25.0	7.80	ug/Kg	10/08/07
trans-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	10/08/07
1,2-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/08/07
2,2-Dichloropropane	ND	25.0	7.80	ug/Kg	10/08/07
Hexachlorobutadiene	ND	50.0	15.0	ug/Kg	10/08/07
Isopropylbenzene (Cumene)	ND	25.0	7.80	ug/Kg	10/08/07
2-Hexanone	ND	250	78.0	ug/Kg	10/08/07
1,2-Dichloropropane	ND	25.0	7.80	ug/Kg	10/08/07
1,1-Dichloropropene	ND	25.0	7.80	ug/Kg	10/08/07
1,1,2-Trichloroethane	ND	25.0	7.80	ug/Kg	10/08/07
1,3-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/08/07
1,2,3-Trichlorobenzene	ND	50.0	15.0	ug/Kg	10/08/07
Methyl-t-butyl ether	ND	40.0	12.0	ug/Kg	10/08/07

Surrogates

1,2-Dichloroethane-D4 <surr>	99.7	80-137		%	10/08/07
Toluene-d8 <surr>	106	80-122		%	10/08/07
4-Bromofluorobenzene <surr>	101	42-147		%	10/08/07

Batch VMS9437
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 797413 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch MXX19617
Method SW3050B
Date 10/09/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Metals by ICP/MS					
Arsenic	ND	1.00	0.310	mg/Kg	10/10/07
Barium	ND	0.300	0.0940	mg/Kg	10/10/07
Cadmium	ND	0.200	0.0620	mg/Kg	10/10/07
Chromium	1.59	* 0.400	0.120	mg/Kg	10/10/07
Lead	ND	0.200	0.0620	mg/Kg	10/10/07
Selenium	0.162 J	0.500	0.150	mg/Kg	10/10/07
Silver	ND	0.100	0.0310	mg/Kg	10/10/07
Batch	MMS5133				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				



SGS Ref.# 797691 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

QC results affect the following production samples:
1075115003, 1075115004, 1075115005

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797691 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Benzene	ND	0.400	0.120	ug/L	10/09/07
Toluene	ND	1.00	0.310	ug/L	10/09/07
Ethylbenzene	ND	1.00	0.310	ug/L	10/09/07
n-Butylbenzene	ND	1.00	0.310	ug/L	10/09/07
Carbon disulfide	ND	2.00	0.620	ug/L	10/09/07
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	10/09/07
1,2-Dichloroethane	ND	0.500	0.150	ug/L	10/09/07
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	10/09/07
4-Chlorotoluene	ND	1.00	0.310	ug/L	10/09/07
Chlorobenzene	ND	0.500	0.150	ug/L	10/09/07
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	10/09/07
cis-1,2-Dichloroethene	0.360 J	1.00	0.310	ug/L	10/09/07
4-Isopropyltoluene	ND	1.00	0.310	ug/L	10/09/07
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	10/09/07
n-Propylbenzene	ND	1.00	0.310	ug/L	10/09/07
Styrene	ND	1.00	0.310	ug/L	10/09/07
Dibromomethane	ND	1.00	0.310	ug/L	10/09/07
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	10/09/07
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	10/09/07
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	10/09/07
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	10/09/07
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	10/09/07
Tetrachloroethene	ND	1.00	0.310	ug/L	10/09/07
Dibromochloromethane	ND	0.500	0.150	ug/L	10/09/07
1,3-Dichloropropane	ND	0.400	0.120	ug/L	10/09/07
1,2-Dibromoethane	ND	1.00	0.310	ug/L	10/09/07
Carbon tetrachloride	ND	1.00	0.310	ug/L	10/09/07
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	10/09/07
Chloroform	ND	1.00	0.300	ug/L	10/09/07
Bromobenzene	ND	1.00	0.310	ug/L	10/09/07
Chloromethane	0.310 J	1.00	0.310	ug/L	10/09/07
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	10/09/07
Bromomethane	ND	3.00	0.940	ug/L	10/09/07
Bromochloromethane	ND	1.00	0.310	ug/L	10/09/07
Vinyl chloride	ND	1.00	0.310	ug/L	10/09/07
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	10/09/07
Chloroethane	ND	1.00	0.310	ug/L	10/09/07
sec-Butylbenzene	ND	1.00	0.310	ug/L	10/09/07
Bromodichloromethane	ND	0.500	0.150	ug/L	10/09/07



SGS Ref.# 797691 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloroethene	ND	1.00	0.310	ug/L	10/09/07
2-Butanone (MEK)	ND	10.0	3.10	ug/L	10/09/07
Methylene chloride	ND	5.00	1.00	ug/L	10/09/07
Trichlorofluoromethane	ND	1.00	0.310	ug/L	10/09/07
P & M -Xylene	ND	2.00	0.620	ug/L	10/09/07
Naphthalene	ND	2.00	0.620	ug/L	10/09/07
o-Xylene	ND	1.00	0.310	ug/L	10/09/07
Bromoform	ND	1.00	0.310	ug/L	10/09/07
Xylenes (total)	ND	2.00	1.00	ug/L	10/09/07
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	10/09/07
tert-Butylbenzene	ND	1.00	0.310	ug/L	10/09/07
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	10/09/07
1,1-Dichloroethane	ND	1.00	0.310	ug/L	10/09/07
2-Chlorotoluene	ND	1.00	0.310	ug/L	10/09/07
Trichloroethene	ND	1.00	0.310	ug/L	10/09/07
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	10/09/07
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	10/09/07
2,2-Dichloropropane	ND	1.00	0.310	ug/L	10/09/07
Hexachlorobutadiene	ND	1.00	0.310	ug/L	10/09/07
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	10/09/07
2-Hexanone	ND	10.0	3.10	ug/L	10/09/07
1,2-Dichloropropane	ND	1.00	0.310	ug/L	10/09/07
1,1-Dichloropropene	ND	1.00	0.310	ug/L	10/09/07
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	10/09/07
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	10/09/07
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	10/09/07

Surrogates

1,2-Dichloroethane-D4 <surr>	105	73-120		%	10/09/07
Toluene-d8 <surr>	95.1	80-120		%	10/09/07
4-Bromofluorobenzene <surr>	107	76-120		%	10/09/07

Batch VMS9447
Method SW8260B
Instrument HP 5890 Series II MS1 VJA



SGS Ref.# 795321 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Original 1075076003
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch
Method
Date

QC results affect the following production samples:
1075115001

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

Total Solids	87.5	87.4	%	0		09/29/2007
Batch	SPT7419					
Method	SM20 2540G					
Instrument						



SGS Ref.# 795336 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Original 1074693002
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch
Method
Date

QC results affect the following production samples:
1075115002, 1075115006, 1075115007, 1075115008

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

Total Solids	85.9	89.7	%	4	(< 5)	09/29/2007
Batch	SPT7422					
Method	SM20 2540G					
Instrument						



SGS Ref.# 795044 Lab Control Sample
795045 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17421
Method SW5030B
Date 09/28/2007

QC results affect the following production samples:

1075115003, 1075115004

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

Gasoline Range Organics	LCS 0.193	97	(60-120)			0.200 mg/L	09/28/2007
	LCSD 0.198	99		2	(< 20)	0.200 mg/L	09/28/2007

Surrogates

4-Bromofluorobenzene <surr>	LCS	102	(50-150)				09/28/2007
	LCSD	112		9			09/28/2007

Batch VFC8648
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 795047 Lab Control Sample
795048 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17422
Method AK101
Date 09/28/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

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

Gasoline Range Organics	LCS 10.7	95	(60-120)			11.3 mg/Kg	09/28/2007
	LCSD 10.7	95		0	(< 20)	11.3 mg/Kg	09/28/2007

Surrogates

4-Bromofluorobenzene <surr>	LCS	111	(50-150)				09/28/2007
	LCSD	111		0			09/28/2007

Batch VFC8648
Method AK101
Instrument HP 5890 Series II PID+FID VDA



SGS Ref.# 795884 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch MXX19595
Method METHOD
Date 10/02/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury	LCS	189	113	(83-118)		167 ug/Kg	10/02/2007
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Batch MCV3732
Method SW7471A
Instrument PSA Millennium mercury AA



SGS Ref.# 796435 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18675
Method SW3550B
Date 10/04/2007

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS 279	126 *	(47-120)			220 ug/Kg	10/07/2007
Aroclor-1260	LCS 287	130	(60-130)			220 ug/Kg	10/07/2007
Surrogates							
Decachlorobiphenyl <surr>	LCS	120	(60-125)				10/07/2007

Batch XGC5972
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 796656 Lab Control Sample
796657 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18680
Method SW3550B
Date 10/05/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

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	27.0	81	(75-125)		33.3 mg/Kg	10/07/2007
	LCSD	31.3	94		15	(< 20)	33.3 mg/Kg 10/07/2007

Surrogates

5a Androstane <surr>	LCS		76	(60-120)			10/07/2007
	LCSD		87		13		10/07/2007

Batch XFC7649
Method AK102
Instrument HP 5890 Series II FID SV D F

Residual Range Organics	LCS	31.7	95	(60-120)		33.3 mg/Kg	10/07/2007
	LCSD	33.2	100		4	(< 20)	33.3 mg/Kg 10/07/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		93	(60-120)			10/07/2007
	LCSD		102		9		10/07/2007

Batch XFC7649
Method AK103
Instrument HP 5890 Series II FID SV D F



SGS Ref.# 796970 Lab Control Sample
796971 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18686
Method SW3520C
Date 10/07/2007

QC results affect the following production samples:

1075115003, 1075115004

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	1.00	100	(75-125)		1 mg/L	10/14/2007
	LCSD	0.897	90		11	(< 20)	1 mg/L 10/14/2007

Surrogates

5a Androstane <surr>	LCS		98	(60-120)			10/14/2007
	LCSD		88		10		10/14/2007

Batch XFC7666
Method AK102
Instrument HP 5890 Series II FID SV D F

Residual Range Organics	LCS	1.07	107	(60-120)		1 mg/L	10/14/2007
	LCSD	0.953	95		12	(< 20)	1 mg/L 10/14/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		140 *	(60-120)			10/14/2007
	LCSD		116		19		10/14/2007

Batch XFC7666
Method AK103
Instrument HP 5890 Series II FID SV D F



SGS Ref.# 797354 Lab Control Sample

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007, 1075115008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797354 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 727	97	(80-125)			750 ug/Kg	10/08/2007
Toluene	LCS 741	99	(80-120)			750 ug/Kg	10/08/2007
Ethylbenzene	LCS 748	100	(80-120)			750 ug/Kg	10/08/2007
n-Butylbenzene	LCS 781	104	(80-123)			750 ug/Kg	10/08/2007
Carbon disulfide	LCS 1040	92	(61-135)			1130 ug/Kg	10/08/2007
1,4-Dichlorobenzene	LCS 734	98	(80-120)			750 ug/Kg	10/08/2007
1,2-Dichloroethane	LCS 706	94	(80-133)			750 ug/Kg	10/08/2007
1,3,5-Trimethylbenzene	LCS 759	101	(80-120)			750 ug/Kg	10/08/2007
4-Chlorotoluene	LCS 775	103	(80-120)			750 ug/Kg	10/08/2007
Chlorobenzene	LCS 755	101	(80-122)			750 ug/Kg	10/08/2007
4-Methyl-2-pentanone (MIBK)	LCS 2100	93	(76-120)			2250 ug/Kg	10/08/2007
cis-1,2-Dichloroethene	LCS 731	97	(80-124)			750 ug/Kg	10/08/2007
4-Isopropyltoluene	LCS 770	103	(80-120)			750 ug/Kg	10/08/2007
cis-1,3-Dichloropropene	LCS 738	98	(80-120)			750 ug/Kg	10/08/2007
n-Propylbenzene	LCS 775	103	(80-122)			750 ug/Kg	10/08/2007
Styrene	LCS 762	102	(80-120)			750 ug/Kg	10/08/2007
Dibromomethane	LCS 730	97	(79-126)			750 ug/Kg	10/08/2007
trans-1,3-Dichloropropene	LCS 742	99	(80-120)			750 ug/Kg	10/08/2007
1,2,4-Trichlorobenzene	LCS 756	101	(80-122)			750 ug/Kg	10/08/2007
1,1,2,2-Tetrachloroethane	LCS 746	100	(79-120)			750 ug/Kg	10/08/2007
1,2-Dibromo-3-chloropropane	LCS 722	96	(64-128)			750 ug/Kg	10/08/2007



