Stantec Consulting Services Inc.
725 East Fireweed Lane Suite 200, Anchorage AK 99503-2245

October 26, 2022
File: 203721236

Attention: Shelby Lathrop
Chevron Environmental Management Company
6001 Bollinger Canyon Road C2092
San Ramon, CA 94583

Dear Ms. Lathrop,

Reference: Chevron Swanson River Plant 10 PCB Monitoring Report for 2022
File Number 2334.38.013, Hazard ID 1303

Stantec has prepared this letter report on behalf of Chevron Environmental Management Company (CEMC), providing the results of semi-annual sampling as established in Amendment #4 to the Order by Consent (OBC) for Compressor Plant 10 (Plant 10) at the Swanson River facility. The OBC was originally issued by the U.S. Fish and Wildlife Service (USFWS) on August 6, 1985, and Amendment #4 was issued on September 5, 1990.

The polychlorinated biphenyl (PCB) contamination at Plant 10 is believed to originate from a January 1972 explosion at the compressor plant that released an undetermined amount of Aroclor 1248 heat transfer oil to the environment. Historical minor leaks and spills from the heat transfer fluid system may have also contributed to the PCB contamination, and Aroclor 1242 and Aroclor 1248 were listed as the primary contaminants of concern in the OBC. A remediation effort occurred at the plant in 1988-89 in response to the OBC, during which the PCB contaminated soils were remediated to the OBC cleanup level of 12 ppm and the site was listed as “Cleanup Complete with Institutional Controls” (ADEC File Number 2334.38.016, Hazard ID 175). Amendment #4 was issued in 1990 to allow for the remaining PCBs to remain in the soil beneath the compressor plant until permanent closure of the field or until PCBs are detected in the groundwater. Semi-annual sampling of the four monitoring wells around Plant 10 is a mandatory requirement of the amendment.

In accordance with Amendment #4 of the OBC, PCB groundwater monitoring was conducted twice in 2022, on June 7th and September 6th. On both occasions groundwater samples were collected from the four existing monitoring wells at Plant 10 (CP-A, CP-BR, CP-C, and CP-F) utilizing low-flow purge and sample techniques in accordance with Environmental Protection Agency (EPA) sampling procedures. Water quality parameters and water level measurements were collected and recorded on sample forms and the samples were analyzed by SGS North America for PCBs using EPA Method 8082A.

This letter report includes three attachments:

- Attachment A includes the current and historical analytical results for Plant 10,
- Attachment B includes the laboratory reports and laboratory data review checklists, and
- Attachment C includes a site location map and Plant 10 well locations.

Reference: Chevron Swanson River Plant 10 PCB Monitoring Report for 2022File Number 2334.38.013, Hazard ID 1303

Table 1 (Attachment A) shows that all 2022 sample results continue to be non-detectable (ND) at concentrations above the method detection limit (DL). The DL for each individual PCB and total PCBs was used to compare to cleanup levels. For all samples, there were no detections or DLs above the cleanup levels established by the OBC.

Table 1 continues to show that only one sampling event (October 2006 at one location, CP-A) had detectable total PCBs over the entire 22-year sampling and analysis record. Since that 2006 event, sampling has continued with no detectable PCB Aroclors.

In accordance with the OBC, Amendment #4, and ADEC's letter of January 31, 2017, semi-annual groundwater sampling is currently planned for 2023 at Plant 10.

If you have any questions regarding this letter report, please contact the undersigned.

Best regards,

Stantec Consulting Services Inc.

Craig Wilson
Principal
Phone: 907 266 1128
Cell: 907 240 3752
craig.wilson@stantec.com

Attachment: Attachment A Summary of Current and Historical Analytical Results
Attachment B Laboratory Reports and ADEC Laboratory Data Review Checklist
Attachment C Figures

c. Peter Campbell, ADEC (via email)
Lynnda Kahn, USFWS (via email)
Sharon L. Yarawsky, BLM (via email)
Michelle Mullin, EPA Region 10 (via email)

Attachment A

Summary of Current and Historical Analytical Results

Attachment A

Table 1. Plant 10 Current and Historical Groundwater Analytical Results and Groundwater Elevations