SGS Ref.# 797354 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep **Batch** VXX17483
Method SW5035A
Date 10/08/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Tetrachloroethene	LCS 738	98	(78-124)			750 ug/Kg	10/08/2007
Dibromochloromethane	LCS 720	96	(80-122)			750 ug/Kg	10/08/2007
1,3-Dichloropropane	LCS 744	99	(80-120)			750 ug/Kg	10/08/2007
1,2-Dibromoethane	LCS 723	96	(80-121)			750 ug/Kg	10/08/2007
Carbon tetrachloride	LCS 727	97	(73-133)			750 ug/Kg	10/08/2007
1,1,1,2-Tetrachloroethane	LCS 758	101	(78-125)			750 ug/Kg	10/08/2007
Chloroform	LCS 729	97	(80-124)			750 ug/Kg	10/08/2007
Bromobenzene	LCS 747	100	(80-120)			750 ug/Kg	10/08/2007
Chloromethane	LCS 695	93	(68-129)			750 ug/Kg	10/08/2007
1,2,3-Trichloropropane	LCS 735	98	(75-121)			750 ug/Kg	10/08/2007
Bromomethane	LCS 635	85	(52-140)			750 ug/Kg	10/08/2007
Bromochloromethane	LCS 759	101	(78-125)			750 ug/Kg	10/08/2007
Vinyl chloride	LCS 709	95	(78-125)			750 ug/Kg	10/08/2007
Dichlorodifluoromethane	LCS 719	96	(67-135)			750 ug/Kg	10/08/2007
Chloroethane	LCS 974	130	(53-141)			750 ug/Kg	10/08/2007
sec-Butylbenzene	LCS 780	104	(80-120)			750 ug/Kg	10/08/2007
Bromodichloromethane	LCS 728	97	(80-126)			750 ug/Kg	10/08/2007
1,1-Dichloroethene	LCS 720	96	(73-126)			750 ug/Kg	10/08/2007
2-Butanone (MEK)	LCS 2080	93	(70-124)			2250 ug/Kg	10/08/2007
Methylene chloride	LCS 742	99	(76-124)			750 ug/Kg	10/08/2007



SGS Ref.# 797354 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Trichlorofluoromethane	LCS 648	86	(58-172)			750 ug/Kg	10/08/2007
P & M -Xylene	LCS 1490	99	(80-120)			1500 ug/Kg	10/08/2007
Naphthalene	LCS 726	97	(71-121)			750 ug/Kg	10/08/2007
o-Xylene	LCS 757	101	(80-120)			750 ug/Kg	10/08/2007
Bromoform	LCS 749	100	(74-129)			750 ug/Kg	10/08/2007
Xylenes (total)	LCS 2250	100	(80-120)			2250 ug/Kg	10/08/2007
1,2,4-Trimethylbenzene	LCS 750	100	(80-120)			750 ug/Kg	10/08/2007
tert-Butylbenzene	LCS 763	102	(80-120)			750 ug/Kg	10/08/2007
1,1,1-Trichloroethane	LCS 717	96	(77-130)			750 ug/Kg	10/08/2007
1,1-Dichloroethane	LCS 740	99	(80-120)			750 ug/Kg	10/08/2007
2-Chlorotoluene	LCS 760	101	(80-123)			750 ug/Kg	10/08/2007
Trichloroethene	LCS 733	98	(80-122)			750 ug/Kg	10/08/2007
trans-1,2-Dichloroethene	LCS 727	97	(80-126)			750 ug/Kg	10/08/2007
1,2-Dichlorobenzene	LCS 745	99	(80-120)			750 ug/Kg	10/08/2007
2,2-Dichloropropane	LCS 724	97	(80-134)			750 ug/Kg	10/08/2007
Hexachlorobutadiene	LCS 721	96	(78-133)			750 ug/Kg	10/08/2007
Isopropylbenzene (Cumene)	LCS 758	101	(80-120)			750 ug/Kg	10/08/2007
2-Hexanone	LCS 2030	90	(63-125)			2250 ug/Kg	10/08/2007
1,2-Dichloropropane	LCS 756	101	(80-120)			750 ug/Kg	10/08/2007
1,1-Dichloropropene	LCS 745	99	(80-124)			750 ug/Kg	10/08/2007
1,1,2-Trichloroethane	LCS 738	98	(82-120)			750 ug/Kg	10/08/2007



SGS Ref.# 797354 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method SW5035A
Date 10/08/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,3-Dichlorobenzene	LCS	732	98	(80-120)		750 ug/Kg	10/08/2007
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1,2,3-Trichlorobenzene	LCS	761	101	(77-126)		750 ug/Kg	10/08/2007
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Methyl-t-butyl ether	LCS	1030	92	(78-123)		1130 ug/Kg	10/08/2007
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Surrogates

1,2-Dichloroethane-D4 <surr>	LCS		99	(80-137)			10/08/2007
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Toluene-d8 <surr>	LCS		106	(80-122)			10/08/2007
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4-Bromofluorobenzene <surr>	LCS		105	(42-147)			10/08/2007
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Batch VMS9437
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 797414 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Soil/Solid

Printed Date/Time 10/16/2007 12:37
Prep Batch MXX19617
Method SW3050B
Date 10/09/2007

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Metals by ICP/MS</u>							
Arsenic	LCS 45.8	92	(80-120)			50 mg/Kg	10/10/2007
Barium	LCS 49.3	99	(80-120)			50 mg/Kg	10/10/2007
Cadmium	LCS 47.7	95	(80-120)			50 mg/Kg	10/10/2007
Chromium	LCS 53.2	106	(80-120)			50 mg/Kg	10/10/2007
Lead	LCS 49.2	98	(80-120)			50 mg/Kg	10/10/2007
Selenium	LCS 47.5	95	(80-120)			50 mg/Kg	10/10/2007
Silver	LCS 4.59	92	(80-120)			5 mg/Kg	10/10/2007

Batch MMS5133
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 797692 Lab Control Sample

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:
1075115003, 1075115004, 1075115005

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797692 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep VXX17499
Batch SW5030B
Method
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 35.5	118	(80-120)			30 ug/L	10/09/2007
Toluene	LCS 30.9	103	(77-120)			30 ug/L	10/09/2007
Ethylbenzene	LCS 34.6	115	(80-120)			30 ug/L	10/09/2007
n-Butylbenzene	LCS 33.6	112	(80-124)			30 ug/L	10/09/2007
Carbon disulfide	LCS 51.0	113	(72-123)			45 ug/L	10/09/2007
1,4-Dichlorobenzene	LCS 36.0	120	(80-120)			30 ug/L	10/09/2007
1,2-Dichloroethane	LCS 34.3	114	(80-129)			30 ug/L	10/09/2007
1,3,5-Trimethylbenzene	LCS 34.2	114	(80-128)			30 ug/L	10/09/2007
4-Chlorotoluene	LCS 36.8	123	(79-128)			30 ug/L	10/09/2007
Chlorobenzene	LCS 33.0	110	(80-120)			30 ug/L	10/09/2007
4-Methyl-2-pentanone (MIBK)	LCS 90.1	100	(69-134)			90 ug/L	10/09/2007
cis-1,2-Dichloroethene	LCS 33.7	112	(80-125)			30 ug/L	10/09/2007
4-Isopropyltoluene	LCS 33.8	113	(80-125)			30 ug/L	10/09/2007
cis-1,3-Dichloropropene	LCS 32.9	110	(80-120)			30 ug/L	10/09/2007
n-Propylbenzene	LCS 35.3	118	(80-129)			30 ug/L	10/09/2007
Styrene	LCS 33.6	112	(80-120)			30 ug/L	10/09/2007
Dibromomethane	LCS 32.2	107	(80-120)			30 ug/L	10/09/2007
trans-1,3-Dichloropropene	LCS 31.0	103	(80-124)			30 ug/L	10/09/2007
1,2,4-Trichlorobenzene	LCS 31.8	106	(80-120)			30 ug/L	10/09/2007
1,1,2,2-Tetrachloroethane	LCS 29.6	99	(76-123)			30 ug/L	10/09/2007
1,2-Dibromo-3-chloropropane	LCS 28.9	96	(73-130)			30 ug/L	10/09/2007



SGS Ref.# 797692 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep VXX17499
Batch
Method SW5030B
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Methyl-t-butyl ether	LCS 49.4	110	(80-120)			45 ug/L	10/09/2007
Tetrachloroethene	LCS 32.7	109	(79-122)			30 ug/L	10/09/2007
Dibromochloromethane	LCS 30.3	101	(80-120)			30 ug/L	10/09/2007
1,3-Dichloropropane	LCS 31.7	106	(80-121)			30 ug/L	10/09/2007
1,2-Dibromoethane	LCS 28.8	96	(80-120)			30 ug/L	10/09/2007
Carbon tetrachloride	LCS 32.1	107	(80-126)			30 ug/L	10/09/2007
1,1,1,2-Tetrachloroethane	LCS 31.4	105	(80-120)			30 ug/L	10/09/2007
Chloroform	LCS 34.8	116	(80-124)			30 ug/L	10/09/2007
Bromobenzene	LCS 32.6	109	(80-120)			30 ug/L	10/09/2007
Chloromethane	LCS 32.9	110	(67-125)			30 ug/L	10/09/2007
1,2,3-Trichloropropane	LCS 27.3	91	(80-120)			30 ug/L	10/09/2007
Bromomethane	LCS 37.4	125	(30-140)			30 ug/L	10/09/2007
Bromochloromethane	LCS 31.1	104	(77-129)			30 ug/L	10/09/2007
Vinyl chloride	LCS 33.2	111	(72-145)			30 ug/L	10/09/2007
Dichlorodifluoromethane	LCS 28.3	94	(62-153)			30 ug/L	10/09/2007
Chloroethane	LCS 32.3	108	(67-133)			30 ug/L	10/09/2007
sec-Butylbenzene	LCS 33.6	112	(80-120)			30 ug/L	10/09/2007
Bromodichloromethane	LCS 34.3	114	(80-120)			30 ug/L	10/09/2007
1,1-Dichloroethene	LCS 35.8	119	(76-130)			30 ug/L	10/09/2007
2-Butanone (MEK)	LCS 98.9	110	(66-136)			90 ug/L	10/09/2007



SGS Ref.# 797692 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 10/16/2007 12:37
Prep VXX17499
Batch
Method SW5030B
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Methylene chloride	LCS 33.4	111	(63-131)			30 ug/L	10/09/2007
Trichlorofluoromethane	LCS 32.9	110	(68-145)			30 ug/L	10/09/2007
P & M -Xylene	LCS 67.7	113	(80-120)			60 ug/L	10/09/2007
Naphthalene	LCS 31.7	106	(75-120)			30 ug/L	10/09/2007
o-Xylene	LCS 32.1	107	(80-120)			30 ug/L	10/09/2007
Bromoform	LCS 28.9	96	(80-120)			30 ug/L	10/09/2007
Xylenes (total)	LCS 99.8	111	(80-120)			90 ug/L	10/09/2007
1,2,4-Trimethylbenzene	LCS 33.6	112	(80-125)			30 ug/L	10/09/2007
tert-Butylbenzene	LCS 31.8	106	(80-122)			30 ug/L	10/09/2007
1,1,1-Trichloroethane	LCS 31.5	105	(80-122)			30 ug/L	10/09/2007
1,1-Dichloroethane	LCS 32.6	109	(80-120)			30 ug/L	10/09/2007
2-Chlorotoluene	LCS 33.4	111	(80-125)			30 ug/L	10/09/2007
Trichloroethene	LCS 34.4	115	(80-125)			30 ug/L	10/09/2007
trans-1,2-Dichloroethene	LCS 32.0	107	(79-132)			30 ug/L	10/09/2007
1,2-Dichlorobenzene	LCS 29.4	98	(80-120)			30 ug/L	10/09/2007
2,2-Dichloropropane	LCS 35.5	118	(80-132)			30 ug/L	10/09/2007
Hexachlorobutadiene	LCS 34.4	115	(77-125)			30 ug/L	10/09/2007
Isopropylbenzene (Cumene)	LCS 33.9	113	(80-121)			30 ug/L	10/09/2007
2-Hexanone	LCS 87.2	97	(68-130)			90 ug/L	10/09/2007
1,2-Dichloropropane	LCS 34.1	114	(80-121)			30 ug/L	10/09/2007
1,1-Dichloropropene	LCS 32.8	109	(80-122)			30 ug/L	10/09/2007



SGS Ref.# 797692 Lab Control Sample

Printed Date/Time 10/16/2007 12:37

Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3 Anc Fish Hatchery
Matrix Water (Surface, Eff., Ground)

Prep Batch VXX17499
Method SW5030B
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,1,2-Trichloroethane	LCS	29.4	98	(77-120)		30 ug/L	10/09/2007
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1,3-Dichlorobenzene	LCS	32.5	108	(80-120)		30 ug/L	10/09/2007
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1,2,3-Trichlorobenzene	LCS	31.9	106	(77-120)		30 ug/L	10/09/2007
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Surrogates

1,2-Dichloroethane-D4 <surr>	LCS		99	(73-120)			10/09/2007
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Toluene-d8 <surr>	LCS		96	(80-120)			10/09/2007
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4-Bromofluorobenzene <surr>	LCS		101	(76-120)			10/09/2007
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Batch VMS9447
Method SW8260B
Instrument HP 5890 Series II MS1 VJA



SGS Ref.# 795050 Matrix Spike
795051 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17422
Method AK101 Extraction (S)
Date 09/28/2007

Original 795049
Matrix Soil/Solid

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department									
Gasoline Range Organics	MS	ND	7.73	97	(60-120)			7.98 mg/Kg	09/28/2007
	MSD		8.12	102		5	(< 20)	7.98 mg/Kg	09/28/2007
Surrogates									
4-Bromofluorobenzene <surr>	MS		0.670	76	(50-150)				09/28/2007
	MSD		0.655	74		2			09/28/2007
Batch	VFC8648								
Method	AK101								
Instrument	HP 5890 Series II PID+FID VDA								



SGS Ref.# 795885 Matrix Spike
795886 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch MXX19595
Method Digestion Mercury (S)
Date 10/02/2007

Original 1075115001
Matrix Soil/Solid

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals Department

Mercury	MS	59.5	426	98	(83-118)			375 ug/Kg	10/02/2007
	MSD		424	97		0	(< 20)	377 ug/Kg	10/02/2007

Batch MCV3732
Method SW7471A
Instrument PSA Millennium mercury AA



SGS Ref.# 796436 Matrix Spike
796437 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch XXX18675
Method Sonication Extraction Soil SW8
Date 10/04/2007

Original 1075115001
Matrix Soil/Solid

QC results affect the following production samples:
1075115001, 1075115002, 1075115006, 1075115007

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	246	98	(47-120)			252 ug/Kg	10/07/2007
	MSD		250	99		1	(< 30)	252 ug/Kg	10/07/2007
Aroclor-1260	MS	ND	287	114	(60-130)			252 ug/Kg	10/07/2007
	MSD		290	114		0	(< 30)	252 ug/Kg	10/07/2007
Surrogates									
Decachlorobiphenyl <surr>	MS		285	113	(60-125)				10/07/2007
	MSD		286	113		0			10/07/2007

Batch XGC5972
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 797356 Matrix Spike
797357 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17483
Method Vol. Extraction SW8260 Field I
Date 10/08/2007

Original 797355
Matrix Soil/Solid

QC results affect the following production samples:

1075115001, 1075115002, 1075115006, 1075115007, 1075115008

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.#	797356	Matrix Spike	Printed Date/Time	10/16/2007 12:37
	797357	Matrix Spike Duplicate	Prep	VXX17483
			Batch	Vol. Extraction SW8260 Field I
			Method	10/08/2007
Original	797355		Date	
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	1290	97	(80-125)			1330 ug/Kg	10/08/2007
	MSD		1290	97		0	(< 20)	1330 ug/Kg	10/08/2007
Toluene	MS	ND	1310	99	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
Ethylbenzene	MS	ND	1340	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1320	99		1	(< 20)	1330 ug/Kg	10/08/2007
n-Butylbenzene	MS	ND	1350	102	(80-123)			1330 ug/Kg	10/08/2007
	MSD		1340	101		1	(< 20)	1330 ug/Kg	10/08/2007
Carbon disulfide	MS	ND	1840	92	(61-135)			1990 ug/Kg	10/08/2007
	MSD		1820	92		1	(< 20)	1990 ug/Kg	10/08/2007
1,4-Dichlorobenzene	MS	ND	1320	99	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1320	99		0	(< 20)	1330 ug/Kg	10/08/2007
1,2-Dichloroethane	MS	ND	1270	95	(80-133)			1330 ug/Kg	10/08/2007
	MSD		1240	94		2	(< 20)	1330 ug/Kg	10/08/2007
1,3,5-Trimethylbenzene	MS	ND	1330	100	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1340	101		1	(< 20)	1330 ug/Kg	10/08/2007
4-Chlorotoluene	MS	ND	1390	105	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1370	103		2	(< 20)	1330 ug/Kg	10/08/2007
Chlorobenzene	MS	ND	1350	101	(80-122)			1330 ug/Kg	10/08/2007
	MSD		1340	101		1	(< 20)	1330 ug/Kg	10/08/2007
4-Methyl-2-pentanone (MIBK)	MS	ND	3670	92	(76-120)			3990 ug/Kg	10/08/2007
	MSD		3680	92		0	(< 20)	3990 ug/Kg	10/08/2007
cis-1,2-Dichloroethene	MS	ND	1300	98	(80-124)			1330 ug/Kg	10/08/2007
	MSD		1300	98		0	(< 20)	1330 ug/Kg	10/08/2007
4-Isopropyltoluene	MS	ND	1350	102	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1360	102		0	(< 20)	1330 ug/Kg	10/08/2007
cis-1,3-Dichloropropene	MS	ND	1300	98	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1310	99		1	(< 20)	1330 ug/Kg	10/08/2007
n-Propylbenzene	MS	ND	1380	104	(80-122)			1330 ug/Kg	10/08/2007
	MSD		1370	103		0	(< 20)	1330 ug/Kg	10/08/2007
Styrene	MS	ND	1360	102	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1330	100		2	(< 20)	1330 ug/Kg	10/08/2007
Dibromomethane	MS	ND	1290	97	(79-126)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
trans-1,3-Dichloropropene	MS	ND	1320	99	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
1,2,4-Trichlorobenzene	MS	ND	1300	98	(80-122)			1330 ug/Kg	10/08/2007
	MSD		1330	100		2	(< 20)	1330 ug/Kg	10/08/2007
1,1,2,2-Tetrachloroethane	MS	ND	1360	102	(79-120)			1330 ug/Kg	10/08/2007
	MSD		1340	101		2	(< 20)	1330 ug/Kg	10/08/2007



SGS Ref.#	797356	Matrix Spike	Printed Date/Time	10/16/2007 12:37
	797357	Matrix Spike Duplicate	Prep	VXX17483
			Batch	Vol. Extraction SW8260 Field I
			Method	10/08/2007
Original	797355		Date	
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	MS	ND	1320	99	(64-128)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
Tetrachloroethene	MS	ND	1310	98	(78-124)			1330 ug/Kg	10/08/2007
	MSD		1300	98		0	(< 20)	1330 ug/Kg	10/08/2007
Dibromochloromethane	MS	ND	1290	97	(80-122)			1330 ug/Kg	10/08/2007
	MSD		1270	95		2	(< 20)	1330 ug/Kg	10/08/2007
1,3-Dichloropropane	MS	ND	1340	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1320	99		2	(< 20)	1330 ug/Kg	10/08/2007
1,2-Dibromoethane	MS	ND	1310	98	(80-121)			1330 ug/Kg	10/08/2007
	MSD		1290	97		1	(< 20)	1330 ug/Kg	10/08/2007
Carbon tetrachloride	MS	ND	1290	97	(73-133)			1330 ug/Kg	10/08/2007
	MSD		1280	96		1	(< 20)	1330 ug/Kg	10/08/2007
1,1,1,2-Tetrachloroethane	MS	ND	1340	101	(78-125)			1330 ug/Kg	10/08/2007
	MSD		1320	100		1	(< 20)	1330 ug/Kg	10/08/2007
Chloroform	MS	ND	1300	98	(80-124)			1330 ug/Kg	10/08/2007
	MSD		1280	96		2	(< 20)	1330 ug/Kg	10/08/2007
Bromobenzene	MS	ND	1360	103	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1350	102		1	(< 20)	1330 ug/Kg	10/08/2007
Chloromethane	MS	ND	1200	90	(68-129)			1330 ug/Kg	10/08/2007
	MSD		1220	92		2	(< 20)	1330 ug/Kg	10/08/2007
1,2,3-Trichloropropane	MS	ND	1320	100	(75-121)			1330 ug/Kg	10/08/2007
	MSD		1340	101		2	(< 20)	1330 ug/Kg	10/08/2007
Bromomethane	MS	ND	1170	88	(52-140)			1330 ug/Kg	10/08/2007
	MSD		1240	93		5	(< 20)	1330 ug/Kg	10/08/2007
Bromochloromethane	MS	ND	1330	100	(78-125)			1330 ug/Kg	10/08/2007
	MSD		1330	100		0	(< 20)	1330 ug/Kg	10/08/2007
Vinyl chloride	MS	ND	1270	96	(78-125)			1330 ug/Kg	10/08/2007
	MSD		1290	97		1	(< 20)	1330 ug/Kg	10/08/2007
Dichlorodifluoromethane	MS	ND	1250	94	(67-135)			1330 ug/Kg	10/08/2007
	MSD		1290	97		3	(< 20)	1330 ug/Kg	10/08/2007
Chloroethane	MS	ND	1630	123	(53-141)			1330 ug/Kg	10/08/2007
	MSD		1560	117		5	(< 20)	1330 ug/Kg	10/08/2007
sec-Butylbenzene	MS	ND	1380	104	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1360	102		2	(< 20)	1330 ug/Kg	10/08/2007
Bromodichloromethane	MS	ND	1310	98	(80-126)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
1,1-Dichloroethene	MS	ND	1290	97	(73-126)			1330 ug/Kg	10/08/2007
	MSD		1260	95		3	(< 20)	1330 ug/Kg	10/08/2007
2-Butanone (MEK)	MS	ND	3770	94	(70-124)			3990 ug/Kg	10/08/2007
	MSD		3810	96		1	(< 20)	3990 ug/Kg	10/08/2007



SGS Ref.#	797356	Matrix Spike	Printed Date/Time	10/16/2007 12:37
	797357	Matrix Spike Duplicate	Prep	VXX17483
			Batch	Vol. Extraction SW8260 Field I
			Method	10/08/2007
			Date	
Original	797355			
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Methylene chloride	MS	ND	1300	98	(76-124)			1330 ug/Kg	10/08/2007
	MSD		1300	98		0	(< 20)	1330 ug/Kg	10/08/2007
Trichlorofluoromethane	MS	ND	1130	85	(58-172)			1330 ug/Kg	10/08/2007
	MSD		1160	87		3	(< 20)	1330 ug/Kg	10/08/2007
P & M -Xylene	MS	ND	2630	99	(80-120)			2660 ug/Kg	10/08/2007
	MSD		2630	99		0	(< 20)	2660 ug/Kg	10/08/2007
Naphthalene	MS	ND	1260	95	(71-121)			1330 ug/Kg	10/08/2007
	MSD		1320	99		5	(< 20)	1330 ug/Kg	10/08/2007
o-Xylene	MS	ND	1340	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1340	101		1	(< 20)	1330 ug/Kg	10/08/2007
Bromoform	MS	ND	1340	101	(74-129)			1330 ug/Kg	10/08/2007
	MSD		1300	98		3	(< 20)	1330 ug/Kg	10/08/2007
Xylenes (total)	MS	ND	3980	100	(80-120)			3990 ug/Kg	10/08/2007
	MSD		3970	99		0		3990 ug/Kg	10/08/2007
1,2,4-Trimethylbenzene	MS	ND	1340	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1330	100		1	(< 20)	1330 ug/Kg	10/08/2007
tert-Butylbenzene	MS	ND	1350	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1350	102		0	(< 20)	1330 ug/Kg	10/08/2007
1,1,1-Trichloroethane	MS	ND	1270	96	(77-130)			1330 ug/Kg	10/08/2007
	MSD		1270	95		1	(< 20)	1330 ug/Kg	10/08/2007
1,1-Dichloroethane	MS	ND	1320	99	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1290	97		2	(< 20)	1330 ug/Kg	10/08/2007
2-Chlorotoluene	MS	ND	1360	102	(80-123)			1330 ug/Kg	10/08/2007
	MSD		1340	101		1	(< 20)	1330 ug/Kg	10/08/2007
Trichloroethene	MS	ND	1300	98	(80-122)			1330 ug/Kg	10/08/2007
	MSD		1310	98		1	(< 20)	1330 ug/Kg	10/08/2007
trans-1,2-Dichloroethene	MS	ND	1300	98	(80-126)			1330 ug/Kg	10/08/2007
	MSD		1290	97		0	(< 20)	1330 ug/Kg	10/08/2007
1,2-Dichlorobenzene	MS	ND	1340	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1340	101		0	(< 20)	1330 ug/Kg	10/08/2007
2,2-Dichloropropane	MS	ND	1280	96	(80-134)			1330 ug/Kg	10/08/2007
	MSD		1260	95		2	(< 20)	1330 ug/Kg	10/08/2007
Hexachlorobutadiene	MS	ND	1200	91	(78-133)			1330 ug/Kg	10/08/2007
	MSD		1170	88		3	(< 20)	1330 ug/Kg	10/08/2007
Isopropylbenzene (Cumene)	MS	ND	1350	101	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1330	100		1	(< 20)	1330 ug/Kg	10/08/2007
2-Hexanone	MS	ND	3660	92	(63-125)			3990 ug/Kg	10/08/2007
	MSD		3600	90		2	(< 20)	3990 ug/Kg	10/08/2007
1,2-Dichloropropane	MS	ND	1360	102	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1340	101		2	(< 20)	1330 ug/Kg	10/08/2007