	CP-A			CP-BR			CP-C			CP-F		
Date	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)
ADEC Groundwater Cleanup Levels [a]			**0.5**	**—**	**—**	**0.5**	**—**	**—**	**0.5**	**—**	**—**	**0.5**
10/19/2000	11.51	156.40	*ND(0.51)*	15.42	152.96	*ND(0.51)*	10.59	158.10	*ND(0.51)*	11.44	158.04	*ND(0.51)/ ND(0.53)*
6/26/2001	9.01	158.90	*ND(0.50)*	16.34	152.04	*ND(0.50)/ ND(0.050)*	10.87	157.81	*ND(0.50)*	10.88	158.61	*ND(0.53)*
10/19/2001	10.84	157.07	*ND(0.51)*	17.66	150.72	*ND(0.53)*	10.28	158.41	*ND(0.53)*	11.99	157.49	*ND(0.50)/ ND(0.50)*
6/30/2002	6.53	161.38	*ND(0.51)*	16.99	151.39	*ND(0.51)*	8.98	159.71	*ND(0.053)/ ND(0.53)*	5.95	163.53	*ND(0.51)*
10/29/2002	7.58	160.33	*ND(0.50)*	13.59	154.79	*ND(0.050)*	9.31	159.38	*ND(0.050)*	8.67	160.81	*ND(0.50)/ ND(0.50)*
5/14/2003	9.99	157.95	ND(0.052)	16.19	151.86	*ND(0.051)*	11.22	157.33	*ND(0.51)*	11.58	158.12	*ND(0.51)/ ND(0.52)*
10/8/2003	6.22	162.54	ND(0.054)	10.11	157.94	ND(0.053)	10.62	157.93	*ND(0.53)*	7.16	162.72	*ND(0.54)/ ND(0.54)*
5/17/2004	6.23	161.71	*ND(1.0)*	8.32	159.73	*ND(1.0)*	9.01	159.54	*ND(1.0)*	7.46	162.24	*ND(1.0)/ ND(1.0)*
10/20/2004	5.42	162.52	*ND(1.0)*	9.09	158.96	*ND(1.0)*	6.85	161.70	*ND(1.0)*	7.10	162.60	*ND(1.0)/ ND(1.0)*
5/19/2005	5.83	162.11	*ND(1.0)*	9.03	159.02	*ND(1.0)*	8.61	161.85	*ND(1.0)*	6.70	161.10	*ND(1.0)/ ND(1.0)*
11/8/2005	6.84	161.10	*ND(0.95)*	9.65	158.40	*ND(0.95)*	8.05	160.50	*ND(0.95)*	8.45	161.25	*ND(0.95)/ ND(0.95)*
6/22/2006	9.40	158.54	*ND(0.97)*	12.83	155.22	*ND(0.94)*	10.16	158.39	*ND(0.96)*	9.49	160.21	*ND(0.96)/ ND(0.96)*
10/13/2006	4.88	163.06	**1.55**	7.94	160.11	*ND(0.48)*	6.45	162.10	*ND(0.48)*	6.41	163.29	*ND(0.48)/ ND(0.47)*
5/18/2007	10.93	157.01	*ND(0.48)*	14.77	153.28	*ND(0.48)*	9.90	158.65	*ND(0.48)*	13.08	156.62	*ND(0.48)/ ND(0.48)*
11/8/2007	5.82	162.12	*ND(0.48)*	10.42	157.63	*ND(0.47)*	7.48	161.07	*ND(0.48)*	8.28	161.42	*ND(0.49)/ ND(0.49)*
6/4/2008	7.84	160.10	*ND(0.57)*	13.93	154.12	*ND(0.57)*	10.84	157.71	*ND(0.57)*	11.87	157.83	*ND(0.57)/ ND(1.1)*
11/17/2008	8.40	159.54	ND(0.19)	11.74	156.31	ND(0.095)	8.78	159.77	ND(0.097)	9.01	160.69	*ND(0.10)/ ND(0.19)*
6/15/2009	9.52	158.42	ND(0.095)	13.69	154.36	ND(0.095)	10.03	158.52	ND(0.095)	11.75	157.95	ND(0.095)/ ND(0.095)
11/18/2009	12.84	155.10	*ND(0.48)*	18.19	149.86	*ND(0.48)*	12.03	156.52	*ND(0.48)*	14.71	155.53	*ND(0.48)/ ND(0.48)*
5/11/2010	12.57	155.37	*ND(0.48)*	24.04	144.01	*ND(0.48)*	10.61	157.94	*ND(0.47)/ ND(0.48)*	Dry		
11/30/2010	10.45	157.49	ND(0.0952)	18.81	149.24	ND(0.191)	9.66	158.89	ND(0.0978)/ ND(0.0964)	11.52	158.18	ND(0.188)
7/26/2011	13.42	154.52	*ND(0.63)*	22.02	146.03	*ND(0.47)/ ND(0.47)*	11.53	157.02	*ND(0.47)*	Off-limits due to Plant 10 demolition		
12/26/2011	10.08	157.86	ND(0.194)	15.34	152.71	ND(0.196)	8.63	159.92	ND(0.192)	10.50	159.20	ND(0.191)/ ND(0.191)
6/1/2012	7.50	160.44	*ND(0.49)*	11.90	156.15	*ND(0.49)*	8.82	159.73	*ND(0.48)*	9.12	160.58	*ND(0.48)*
1/13/2013	12.65	155.29	ND(0.095)	15.52	152.53	ND(0.101)/ ND(0.099)	11.08	157.47	ND(0.095)	11.62	158.08	ND(0.099)