SGS Ref.# 797356 Matrix Spike **Printed Date/Time** 10/16/2007 12:37
 797357 Matrix Spike Duplicate **Prep Batch** VXX17483
Method Vol. Extraction SW8260 Field I
Date 10/08/2007
Original 797355
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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Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloropropene	MS	ND	1320	99	(80-124)			1330 ug/Kg	10/08/2007
	MSD		1320	99		0	(< 20)	1330 ug/Kg	10/08/2007
1,1,2-Trichloroethane	MS	ND	1320	99	(82-120)			1330 ug/Kg	10/08/2007
	MSD		1320	99		0	(< 20)	1330 ug/Kg	10/08/2007
1,3-Dichlorobenzene	MS	ND	1320	99	(80-120)			1330 ug/Kg	10/08/2007
	MSD		1300	98		1	(< 20)	1330 ug/Kg	10/08/2007
1,2,3-Trichlorobenzene	MS	ND	1260	95	(77-126)			1330 ug/Kg	10/08/2007
	MSD		1320	100		5	(< 20)	1330 ug/Kg	10/08/2007
Methyl-t-butyl ether	MS	ND	1870	94	(78-123)			1990 ug/Kg	10/08/2007
	MSD		1850	93		1	(< 20)	1990 ug/Kg	10/08/2007

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		1320	100	(80-137)				10/08/2007
	MSD		1320	100		0			10/08/2007
Toluene-d8 <surr>	MS		1430	108	(80-122)				10/08/2007
	MSD		1420	107		1			10/08/2007
4-Bromofluorobenzene <surr>	MS		3370	95	(42-147)				10/08/2007
	MSD		3450	97		2			10/08/2007

Batch VMS9437
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.#	797415	Matrix Spike	Printed Date/Time	10/16/2007 12:37
	797416	Matrix Spike Duplicate	Prep	MXX19617
			Batch	Soils/Solids Digest for Metals b
			Method	10/09/2007
			Date	
Original	1075242001			
Matrix	Soil/Solid			

QC results affect the following production samples:
 1075115001, 1075115002, 1075115006, 1075115007

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS									
Arsenic	MS	18.1	67	92	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		65.7	91		2	(< 20)	52.4 mg/Kg	10/10/2007
Barium	MS	12.1	64.5	98	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		64.1	99		1	(< 20)	52.4 mg/Kg	10/10/2007
Cadmium	MS	ND	49.1	92	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		49.8	95		1	(< 20)	52.4 mg/Kg	10/10/2007
Chromium	MS	80.6	134	100	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		133	99		1	(< 20)	52.4 mg/Kg	10/10/2007
Lead	MS	3.15	55.9	99	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		56	101		0	(< 20)	52.4 mg/Kg	10/10/2007
Selenium	MS	1.03	48.8	90	(80-120)			53.3 mg/Kg	10/10/2007
	MSD		49.1	92		1	(< 20)	52.4 mg/Kg	10/10/2007
Silver	MS	0.161	4.9	89	(80-120)			5.33 mg/Kg	10/10/2007
	MSD		4.88	90		0	(< 20)	5.24 mg/Kg	10/10/2007

Batch MMS5133
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 797693 Matrix Spike
797694 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method Volatiles Extraction 8240/8260
Date 10/09/2007

Original 797690
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:

1075115003, 1075115004, 1075115005

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797693 Matrix Spike **Printed Date/Time** 10/16/2007 12:37
 797694 Matrix Spike Duplicate **Prep Batch** VXX17499
Method Volatiles Extraction 8240/8260
Date 10/09/2007

Original 797690
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	33.3	111	(80-120)			30	ug/L 10/09/2007
	MSD		33.5	112		0	(< 20)	30	ug/L 10/09/2007
Toluene	MS	ND	29.2	97	(77-120)			30	ug/L 10/09/2007
	MSD		28.6	95		2	(< 20)	30	ug/L 10/09/2007
Ethylbenzene	MS	ND	32.3	108	(80-120)			30	ug/L 10/09/2007
	MSD		31.9	106		1	(< 20)	30	ug/L 10/09/2007
n-Butylbenzene	MS	ND	29.3	98	(80-124)			30	ug/L 10/09/2007
	MSD		29.3	98		0	(< 20)	30	ug/L 10/09/2007
Carbon disulfide	MS	ND	48.5	108	(72-123)			45	ug/L 10/09/2007
	MSD		48.2	107		1	(< 20)	45	ug/L 10/09/2007
1,4-Dichlorobenzene	MS	ND	32.5	108	(80-120)			30	ug/L 10/09/2007
	MSD		32.7	109		1	(< 20)	30	ug/L 10/09/2007
1,2-Dichloroethane	MS	ND	32.4	108	(80-129)			30	ug/L 10/09/2007
	MSD		32.1	107		1	(< 20)	30	ug/L 10/09/2007
1,3,5-Trimethylbenzene	MS	ND	30.5	102	(80-128)			30	ug/L 10/09/2007
	MSD		30.7	102		1	(< 20)	30	ug/L 10/09/2007
4-Chlorotoluene	MS	ND	33.1	110	(79-128)			30	ug/L 10/09/2007
	MSD		33.1	110		0	(< 20)	30	ug/L 10/09/2007
Chlorobenzene	MS	ND	30.6	102	(80-120)			30	ug/L 10/09/2007
	MSD		30.4	101		1	(< 20)	30	ug/L 10/09/2007
4-Methyl-2-pentanone (MIBK)	MS	ND	84.4	94	(69-134)			90	ug/L 10/09/2007
	MSD		84	93		0	(< 20)	90	ug/L 10/09/2007
cis-1,2-Dichloroethene	MS	ND	30.8	103	(80-125)			30	ug/L 10/09/2007
	MSD		30.7	102		0	(< 20)	30	ug/L 10/09/2007
4-Isopropyltoluene	MS	ND	29.8	99	(80-125)			30	ug/L 10/09/2007
	MSD		30.1	100		1	(< 20)	30	ug/L 10/09/2007
cis-1,3-Dichloropropene	MS	ND	30	100	(80-120)			30	ug/L 10/09/2007
	MSD		29.4	98		2	(< 20)	30	ug/L 10/09/2007
n-Propylbenzene	MS	ND	31.7	106	(80-129)			30	ug/L 10/09/2007
	MSD		31.7	106		0	(< 20)	30	ug/L 10/09/2007
Styrene	MS	ND	30.6	102	(80-120)			30	ug/L 10/09/2007
	MSD		30.4	101		1	(< 20)	30	ug/L 10/09/2007
Dibromomethane	MS	ND	29.7	99	(80-120)			30	ug/L 10/09/2007
	MSD		29.3	98		2	(< 20)	30	ug/L 10/09/2007
trans-1,3-Dichloropropene	MS	ND	30.3	101	(80-124)			30	ug/L 10/09/2007
	MSD		29.6	99		3	(< 20)	30	ug/L 10/09/2007
1,2,4-Trichlorobenzene	MS	1.42	29	92	(80-120)			30	ug/L 10/09/2007
	MSD		29.2	93		1	(< 20)	30	ug/L 10/09/2007
1,1,2,2-Tetrachloroethane	MS	ND	28.3	94	(76-123)			30	ug/L 10/09/2007
	MSD		28.6	95		1	(< 20)	30	ug/L 10/09/2007



SGS Ref.# 797693 Matrix Spike **Printed Date/Time** 10/16/2007 12:37
 797694 Matrix Spike Duplicate **Prep Batch** VXX17499
Method Volatiles Extraction 8240/8260
Date 10/09/2007

Original 797690
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	MS	ND	27.2	91	(73-130)			30	ug/L 10/09/2007
	MSD		27.3	91		0	(< 20)	30	ug/L 10/09/2007
Methyl-t-butyl ether	MS	ND	47.8	106	(80-120)			45	ug/L 10/09/2007
	MSD		47.7	106		0	(< 20)	45	ug/L 10/09/2007
Tetrachloroethene	MS	ND	30.5	102	(79-122)			30	ug/L 10/09/2007
	MSD		29.8	99		3	(< 20)	30	ug/L 10/09/2007
Dibromochloromethane	MS	ND	29	97	(80-120)			30	ug/L 10/09/2007
	MSD		28.6	95		2	(< 20)	30	ug/L 10/09/2007
1,3-Dichloropropane	MS	ND	29.7	99	(80-121)			30	ug/L 10/09/2007
	MSD		29.6	99		1	(< 20)	30	ug/L 10/09/2007
1,2-Dibromoethane	MS	ND	28.3	95	(80-120)			30	ug/L 10/09/2007
	MSD		27.6	92		3	(< 20)	30	ug/L 10/09/2007
Carbon tetrachloride	MS	ND	30	100	(80-126)			30	ug/L 10/09/2007
	MSD		28.9	96		4	(< 20)	30	ug/L 10/09/2007
1,1,1,2-Tetrachloroethane	MS	ND	29.5	99	(80-120)			30	ug/L 10/09/2007
	MSD		28.3	95		4	(< 20)	30	ug/L 10/09/2007
Chloroform	MS	ND	31.9	106	(80-124)			30	ug/L 10/09/2007
	MSD		31.4	105		2	(< 20)	30	ug/L 10/09/2007
Bromobenzene	MS	ND	29.4	98	(80-120)			30	ug/L 10/09/2007
	MSD		29.6	99		1	(< 20)	30	ug/L 10/09/2007
Chloromethane	MS	ND	37.3	124	(67-125)			30	ug/L 10/09/2007
	MSD		38	127*		2	(< 20)	30	ug/L 10/09/2007
1,2,3-Trichloropropane	MS	ND	26.8	89	(80-120)			30	ug/L 10/09/2007
	MSD		26.6	89		1	(< 20)	30	ug/L 10/09/2007
Bromomethane	MS	ND	34.3	114	(30-140)			30	ug/L 10/09/2007
	MSD		34.8	116		2	(< 20)	30	ug/L 10/09/2007
Bromochloromethane	MS	ND	29.3	98	(77-129)			30	ug/L 10/09/2007
	MSD		28.9	97		1	(< 20)	30	ug/L 10/09/2007
Vinyl chloride	MS	ND	34.9	116	(72-145)			30	ug/L 10/09/2007
	MSD		34.9	116		0	(< 20)	30	ug/L 10/09/2007
Dichlorodifluoromethane	MS	ND	35.2	117	(62-153)			30	ug/L 10/09/2007
	MSD		33.5	112		5	(< 20)	30	ug/L 10/09/2007
Chloroethane	MS	ND	33.8	113	(67-133)			30	ug/L 10/09/2007
	MSD		32.9	110		3	(< 20)	30	ug/L 10/09/2007
sec-Butylbenzene	MS	ND	31.8	106	(80-120)			30	ug/L 10/09/2007
	MSD		32	107		1	(< 20)	30	ug/L 10/09/2007
Bromodichloromethane	MS	ND	30.5	102	(80-120)			30	ug/L 10/09/2007
	MSD		29.9	100		2	(< 20)	30	ug/L 10/09/2007
1,1-Dichloroethene	MS	ND	35.5	118	(76-130)			30	ug/L 10/09/2007
	MSD		35.5	118		0	(< 20)	30	ug/L 10/09/2007



SGS Ref.# 797693 Matrix Spike
797694 Matrix Spike Duplicate

Printed Date/Time 10/16/2007 12:37
Prep Batch VXX17499
Method Volatiles Extraction 8240/8260
Date 10/09/2007

Original 797690
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
2-Butanone (MEK)	MS	ND	85.8	95	(66-136)			90	ug/L 10/09/2007
	MSD		84	93		2	(< 20)	90	ug/L 10/09/2007
Methylene chloride	MS	ND	31.8	106	(63-131)			30	ug/L 10/09/2007
	MSD		31.7	106		0	(< 20)	30	ug/L 10/09/2007
Trichlorofluoromethane	MS	ND	30.8	103	(68-145)			30	ug/L 10/09/2007
	MSD		30.1	100		2	(< 20)	30	ug/L 10/09/2007
P & M -Xylene	MS	ND	63.2	105	(80-120)			60	ug/L 10/09/2007
	MSD		62.5	104		1	(< 20)	60	ug/L 10/09/2007
Naphthalene	MS	3.24	31	92	(75-120)			30	ug/L 10/09/2007
	MSD		31.2	93		1	(< 20)	30	ug/L 10/09/2007
o-Xylene	MS	ND	30	100	(80-120)			30	ug/L 10/09/2007
	MSD		29.5	98		2	(< 20)	30	ug/L 10/09/2007
Bromoform	MS	ND	29.3	98	(80-120)			30	ug/L 10/09/2007
	MSD		28.1	94		4	(< 20)	30	ug/L 10/09/2007
Xylenes (total)	MS	ND	93.2	104	(80-120)			90	ug/L 10/09/2007
	MSD		92	102		1	(< 20)	90	ug/L 10/09/2007
1,2,4-Trimethylbenzene	MS	ND	30.3	101	(80-125)			30	ug/L 10/09/2007
	MSD		30.8	103		1	(< 20)	30	ug/L 10/09/2007
tert-Butylbenzene	MS	ND	28.8	96	(80-122)			30	ug/L 10/09/2007
	MSD		29.3	98		2	(< 20)	30	ug/L 10/09/2007
1,1,1-Trichloroethane	MS	ND	29.6	99	(80-122)			30	ug/L 10/09/2007
	MSD		29.4	98		1	(< 20)	30	ug/L 10/09/2007
1,1-Dichloroethane	MS	ND	31.1	104	(80-120)			30	ug/L 10/09/2007
	MSD		30.8	103		1	(< 20)	30	ug/L 10/09/2007
2-Chlorotoluene	MS	ND	30.2	101	(80-125)			30	ug/L 10/09/2007
	MSD		30.5	102		1	(< 20)	30	ug/L 10/09/2007
Trichloroethene	MS	ND	32.2	107	(80-125)			30	ug/L 10/09/2007
	MSD		31.7	106		2	(< 20)	30	ug/L 10/09/2007
trans-1,2-Dichloroethene	MS	ND	30.6	102	(79-132)			30	ug/L 10/09/2007
	MSD		29.9	100		2	(< 20)	30	ug/L 10/09/2007
1,2-Dichlorobenzene	MS	ND	26.3	88	(80-120)			30	ug/L 10/09/2007
	MSD		26.4	88		1	(< 20)	30	ug/L 10/09/2007
2,2-Dichloropropane	MS	ND	33.7	112	(80-132)			30	ug/L 10/09/2007
	MSD		32.9	110		3	(< 20)	30	ug/L 10/09/2007
Hexachlorobutadiene	MS	ND	28.5	95	(77-125)			30	ug/L 10/09/2007
	MSD		28.2	94		1	(< 20)	30	ug/L 10/09/2007
Isopropylbenzene (Cumene)	MS	ND	31	103	(80-121)			30	ug/L 10/09/2007
	MSD		30.4	101		2	(< 20)	30	ug/L 10/09/2007
2-Hexanone	MS	ND	77.8	87	(68-130)			90	ug/L 10/09/2007
	MSD		76.2	85		2	(< 20)	90	ug/L 10/09/2007



SGS Ref.# 797693 Matrix Spike **Printed Date/Time** 10/16/2007 12:37
 797694 Matrix Spike Duplicate **Prep Batch** VXX17499
Method Volatiles Extraction 8240/8260
Date 10/09/2007

Original 797690
Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,2-Dichloropropane	MS	ND	32.5	108	(80-121)			30	ug/L 10/09/2007
	MSD		31.9	106		2	(< 20)	30	ug/L 10/09/2007
1,1-Dichloropropene	MS	ND	31.2	104	(80-122)			30	ug/L 10/09/2007
	MSD		30.4	101		3	(< 20)	30	ug/L 10/09/2007
1,1,2-Trichloroethane	MS	ND	27.8	93	(77-120)			30	ug/L 10/09/2007
	MSD		27.5	92		1	(< 20)	30	ug/L 10/09/2007
1,3-Dichlorobenzene	MS	ND	29.5	99	(80-120)			30	ug/L 10/09/2007
	MSD		29.5	98		0	(< 20)	30	ug/L 10/09/2007
1,2,3-Trichlorobenzene	MS	1.73	29.2	91	(77-120)			30	ug/L 10/09/2007
	MSD		29.4	92		1	(< 20)	30	ug/L 10/09/2007

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		30	100	(73-120)				10/09/2007
	MSD		29.2	97		3			10/09/2007
Toluene-d8 <surr>	MS		29.3	98	(80-120)				10/09/2007
	MSD		28.8	96		2			10/09/2007
4-Bromofluorobenzene <surr>	MS		29.5	98	(76-120)				10/09/2007
	MSD		29.8	99		1			10/09/2007

Batch VMS9447
Method SW8260B
Instrument HP 5890 Series II MS1 VJA

1075115



SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

CHAIN-OF-CUSTODY RECORD

Laboratory SGS
Attn: Barbara Hegar

400 N. 34th Street, Suite 100 Seattle, WA 98103 (206) 632-8020
2043 Westport Center Drive St. Louis, MO 63146-3564 (314) 699-9660
303 Wellsian Way Richland, WA 99352 (509) 946-6309

2355 Hill Road Fairbanks, AK 99709 (907) 479-0600
5430 Fairbanks Street, Suite 3 Anchorage, AK 99518 (907) 561-2120

2255 S.W. Canyon Road Portland, OR 97201-2498 (503) 223-6147
1200 17th Street, Suite 1024 Denver, Co 80202 (303) 825-3800

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

Sample Identity	Lab No.	Time	Date Sampled	Comp.		GR0 MK101	VOC 8260	PCRA Metals Pb, Cu, Cd, Cr, Hg, Ni, Zn	PCB 8082	MK102 MK103 DRO/RO	Total Number of Containers	Remarks/Matrix
				Grab	NO							
01886-3- B25 B25S5	① A-C	1455	9/25/07	X	X	X	X	X	X		3	Soil
01886-3- B25 B25S6	② ✓	15:00	9/25/07	X	X	X	X	X	X		3	Soil
01886-3-B25MW	③ A-H	17:30	9/25/07	X	X	X			X		8	Water
01886-3-B30MW	④ ✓	17:50	9/25/07	X	X	X			X		8	Water
TBW	⑤ A-C	12:00	9/25/07		NO	X					1 box	Water trip blank
01886-B20S2	⑥ A-C	10:45	9/24/07	X	X	X	X	X	X		3	Soil
01886-S11	⑦ ✓	12:00	9/24/07	X	X	X	X	X	X		3	Soil
TBS	⑧ A	10:45	9/24/07			X					1	Soil trip blank

Project Information		Sample Receipt	
Project Number: <u>32-1-01886-3</u>	Total Number of Containers	Received Good Cond./Cold <u>TB=4.5</u>	Delivery Method: <u>C=5.1</u>
Project Name: <u>Anchorage Fish Hatchery</u>	OC Seals/Intact? Y/N/NA	Delivery Method: <u>C=5.1</u>	
Contact: <u>Bill Burgess</u>	Received Good Cond./Cold	Delivery Method: <u>C=5.1</u>	
Ongoing Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Delivery Method:	Delivery Method: <u>C=5.1</u>	
Sampler: <u>Andrew Lee & Joe Thomas</u>	(attach shipping bill, if any)		

Instructions	
Requested Turnaround Time:	
Special Instructions:	<u>Level II</u>

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>11:15</u>	Signature:	Time:	Signature:	Time:
Printed Name: <u>Joe Thomas</u>	Date:	Printed Name:	Date:	Printed Name:	Date:
Company: <u>Shannon & Wilson</u>		Company:		Company:	
Received By: 1.		Received By: 2.		Received By: 3.	
Signature: <u>[Signature]</u>	Time:	Signature:	Time:	Signature: <u>[Signature]</u>	Time: <u>1615</u>
Printed Name:	Date:	Printed Name:	Date:	Printed Name: <u>Jane Johnson</u>	Date: <u>9-26-07</u>
Company:		Company:		Company: <u>SGS</u>	



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?

Due Date: 10-9-07

Received Date: 9-26-07

Received Time: 1615

Is date/time conversion necessary? N

of hours to AK Local Time: _____

Thermometer ID: 70D

Cooler ID	Temp Blank	Cooler Temp
<u>1</u>	<u>4.3</u> °C	<u>5.1</u> °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C
_____	_____ °C	_____ °C

*Temperature readings include thermometer correction factors

- 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)

Delivery method (circle all that apply): Client

- Alert Courier / UPS / FedEx / USPS /
- AA Goldstreak / NAC / ERA / PenAir / Carlie
- Lynden / SGS / Other: _____

Airbill # _____

Additional Sample Remarks: (*✓ if applicable*)

- Extra Sample Volume?
- Limited Sample Volume? 4, 5
- 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 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: * Bubbles in VOAs (4) B, C, E, F all > 1cm.

Completed by (sign): [Signature] (print): James Johnson

Login proof (check one): waived required _____ performed by: _____

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 Environmental Services - WO#1075115

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:

NA

2. Chain of Custody (COC)

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

Yes No Comments:

b. Correct analyses requested?

Yes No Comments:

3. Laboratory Sample Receipt Documentation

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

Yes No Comments:

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

Yes No Comments:

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

Yes No Comments:

Bubbles in VOAs from Sample B30MW (duplicate of Sample B25MW)

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:

No discrepancies were noted

e. Data quality or usability affected? Explain.

Comments:

Data quality/usability should not be effected considering the intended use of the data

4. Case Narrative

a. Present and understandable?

Yes No Comments:

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

Yes No Comments:

See Case Narrative for full list

c. Were all corrective actions documented?

Yes No Comments:

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

Comments:

The data quality/usability should not be affected

5. Samples Results

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

Yes No Comments:

b. All applicable holding times met?

Yes No Comments:

Sample B30MW was analyzed three minutes outside of holding time.

c. All soils reported on a dry weight basis?

Yes No

Comments:

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

Yes No

Comments:

The RRO PQL for Samples B25MW (<1.22 mg/L) and B30MW (<5.95 mg/L) is greater than the ADEC cleanup level of 1.1 mg/L RRO. The DRO PQL for Sample Sed1 is 313 mg/kg, greater than the DRO cleanup level of 250 mg/kg

e. Data quality or usability affected? Explain.

Comments:

The concentration of RRO or DRO in the samples discussed above is unknown at concentrations below the PQL. J-flagged estimated concentrations were not reported

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:

Concentrations of chromium (1.59 mg/kg) were detected in the metals method blank above the PQL of 0.400 mg/kg

iii. If above PQL, what samples are affected?

Comments:

Samples B25S5, B25S6, B20S2, and S11

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

Yes No

Comments:

Effected samples are listed at the top of the method blank page

v. Data quality or usability affected? Explain.

Comments:

The data quality/usability should not be affected because chromium was either not detected or not detected above the applicable cleanup level in the above listed samples.

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

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

Yes No

Comments:

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

Yes No

Comments:

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

Yes No

Comments:

Aroclor 1016 %R is 126 (range 47-120)

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:

Samples B25S5, B25S6, B20S2, and S11

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

Yes No

Comments:

Effected samples are listed at the top of the method blank page

vii. Data quality or usability affected? Explain.

Comments:

No, concentrations of PCBs were not detected in the above listed samples

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:

GRO surrogate for soil samples B25S5 and B25S6, and water sample B25MW %R was biased high. GRO surrogate for soil samples B20S2 and S11 %R was biased low

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

Yes No

Comments:

- iv. Data quality or usability affected? Explain.

Comments:

Surrogate recovery for Samples B25S5, B25S6, and B25MW biased high due to matrix interference. Surrogate recovery for Samples B20S2 and S11 biased low due to high moisture content in sample - the recovery adjusted for moisture content is 81% meeting the DQOs. The data should not be affected

- 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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

e. Field Duplicate

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

Yes No

Comments:

Duplicate Soil Set B25S5/B25S6 and Water Set B25MW/B30MW

ii. Submitted blind to lab?

Yes No

Comments:

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Yes No

Comments:

The precision for the reported analytes is within DQOs except for the precision for n-Butylbenzene in the soil sample set (64.88%), and the precision for GRO and DRO in the water sample set (102.63% and 57.43%) respectively.

iv. Data quality or usability affected? Explain.

Comments:

The high precision for the above referenced constituents is likely due to the non-homogeneous distribution of the subject target analytes within the soil matrix. Because most of the reported data is within the DQOs and levels for the above referenced constituents in the sample sets are within 2 to 4 times of each other or less, the data are considered acceptable for the intended use.

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

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

a. Defined and appropriate?

Yes No Comments:

Lab Specific qualifiers are defined on page following the Case Narrative

Completed by:

Jessica Busey

Title:

Environmental Scientist III

Date:

October 25, 2007

CS Report Name:

Site Characterization, Anchorage Fish Hatchery, Anchorage, Alaska

Report Date:

October 2007

Consultant Firm:

Shannon & Wilson, Inc

Laboratory Name:

SGS Environmental Services

Laboratory Report Number:

1075115

ADEC File Number:

none

ADEC RecKey Number:



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 32-1-01886-3, Anch Fish Hatch
Client: Shannon & Wilson Inc.
SGS Work Order: 1075213

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt 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.



Case Narrative

Client SHANNOT Shannon & Wilson Inc.
Workorder 1075213 32-1-01886-3, Anch Fish Hatch

Printed Date/Time 10/22/2007 11:39

Sample ID **Client Sample ID**

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

1075213001 PS 01886-3-B26SS
AK102/103 - The pattern is consistent with a lube oil.

797684 MS 1075392001(797679MS)
8260 - MS recovery for chloroethane does not meet QC criteria (biased high). See LCS for control.

797685 MSD 1075392001(797679MSD)
8260 - MSD recovery for chloroethane does not meet QC criteria (biased high). See LCS for control.
8260 - MSD/RPD for chloroethane does not meet QC criteria (biased high). See LCS for control.

797944 CCV CCV for HBN 193019 (XGC/5975)
8082- CCV surrogate recovery is outside QC goals (biased high), but within QC goals for samples.