Attachment A

Table 1. Plant 10 Current and Historical Groundwater Analytical Results and Groundwater Elevations

	CP-A			CP-BR			CP-C			CP-F		
Date	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)	Depth to Groundwater (ft)	Groundwater Elevation AMSL (ft)	PCB (µg/L)
ADEC Groundwater Cleanup Levels [a]			**0.5**	**—**	**—**	**0.5**	**—**	**—**	**0.5**	**—**	**—**	**0.5**
6/26/2013	4.73	163.21	ND(0.347)	6.90	161.15	ND(0.354)	7.43	161.12	ND(0.350)	5.80	163.90	ND(0.373)
10/15/2013	5.60	162.34	ND(0.352)	10.01	158.04	ND(0.343)	6.26	162.29	ND(0.336)	6.80	162.90	ND(0.359)
6/23/2014	PVC riser damaged [b]		ND(0.358)	13.29	154.76	ND(0.370)	9.85	158.70	ND(0.350)	10.55	159.15	ND(0.363)
10/9/2014			ND(0.358)	11.10	156.95	ND(0.361)	13.20	155.35	ND(0.336)	8.12	161.58	ND(0.350)
7/8/2015	3.33	165.55	*ND(0.604)*	12.93	155.93	*ND(0.606)*	8.09	161.86	*ND(0.585)*	3.66	166.88	*ND(0.600)*
10/2/2015	4.29	164.59	ND(0.226)	9.16	159.70	ND(0.226)	5.24	164.71	ND(0.226)	5.09	165.45	ND(0.226)
8/3/2016	11.68	157.20	ND(0.160)	15.06	153.80	ND(0.180)	11.80	158.15	ND(0.180)	12.26	158.28	ND(0.175)
9/29/2016	15.30	153.75	ND(0.229)	11.26	157.60	ND(0.182)	7.83	162.12	ND(0.184)	17.98	152.56	ND(0.229)
7/7/2017[c]	12.17	156.71	ND(0.099)/ ND(0.099)	20.62	148.24	ND(0.10)	10.56	159.39	ND(0.097)	14.53	156.01	ND(0.098)
9/21/2017[c]	7.04	161.84	ND(0.098) JS-/ ND(0.10)	12.80	156.06	ND(0.096) JS-	9.59	160.36	ND(0.10)	8.72	161.82	ND(0.11) JS-
ADEC Groundwater Cleanup Levels [e]			**0.44**	**—**	**—**	**0.44**	**—**	**—**	**0.44**	**—**	**—**	**0.44**
7/15/2018[d]	10.30	158.58	ND[0.076] JS- / ND[0.077]	13.52	155.34	ND[0.076]	11.34	158.61	ND[0.077]	11.47	159.07	ND[0.076] JS-
9/22/2018[d]	12.05	156.83	ND[0.077] / ND[0.081]	15.33	153.53	ND[0.082]	11.70	158.25	ND[0.073]	12.32	158.22	ND[0.076] JS-
8/2/2019[f]	12.28	156.60	ND [0.333]	14.84	154.02	ND [0.320]	11.91	158.04	ND [0.341]	13.10	157.44	ND [0.344]
7/25/2020[f]	10.14	158.74	ND[0.0326]	12.85	156.01	ND[0.0369]	10.15	159.80	ND[0.0326]	10.43	160.11	ND[0.0365]
9/11/2020[f]	15.35	153.53	ND[0.0323]	12.38	156.48	ND[0.0348]	11.06	158.89	ND[0.0344]	17.80	152.74	ND[0.0323]
6/22/2021[f]	8.92	159.96	ND[0.0555]	12.39	156.47	ND[0.0580]	9.68	160.27	ND[0.0500]	10.23	160.31	ND[0.0500] / ND[0.0500]
9/23/2021[f]	10.15	158.73	ND[0.0515]	13.50	155.36	ND[0.0515]	10.77	159.18	ND[0.0550] / ND[0.0550]	10.26	160.28	ND[0.0580]
6/7/2022[f]	8.69	160.19	ND[0.0540]	9.96	158.90	ND[0.0540]	9.49	160.46	ND[0.0550]	9.17	161.37	ND[0.0540]
9/6/2022[f]	4.39	157.61	ND[0.0520]	7.22	161.64	ND[0.0540]	4.96	156.55	ND[0.0520]	6.45	164.09	ND[0.0510]