797945 CCV CCV for HBN 193019 (XGC/5975)
8082- CCV surrogate recovery is outside QC goals (biased high), but within QC goals for samples.



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>

Bill Burgess
Shannon & Wilson Inc.
5430 Fairbanks St., Ste. 3
Anchorage, Anchorage AK 99518

Work Order:	1075213	
	32-1-01886-3, Anch Fish Hatch	Released by:
Client:	Shannon & Wilson Inc.	
Report Date:	October 22, 2007	

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 001828 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.# 1075213001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Client Sample ID 01886-3-B26SS
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/22/2007 11:39
Collected Date/Time 09/27/2007 18:12
Received Date/Time 09/28/2007 10:40
Technical Director Stephen C. Ede

Sample Remarks:

AK102/103 - The pattern is consistent with a lube oil.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	994	405	mg/Kg	AK102	B		10/09/07	10/17/07	HKG
Residual Range Organics	3770	405	mg/Kg	AK103	B		10/09/07	10/17/07	HKG
Surrogates									
5a Androstane <surr>	59		%	AK102	B	50-150	10/09/07	10/17/07	HKG
n-Triacontane-d62 <surr>	111		%	AK103	B	50-150	10/09/07	10/17/07	HKG
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1221	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1232	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1242	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1248	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1254	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Aroclor-1260	ND	73.1	ug/Kg	SW8082	B		10/08/07	10/10/07	SCL
Surrogates									
Decachlorobiphenyl <surr>	75.3		%	SW8082	B	60-125	10/08/07	10/10/07	SCL
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	ND	16.5	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Toluene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Ethylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
n-Butylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Carbon disulfide	ND	127	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,4-Dichlorobenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW



SGS Ref.# 1075213001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Client Sample ID 01886-3-B26SS
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/22/2007 11:39
Collected Date/Time 09/27/2007 18:12
Received Date/Time 09/28/2007 10:40
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,2-Dichloroethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,3,5-Trimethylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
4-Chlorotoluene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Chlorobenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
4-Methyl-2-pentanone (MIBK)	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
cis-1,2-Dichloroethene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
4-Isopropyltoluene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
cis-1,3-Dichloropropene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
n-Propylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Styrene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Dibromomethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
trans-1,3-Dichloropropene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2,4-Trichlorobenzene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1,2,2-Tetrachloroethane	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2-Dibromo-3-chloropropane	ND	127	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Tetrachloroethene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
2-Chloroethyl Vinyl Ether	ND	127	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Dibromochloromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,3-Dichloropropane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2-Dibromoethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Carbon tetrachloride	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1,1,2-Tetrachloroethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Chloroform	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Bromobenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2,3-Trichloropropane	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Chloromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Bromomethane	ND	254	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Bromochloromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Vinyl chloride	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Dichlorodifluoromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW



SGS Ref.# 1075213001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Client Sample ID 01886-3-B26SS
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/22/2007 11:39
Collected Date/Time 09/27/2007 18:12
Received Date/Time 09/28/2007 10:40
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Chloroethane	ND	254	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
sec-Butylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Bromodichloromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1-Dichloroethene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
2-Butanone (MEK)	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Methylene chloride	ND	127	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Trichlorofluoromethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
P & M -Xylene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Naphthalene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
o-Xylene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Bromoform	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Xylenes (total)	ND	127	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2,4-Trimethylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
tert-Butylbenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1,1-Trichloroethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1-Dichloroethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
2-Chlorotoluene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Trichloroethene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
trans-1,2-Dichloroethene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2-Dichlorobenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
2,2-Dichloropropane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Hexachlorobutadiene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Isopropylbenzene (Cumene)	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
2-Hexanone	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2-Dichloropropane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1-Dichloropropene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,1,2-Trichloroethane	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,3-Dichlorobenzene	ND	31.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
1,2,3-Trichlorobenzene	ND	63.4	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW
Methyl-t-butyl ether	ND	50.7	ug/Kg	SW8260B	A		09/27/07	10/09/07	KPW



SGS Ref.# 1075213001
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Client Sample ID 01886-3-B26SS
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time
Printed Date/Time 10/22/2007 11:39
Collected Date/Time 09/27/2007 18:12
Received Date/Time 09/28/2007 10:40
Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
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Volatile Gas Chromatography/Mass Spectroscopy

Surrogates

1,2-Dichloroethane-D4 <surr>	102		%	SW8260B	A	80-137	09/27/07	10/09/07	KPW
Toluene-d8 <surr>	115		%	SW8260B	A	80-122	09/27/07	10/09/07	KPW
4-Bromofluorobenzene <surr>	103		%	SW8260B	A	42-147	09/27/07	10/09/07	KPW

Solids

Total Solids	97.5		%	SM20 2540G	B			10/06/07	BEN
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SGS Ref.# 797056 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch XXX18688
Method SW3550B
Date 10/08/2007

QC results affect the following production samples:
1075213001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
<u>Polychlorinated Biphenyls</u>					
Aroclor-1016	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1221	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1232	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1242	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1248	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1254	ND	49.2	14.8	ug/Kg	10/09/07
Aroclor-1260	ND	49.2	14.8	ug/Kg	10/09/07
Surrogates					
Decachlorobiphenyl <surr>	116	60-125		%	10/09/07
Batch	XGC5974				
Method	SW8082				
Instrument	HP 5890 Series II ECD SV I F				



SGS Ref.# 797086 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch
Method
Date

QC results affect the following production samples:
1075213001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Solids

Total Solids	100			%	10/06/07
Batch	SPT7440				
Method	SM20 2540G				
Instrument					



SGS Ref.# 797408 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch XXX18696
Method SW3550B
Date 10/09/2007

QC results affect the following production samples:
1075213001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	20.0	2.00	mg/Kg	10/15/07
Surrogates					
5a Androstane <surr>	93.6	60-120		%	10/15/07
Batch	XFC7667				
Method	AK102				
Instrument	HP 5890 Series II FID SV D F				
Residual Range Organics	6.86 J	20.0	2.00	mg/Kg	10/15/07
Surrogates					
n-Triacontane-d62 <surr>	96.9	60-120		%	10/15/07
Batch	XFC7667				
Method	AK103				
Instrument	HP 5890 Series II FID SV D F				



SGS Ref.# 797677 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

QC results affect the following production samples:
1075213001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797677 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Benzene	ND	13.0	3.90	ug/Kg	10/09/07
Toluene	ND	50.0	15.0	ug/Kg	10/09/07
Ethylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
n-Butylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
Carbon disulfide	ND	100	31.0	ug/Kg	10/09/07
1,4-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/09/07
1,2-Dichloroethane	ND	25.0	7.80	ug/Kg	10/09/07
1,3,5-Trimethylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
4-Chlorotoluene	ND	25.0	7.80	ug/Kg	10/09/07
Chlorobenzene	ND	25.0	7.80	ug/Kg	10/09/07
4-Methyl-2-pentanone (MIBK)	ND	250	78.0	ug/Kg	10/09/07
cis-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	10/09/07
4-Isopropyltoluene	ND	25.0	7.80	ug/Kg	10/09/07
cis-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	10/09/07
n-Propylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
Styrene	ND	25.0	7.80	ug/Kg	10/09/07
Dibromomethane	ND	25.0	7.80	ug/Kg	10/09/07
trans-1,3-Dichloropropene	ND	25.0	7.80	ug/Kg	10/09/07
1,2,4-Trichlorobenzene	ND	50.0	15.0	ug/Kg	10/09/07
1,1,2,2-Tetrachloroethane	ND	50.0	15.0	ug/Kg	10/09/07
1,2-Dibromo-3-chloropropane	ND	100	31.0	ug/Kg	10/09/07
Tetrachloroethene	ND	25.0	7.80	ug/Kg	10/09/07
Dibromochloromethane	ND	25.0	7.80	ug/Kg	10/09/07
1,3-Dichloropropane	ND	25.0	7.80	ug/Kg	10/09/07
1,2-Dibromoethane	ND	25.0	7.80	ug/Kg	10/09/07
Carbon tetrachloride	ND	25.0	7.80	ug/Kg	10/09/07
1,1,1,2-Tetrachloroethane	ND	25.0	7.80	ug/Kg	10/09/07
Chloroform	ND	25.0	7.80	ug/Kg	10/09/07
Bromobenzene	ND	25.0	7.80	ug/Kg	10/09/07
Chloromethane	ND	25.0	7.80	ug/Kg	10/09/07
1,2,3-Trichloropropane	ND	50.0	15.0	ug/Kg	10/09/07
Bromomethane	ND	200	62.0	ug/Kg	10/09/07
Bromochloromethane	ND	25.0	7.80	ug/Kg	10/09/07
Vinyl chloride	ND	25.0	7.80	ug/Kg	10/09/07
Dichlorodifluoromethane	ND	25.0	7.80	ug/Kg	10/09/07
Chloroethane	ND	200	62.0	ug/Kg	10/09/07
sec-Butylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
Bromodichloromethane	ND	25.0	7.80	ug/Kg	10/09/07
1,1-Dichloroethene	ND	25.0	7.80	ug/Kg	10/09/07



SGS Ref.# 797677 Method Blank
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

2-Butanone (MEK)	ND	250	78.0	ug/Kg	10/09/07
Methylene chloride	ND	100	31.0	ug/Kg	10/09/07
Trichlorofluoromethane	ND	25.0	7.80	ug/Kg	10/09/07
P & M -Xylene	ND	50.0	15.0	ug/Kg	10/09/07
Naphthalene	ND	50.0	15.0	ug/Kg	10/09/07
o-Xylene	ND	50.0	15.0	ug/Kg	10/09/07
Bromoform	ND	25.0	7.80	ug/Kg	10/09/07
Xylenes (total)	ND	100	30.0	ug/Kg	10/09/07
1,2,4-Trimethylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
tert-Butylbenzene	ND	25.0	7.80	ug/Kg	10/09/07
1,1,1-Trichloroethane	ND	25.0	7.80	ug/Kg	10/09/07
1,1-Dichloroethane	ND	25.0	7.80	ug/Kg	10/09/07
2-Chlorotoluene	ND	25.0	7.80	ug/Kg	10/09/07
Trichloroethene	ND	25.0	7.80	ug/Kg	10/09/07
trans-1,2-Dichloroethene	ND	25.0	7.80	ug/Kg	10/09/07
1,2-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/09/07
2,2-Dichloropropane	ND	25.0	7.80	ug/Kg	10/09/07
Hexachlorobutadiene	ND	50.0	15.0	ug/Kg	10/09/07
Isopropylbenzene (Cumene)	ND	25.0	7.80	ug/Kg	10/09/07
2-Hexanone	ND	250	78.0	ug/Kg	10/09/07
1,2-Dichloropropane	ND	25.0	7.80	ug/Kg	10/09/07
1,1-Dichloropropene	ND	25.0	7.80	ug/Kg	10/09/07
1,1,2-Trichloroethane	ND	25.0	7.80	ug/Kg	10/09/07
1,3-Dichlorobenzene	ND	25.0	7.80	ug/Kg	10/09/07
1,2,3-Trichlorobenzene	ND	50.0	15.0	ug/Kg	10/09/07
Methyl-t-butyl ether	ND	40.0	12.0	ug/Kg	10/09/07

Surrogates

1,2-Dichloroethane-D4 <surr>	97.3	80-137		%	10/09/07
Toluene-d8 <surr>	112	80-122		%	10/09/07
4-Bromofluorobenzene <surr>	108	42-147		%	10/09/07

Batch VMS9446
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 797087 Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Original 1075223009
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch
Method
Date

QC results affect the following production samples:

1075213001

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

Total Solids	87.7	87.6	%	0	(< 5)	10/06/2007
Batch	SPT7440					
Method	SM20 2540G					
Instrument						



SGS Ref.# 797057 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch XXX18688
Method SW3550B
Date 10/08/2007

QC results affect the following production samples:

1075213001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS 384	87	(47-120)			440 ug/Kg	10/09/2007
Aroclor-1260	LCS 443	101	(60-130)			440 ug/Kg	10/09/2007
Surrogates							
Decachlorobiphenyl <surr>	LCS	114	(60-125)				10/09/2007

Batch XGC5974
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 797409 Lab Control Sample
 797410 Lab Control Sample Duplicate
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch XXX18696
Method SW3550B
Date 10/09/2007

QC results affect the following production samples:
 1075213001

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	27.3	83	(75-125)		32.8 mg/Kg	10/15/2007
	LCSD	31.2	94		13	(< 20)	33.1 mg/Kg 10/15/2007

Surrogates

5a Androstane <surr>	LCS		82	(60-120)			10/15/2007
	LCSD		93		14		10/15/2007

Batch XFC7667
Method AK102
Instrument HP 5890 Series II FID SV D F

Residual Range Organics	LCS	29.3	90	(60-120)		32.8 mg/Kg	10/15/2007
	LCSD	32.7	99		11	(< 20)	33.1 mg/Kg 10/15/2007

Surrogates

n-Triacontane-d62 <surr>	LCS		103	(60-120)			10/15/2007
	LCSD		117		14		10/15/2007

Batch XFC7667
Method AK103
Instrument HP 5890 Series II FID SV D F



SGS Ref.# 797678 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

QC results affect the following production samples:

1075213001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797678 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep VXX17498
Batch SW5035A
Method
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 784	105	(80-125)			750 ug/Kg	10/09/2007
Toluene	LCS 797	106	(80-120)			750 ug/Kg	10/09/2007
Ethylbenzene	LCS 786	105	(80-120)			750 ug/Kg	10/09/2007
n-Butylbenzene	LCS 802	107	(80-123)			750 ug/Kg	10/09/2007
Carbon disulfide	LCS 1220	109	(61-135)			1130 ug/Kg	10/09/2007
1,4-Dichlorobenzene	LCS 755	101	(80-120)			750 ug/Kg	10/09/2007
1,2-Dichloroethane	LCS 646	86	(80-133)			750 ug/Kg	10/09/2007
1,3,5-Trimethylbenzene	LCS 783	104	(80-120)			750 ug/Kg	10/09/2007
4-Chlorotoluene	LCS 790	105	(80-120)			750 ug/Kg	10/09/2007
Chlorobenzene	LCS 798	106	(80-122)			750 ug/Kg	10/09/2007
4-Methyl-2-pentanone (MIBK)	LCS 2170	96	(76-120)			2250 ug/Kg	10/09/2007
cis-1,2-Dichloroethene	LCS 785	105	(80-124)			750 ug/Kg	10/09/2007
4-Isopropyltoluene	LCS 792	106	(80-120)			750 ug/Kg	10/09/2007
cis-1,3-Dichloropropene	LCS 765	102	(80-120)			750 ug/Kg	10/09/2007
n-Propylbenzene	LCS 801	107	(80-122)			750 ug/Kg	10/09/2007
Styrene	LCS 805	107	(80-120)			750 ug/Kg	10/09/2007
Dibromomethane	LCS 766	102	(79-126)			750 ug/Kg	10/09/2007
trans-1,3-Dichloropropene	LCS 764	102	(80-120)			750 ug/Kg	10/09/2007
1,2,4-Trichlorobenzene	LCS 781	104	(80-122)			750 ug/Kg	10/09/2007
1,1,2,2-Tetrachloroethane	LCS 777	104	(79-120)			750 ug/Kg	10/09/2007
1,2-Dibromo-3-chloropropane	LCS 731	97	(64-128)			750 ug/Kg	10/09/2007



SGS Ref.# 797678 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Tetrachloroethene	LCS 780	104	(78-124)			750 ug/Kg	10/09/2007
Dibromochloromethane	LCS 719	96	(80-122)			750 ug/Kg	10/09/2007
1,3-Dichloropropane	LCS 782	104	(80-120)			750 ug/Kg	10/09/2007
1,2-Dibromoethane	LCS 763	102	(80-121)			750 ug/Kg	10/09/2007
Carbon tetrachloride	LCS 735	98	(73-133)			750 ug/Kg	10/09/2007
1,1,1,2-Tetrachloroethane	LCS 761	101	(78-125)			750 ug/Kg	10/09/2007
Chloroform	LCS 741	99	(80-124)			750 ug/Kg	10/09/2007
Bromobenzene	LCS 756	101	(80-120)			750 ug/Kg	10/09/2007
Chloromethane	LCS 781	104	(68-129)			750 ug/Kg	10/09/2007
1,2,3-Trichloropropane	LCS 733	98	(75-121)			750 ug/Kg	10/09/2007
Bromomethane	LCS 674	90	(52-140)			750 ug/Kg	10/09/2007
Bromochloromethane	LCS 790	105	(78-125)			750 ug/Kg	10/09/2007
Vinyl chloride	LCS 801	107	(78-125)			750 ug/Kg	10/09/2007
Dichlorodifluoromethane	LCS 819	109	(67-135)			750 ug/Kg	10/09/2007
Chloroethane	LCS 872	116	(53-141)			750 ug/Kg	10/09/2007
sec-Butylbenzene	LCS 798	106	(80-120)			750 ug/Kg	10/09/2007
Bromodichloromethane	LCS 732	98	(80-126)			750 ug/Kg	10/09/2007
1,1-Dichloroethene	LCS 793	106	(73-126)			750 ug/Kg	10/09/2007
2-Butanone (MEK)	LCS 2220	99	(70-124)			2250 ug/Kg	10/09/2007
Methylene chloride	LCS 792	106	(76-124)			750 ug/Kg	10/09/2007



SGS Ref.# 797678 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Trichlorofluoromethane	LCS 667	89	(58-172)			750 ug/Kg	10/09/2007
P & M -Xylene	LCS 1590	106	(80-120)			1500 ug/Kg	10/09/2007
Naphthalene	LCS 741	99	(71-121)			750 ug/Kg	10/09/2007
o-Xylene	LCS 797	106	(80-120)			750 ug/Kg	10/09/2007
Bromoform	LCS 720	96	(74-129)			750 ug/Kg	10/09/2007
Xylenes (total)	LCS 2380	106	(80-120)			2250 ug/Kg	10/09/2007
1,2,4-Trimethylbenzene	LCS 771	103	(80-120)			750 ug/Kg	10/09/2007
tert-Butylbenzene	LCS 776	103	(80-120)			750 ug/Kg	10/09/2007
1,1,1-Trichloroethane	LCS 722	96	(77-130)			750 ug/Kg	10/09/2007
1,1-Dichloroethane	LCS 783	104	(80-120)			750 ug/Kg	10/09/2007
2-Chlorotoluene	LCS 779	104	(80-123)			750 ug/Kg	10/09/2007
Trichloroethene	LCS 757	101	(80-122)			750 ug/Kg	10/09/2007
trans-1,2-Dichloroethene	LCS 808	108	(80-126)			750 ug/Kg	10/09/2007
1,2-Dichlorobenzene	LCS 765	102	(80-120)			750 ug/Kg	10/09/2007
2,2-Dichloropropane	LCS 732	98	(80-134)			750 ug/Kg	10/09/2007
Hexachlorobutadiene	LCS 742	99	(78-133)			750 ug/Kg	10/09/2007
Isopropylbenzene (Cumene)	LCS 790	105	(80-120)			750 ug/Kg	10/09/2007
2-Hexanone	LCS 2180	97	(63-125)			2250 ug/Kg	10/09/2007
1,2-Dichloropropane	LCS 798	106	(80-120)			750 ug/Kg	10/09/2007
1,1-Dichloropropene	LCS 793	106	(80-124)			750 ug/Kg	10/09/2007
1,1,2-Trichloroethane	LCS 790	105	(82-120)			750 ug/Kg	10/09/2007



SGS Ref.# 797678 Lab Control Sample
Client Name Shannon & Wilson Inc.
Project Name/# 32-1-01886-3, Anch Fish Hatch
Matrix Soil/Solid

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method SW5035A
Date 10/09/2007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

1,3-Dichlorobenzene	LCS	749	100	(80-120)		750 ug/Kg	10/09/2007
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1,2,3-Trichlorobenzene	LCS	766	102	(77-126)		750 ug/Kg	10/09/2007
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Methyl-t-butyl ether	LCS	1060	94	(78-123)		1130 ug/Kg	10/09/2007
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Surrogates

1,2-Dichloroethane-D4 <surr>	LCS		97	(80-137)			10/09/2007
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Toluene-d8 <surr>	LCS		109	(80-122)			10/09/2007
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4-Bromofluorobenzene <surr>	LCS		103	(42-147)			10/09/2007
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Batch VMS9446
Method SW8260B
Instrument HP 5890 Series II MS1 VMA



SGS Ref.# 797058 Matrix Spike
797059 Matrix Spike Duplicate

Printed Date/Time 10/22/2007 11:39
Prep Batch XXX18688
Method Sonication Extraction Soil SW8
Date 10/08/2007

Original 1075213001
Matrix Soil/Solid

QC results affect the following production samples:
1075213001

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	238	105	(47-120)			226 ug/Kg	10/10/2007
	MSD		231	102		3	(< 30)	227 ug/Kg	10/10/2007
Aroclor-1260	MS	ND	282	125	(60-130)			226 ug/Kg	10/10/2007
	MSD		282	125		0	(< 30)	227 ug/Kg	10/10/2007
Surrogates									
Decachlorobiphenyl <surr>	MS		165	73	(60-125)				10/10/2007
	MSD		168	74		2			10/10/2007

Batch XGC5975
Method SW8082
Instrument HP 5890 Series II ECD SV I F



SGS Ref.# 797684 Matrix Spike
797685 Matrix Spike Duplicate

Printed Date/Time 10/22/2007 11:39
Prep Batch VXX17498
Method Vol. Extraction SW8260 Field I
Date 10/09/2007

Original 797679
Matrix Soil/Solid

QC results affect the following production samples:

1075213001

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 797684 Matrix Spike **Printed Date/Time** 10/22/2007 11:39
 797685 Matrix Spike Duplicate **Prep Batch** VXX17498
Method Vol. Extraction SW8260 Field I
Date 10/09/2007
Original 797679
Matrix Soil/Solid

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	632	103	(80-125)			615 ug/Kg	10/09/2007
	MSD		643	105		2	(< 20)	615 ug/Kg	10/09/2007
Toluene	MS	ND	633	103	(80-120)			615 ug/Kg	10/09/2007
	MSD		645	105		2	(< 20)	615 ug/Kg	10/09/2007
Ethylbenzene	MS	ND	629	102	(80-120)			615 ug/Kg	10/09/2007
	MSD		637	104		1	(< 20)	615 ug/Kg	10/09/2007
n-Butylbenzene	MS	ND	665	108	(80-123)			615 ug/Kg	10/09/2007
	MSD		676	110		2	(< 20)	615 ug/Kg	10/09/2007
Carbon disulfide	MS	ND	995	108	(61-135)			922 ug/Kg	10/09/2007
	MSD		1010	109		1	(< 20)	922 ug/Kg	10/09/2007
1,4-Dichlorobenzene	MS	ND	623	101	(80-120)			615 ug/Kg	10/09/2007
	MSD		609	99		2	(< 20)	615 ug/Kg	10/09/2007
1,2-Dichloroethane	MS	ND	580	94	(80-133)			615 ug/Kg	10/09/2007
	MSD		571	93		2	(< 20)	615 ug/Kg	10/09/2007
1,3,5-Trimethylbenzene	MS	ND	642	104	(80-120)			615 ug/Kg	10/09/2007
	MSD		655	107		2	(< 20)	615 ug/Kg	10/09/2007
4-Chlorotoluene	MS	ND	657	107	(80-120)			615 ug/Kg	10/09/2007
	MSD		666	108		1	(< 20)	615 ug/Kg	10/09/2007
Chlorobenzene	MS	ND	638	104	(80-122)			615 ug/Kg	10/09/2007
	MSD		642	104		1	(< 20)	615 ug/Kg	10/09/2007
4-Methyl-2-pentanone (MIBK)	MS	ND	1860	101	(76-120)			1840 ug/Kg	10/09/2007
	MSD		1620	88		14	(< 20)	1840 ug/Kg	10/09/2007
cis-1,2-Dichloroethene	MS	ND	625	102	(80-124)			615 ug/Kg	10/09/2007
	MSD		644	105		3	(< 20)	615 ug/Kg	10/09/2007
4-Isopropyltoluene	MS	ND	651	106	(80-120)			615 ug/Kg	10/09/2007
	MSD		666	108		2	(< 20)	615 ug/Kg	10/09/2007
cis-1,3-Dichloropropene	MS	ND	615	100	(80-120)			615 ug/Kg	10/09/2007
	MSD		609	99		1	(< 20)	615 ug/Kg	10/09/2007
n-Propylbenzene	MS	ND	667	108	(80-122)			615 ug/Kg	10/09/2007
	MSD		685	111		3	(< 20)	615 ug/Kg	10/09/2007
Styrene	MS	ND	642	105	(80-120)			615 ug/Kg	10/09/2007
	MSD		642	104		0	(< 20)	615 ug/Kg	10/09/2007
Dibromomethane	MS	ND	624	102	(79-126)			615 ug/Kg	10/09/2007
	MSD		599	98		4	(< 20)	615 ug/Kg	10/09/2007
trans-1,3-Dichloropropene	MS	ND	626	102	(80-120)			615 ug/Kg	10/09/2007
	MSD		598	97		5	(< 20)	615 ug/Kg	10/09/2007
1,2,4-Trichlorobenzene	MS	ND	625	102	(80-122)			615 ug/Kg	10/09/2007
	MSD		604	98		3	(< 20)	615 ug/Kg	10/09/2007
1,1,2,2-Tetrachloroethane	MS	ND	689	112	(79-120)			615 ug/Kg	10/09/2007
	MSD		617	100		11	(< 20)	615 ug/Kg	10/09/2007