Notes:

Results above site-specific cleanup levels are underlined and **bolded**.

Non-detect results with reporting limits above the 2018 site-specific amended cleanup level of 0.44 µg/L are *italicized.*

2013 PCB results are for total aroclor.

Plant 10 monitoring wells were resurveyed in October 2015.

Water was discharging out of Plant 10 vent above CP-F on 7/8/15. Water was pooled around CP-F and flowing toward CP-A, which also had water pooled around the security casing.

Two sets of analytical results are reported and separated by "/" when a duplicate sample was collected.

AMSL = above mean sea level

ft = feet

— = Not applicable

JS- = One or more surrogates recovered outside of control criteria (biased low)

ND = Analyte not detected above the laboratory reporting/mthod detection limit (provided in parentheses or brackets).

PCB = polychlorinated biphenyl

µg/L = Micrograms per liter

[a] Alaska Department of Environmental Conservation (ADEC), 2017, Title 18, Alaska Administrative Code Chapter 75 (18 AAC 75), Oil and Other Hazardous Substances Pollution Control, Table C.

[b] Polyvinyl chloride (PVC) riser was damaged, and technician could not get water level indicator probe past the bulge in the damaged PVC riser.

[c] 2017 ND value in () is the TestAmerica laboratory reporting limit.

[d] 2018 ND value in [] is the TestAmerica method detection limit.

[e] ADEC 2018, 18 AAC 75, Table C. October 27, 2018.

[f] ND value in [ ] is the SGS detection limit.

Attachment B

Laboratory Reports and ADEC Laboratory Data Review Checklists

Laboratory Report of Analysis

To: Stantec Consulting Services Inc.
725 East Fireweed Lane, #200
Anchorage, AK 99503
(907)266-1148

Report Number: **1222992**

Client Project: **SRU-Plant 10**

Dear Douglas Quist,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1222992**
Project Name/Site: **SRU-Plant 10**
Project Contact: **Douglas Quist**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 05/31/2022 for Nitrate as N by SM 4500NO3-F) & Microbiology & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
CP-C	1222992001	06/07/2022	06/13/2022	Water (Surface, Eff., Ground)
Duplicate 1	1222992002	06/07/2022	06/13/2022	Water (Surface, Eff., Ground)
CP-F	1222992003	06/07/2022	06/13/2022	Water (Surface, Eff., Ground)
CP-A	1222992004	06/07/2022	06/13/2022	Water (Surface, Eff., Ground)
CP-BR	1222992005	06/07/2022	06/13/2022	Water (Surface, Eff., Ground)

Method	Method Description
SW8082A	SW8082 PCB's

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Results of **CP-C**

Client Sample ID: **CP-C**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1222992001
Lab Project ID: 1222992

Collection Date: 06/07/22 12:10
Received Date: 06/13/22 11:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Aroclor-1221	0.550	U	1.10	0.341	ug/L	1		06/29/22 15:39
Aroclor-1232	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Aroclor-1242	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Aroclor-1248	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Aroclor-1254	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Aroclor-1260	0.0550	U	0.110	