SGS Ref.# 797684 Matrix Spike **Printed Date/Time** 10/22/2007 11:39
 797685 Matrix Spike Duplicate **Prep Batch** VXX17498
Method Vol. Extraction SW8260 Field I
Date 10/09/2007
Original 797679
Matrix Soil/Solid

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	MS	ND	637	104	(64-128)			615 ug/Kg	10/09/2007
	MSD		540	88		16	(< 20)	615 ug/Kg	10/09/2007
Tetrachloroethene	MS	ND	622	101	(78-124)			615 ug/Kg	10/09/2007
	MSD		625	102		1	(< 20)	615 ug/Kg	10/09/2007
Dibromochloromethane	MS	ND	585	95	(80-122)			615 ug/Kg	10/09/2007
	MSD		559	91		5	(< 20)	615 ug/Kg	10/09/2007
1,3-Dichloropropane	MS	ND	641	104	(80-120)			615 ug/Kg	10/09/2007
	MSD		612	100		5	(< 20)	615 ug/Kg	10/09/2007
1,2-Dibromoethane	MS	ND	626	102	(80-121)			615 ug/Kg	10/09/2007
	MSD		588	96		6	(< 20)	615 ug/Kg	10/09/2007
Carbon tetrachloride	MS	ND	584	95	(73-133)			615 ug/Kg	10/09/2007
	MSD		586	95		0	(< 20)	615 ug/Kg	10/09/2007
1,1,1,2-Tetrachloroethane	MS	ND	614	100	(78-125)			615 ug/Kg	10/09/2007
	MSD		603	98		2	(< 20)	615 ug/Kg	10/09/2007
Chloroform	MS	ND	605	98	(80-124)			615 ug/Kg	10/09/2007
	MSD		605	99		0	(< 20)	615 ug/Kg	10/09/2007
Bromobenzene	MS	ND	640	104	(80-120)			615 ug/Kg	10/09/2007
	MSD		626	102		2	(< 20)	615 ug/Kg	10/09/2007
Chloromethane	MS	ND	634	103	(68-129)			615 ug/Kg	10/09/2007
	MSD		633	103		0	(< 20)	615 ug/Kg	10/09/2007
1,2,3-Trichloropropane	MS	ND	655	107	(75-121)			615 ug/Kg	10/09/2007
	MSD		578	94		13	(< 20)	615 ug/Kg	10/09/2007
Bromomethane	MS	ND	544	89	(52-140)			615 ug/Kg	10/09/2007
	MSD		571	93		5	(< 20)	615 ug/Kg	10/09/2007
Bromochloromethane	MS	ND	650	106	(78-125)			615 ug/Kg	10/09/2007
	MSD		639	104		2	(< 20)	615 ug/Kg	10/09/2007
Vinyl chloride	MS	ND	644	105	(78-125)			615 ug/Kg	10/09/2007
	MSD		628	102		2	(< 20)	615 ug/Kg	10/09/2007
Dichlorodifluoromethane	MS	ND	646	105	(67-135)			615 ug/Kg	10/09/2007
	MSD		655	107		1	(< 20)	615 ug/Kg	10/09/2007
Chloroethane	MS	ND	1560	255*	(53-141)			615 ug/Kg	10/09/2007
	MSD		2870	467*		59 *	(< 20)	615 ug/Kg	10/09/2007
sec-Butylbenzene	MS	ND	665	108	(80-120)			615 ug/Kg	10/09/2007
	MSD		686	112		3	(< 20)	615 ug/Kg	10/09/2007
Bromodichloromethane	MS	ND	596	97	(80-126)			615 ug/Kg	10/09/2007
	MSD		592	96		1	(< 20)	615 ug/Kg	10/09/2007
1,1-Dichloroethene	MS	ND	642	104	(73-126)			615 ug/Kg	10/09/2007
	MSD		649	106		1	(< 20)	615 ug/Kg	10/09/2007
2-Butanone (MEK)	MS	ND	1920	104	(70-124)			1840 ug/Kg	10/09/2007
	MSD		1650	90		15	(< 20)	1840 ug/Kg	10/09/2007



SGS Ref.#	797684	Matrix Spike	Printed Date/Time	10/22/2007 11:39
	797685	Matrix Spike Duplicate	Prep	VXX17498
			Batch	Vol. Extraction SW8260 Field I
			Method	10/09/2007
			Date	
Original	797679			
Matrix	Soil/Solid			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Methylene chloride	MS	ND	642	105	(76-124)			615 ug/Kg	10/09/2007
	MSD		643	105		0	(< 20)	615 ug/Kg	10/09/2007
Trichlorofluoromethane	MS	ND	609	99	(58-172)			615 ug/Kg	10/09/2007
	MSD		645	105		6	(< 20)	615 ug/Kg	10/09/2007
P & M -Xylene	MS	ND	1260	102	(80-120)			1230 ug/Kg	10/09/2007
	MSD		1280	104		2	(< 20)	1230 ug/Kg	10/09/2007
Naphthalene	MS	ND	635	103	(71-121)			615 ug/Kg	10/09/2007
	MSD		567	92		11	(< 20)	615 ug/Kg	10/09/2007
o-Xylene	MS	ND	642	104	(80-120)			615 ug/Kg	10/09/2007
	MSD		639	104		0	(< 20)	615 ug/Kg	10/09/2007
Bromoform	MS	ND	593	97	(74-129)			615 ug/Kg	10/09/2007
	MSD		545	89		9	(< 20)	615 ug/Kg	10/09/2007
Xylenes (total)	MS	ND	1900	103	(80-120)			1840 ug/Kg	10/09/2007
	MSD		1920	104		1		1840 ug/Kg	10/09/2007
1,2,4-Trimethylbenzene	MS	ND	639	104	(80-120)			615 ug/Kg	10/09/2007
	MSD		652	106		2	(< 20)	615 ug/Kg	10/09/2007
tert-Butylbenzene	MS	ND	649	106	(80-120)			615 ug/Kg	10/09/2007
	MSD		663	108		2	(< 20)	615 ug/Kg	10/09/2007
1,1,1-Trichloroethane	MS	ND	580	94	(77-130)			615 ug/Kg	10/09/2007
	MSD		587	96		1	(< 20)	615 ug/Kg	10/09/2007
1,1-Dichloroethane	MS	ND	631	103	(80-120)			615 ug/Kg	10/09/2007
	MSD		642	104		2	(< 20)	615 ug/Kg	10/09/2007
2-Chlorotoluene	MS	ND	655	107	(80-123)			615 ug/Kg	10/09/2007
	MSD		673	110		3	(< 20)	615 ug/Kg	10/09/2007
Trichloroethene	MS	ND	614	100	(80-122)			615 ug/Kg	10/09/2007
	MSD		631	103		3	(< 20)	615 ug/Kg	10/09/2007
trans-1,2-Dichloroethene	MS	ND	647	105	(80-126)			615 ug/Kg	10/09/2007
	MSD		654	106		1	(< 20)	615 ug/Kg	10/09/2007
1,2-Dichlorobenzene	MS	ND	633	103	(80-120)			615 ug/Kg	10/09/2007
	MSD		625	102		1	(< 20)	615 ug/Kg	10/09/2007
2,2-Dichloropropane	MS	ND	583	95	(80-134)			615 ug/Kg	10/09/2007
	MSD		596	97		2	(< 20)	615 ug/Kg	10/09/2007
Hexachlorobutadiene	MS	ND	562	92	(78-133)			615 ug/Kg	10/09/2007
	MSD		565	92		0	(< 20)	615 ug/Kg	10/09/2007
Isopropylbenzene (Cumene)	MS	ND	631	103	(80-120)			615 ug/Kg	10/09/2007
	MSD		636	103		1	(< 20)	615 ug/Kg	10/09/2007
2-Hexanone	MS	ND	1890	102	(63-125)			1840 ug/Kg	10/09/2007
	MSD		1560	85		19	(< 20)	1840 ug/Kg	10/09/2007
1,2-Dichloropropane	MS	ND	652	106	(80-120)			615 ug/Kg	10/09/2007
	MSD		655	107		0	(< 20)	615 ug/Kg	10/09/2007



SGS Ref.# 797684 Matrix Spike **Printed Date/Time** 10/22/2007 11:39
 797685 Matrix Spike Duplicate **Prep Batch** VXX17498
Method Vol. Extraction SW8260 Field I
Date 10/09/2007
Original 797679
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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Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloropropene	MS	ND	642	104	(80-124)			615 ug/Kg	10/09/2007
	MSD		650	106		1	(< 20)	615 ug/Kg	10/09/2007
1,1,2-Trichloroethane	MS	ND	643	105	(82-120)			615 ug/Kg	10/09/2007
	MSD		616	100		4	(< 20)	615 ug/Kg	10/09/2007
1,3-Dichlorobenzene	MS	ND	611	99	(80-120)			615 ug/Kg	10/09/2007
	MSD		616	100		1	(< 20)	615 ug/Kg	10/09/2007
1,2,3-Trichlorobenzene	MS	ND	620	101	(77-126)			615 ug/Kg	10/09/2007
	MSD		589	96		5	(< 20)	615 ug/Kg	10/09/2007
Methyl-t-butyl ether	MS	ND	880	96	(78-123)			922 ug/Kg	10/09/2007
	MSD		803	87		9	(< 20)	922 ug/Kg	10/09/2007

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		616	100	(80-137)				10/09/2007
	MSD		599	97		3			10/09/2007
Toluene-d8 <surr>	MS		680	111	(80-122)				10/09/2007
	MSD		683	111		0			10/09/2007
4-Bromofluorobenzene <surr>	MS		1380	84	(42-147)				10/09/2007
	MSD		1420	87		3			10/09/2007

Batch VMS9446
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

1075213

SGS

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: 10/11/07
 Received Date: 9/28/07
 Received Time: 1040
 Is date/time conversion necessary? NO
 # of hours to AK Local Time: _____
 Thermometer ID: 6972 70D

Cooler ID	Temp Blank	Cooler Temp
1	1.2 °C	3.5 °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 / Carllie
 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): [Signature] (print): Joe Ruedi
 Login proof (check one): waived _____ required _____ performed by: _____

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 Environmental Services - WO#1075213

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:

NA

2. Chain of Custody (COC)

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

Yes No Comments:

b. Correct analyses requested?

Yes No Comments:

3. Laboratory Sample Receipt Documentation

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

Yes No Comments:

Temperature blank 1.2 degrees C but cooler temperature was 3.5 degrees C

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

Yes No Comments:

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

Yes No Comments:

No undesirable sample conditions noted

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:

No discrepancies noted

e. Data quality or usability affected? Explain.

Comments:

No

4. Case Narrative

a. Present and understandable?

Yes No Comments:

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

Yes No Comments:

MS/MSD and CCV failures

c. Were all corrective actions documented?

Yes No Comments:

LCS/LCSD substituted for controls for MS/MSD

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

Comments:

Data quality/usability is not affected

5. Samples Results

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

Yes No Comments:

b. All applicable holding times met?

Yes No Comments:

c. All soils reported on a dry weight basis?

Yes No

Comments:

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

Yes No

Comments:

e. Data quality or usability affected? Explain.

Comments:

No

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:

NA

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

Yes No

Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

No

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

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

Yes No Comments:

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

Yes No Comments:

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

Yes No Comments:

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

Yes No Comments:

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

Comments:

NA

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

Yes No Comments:

NA

vii. Data quality or usability affected? Explain.

Comments:

No

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:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

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:

Only one soil sample submitted under this work order and no trip blank was included

ii. All results less than PQL?

Yes No Comments:

NA

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Data quality or usability affected? Explain.

Comments:

No

e. Field Duplicate

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

Yes No Comments:

A duplicate soil sample was collected as part of this sampling plan and submitted under WO1075115

ii. Submitted blind to lab?

Yes No

Comments:

NA

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

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

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No

Comments:

NA

iv. Data quality or usability affected? Explain.

Comments:

NA

f. Decontamination or Equipment Blank (if applicable)

Yes No Not Applicable

i. All results less than PQL?

Yes No

Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

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

a. Defined and appropriate?

Yes No

Comments:

Lab Specific Qualifiers defined on page following Case Narrative

Completed by:

Jessica Busey

Title:

Environmental Scientist III

Date:

October 25, 2007

CS Report Name:

Site Characterization, Anchorage Fish Hatchery, Anchorage, Alaska

Report Date:

October 2007

Consultant Firm:

Shannon & Wilson, Inc

Laboratory Name:

SGS Environmental Services

Laboratory Report Number:

WO 1075213

ADEC File Number:

none

ADEC RecKey Number:

none

ATTACHMENT 3

**“IMPORTANT INFORMATION ABOUT YOUR
GEOTECHNICAL/ENVIRONMENTAL REPORT”**



Date: November 2007
To: HDR Alaska, Inc
Re: Anchorage Fish Hatchery, Anchorage, Alaska

Important Information About Your Geotechnical/Environmental Report

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by *scope-of-service limitations imposed by the client*. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors, which were considered in the development of the report, have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on *conditions that existed at the time of subsurface exploration*, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland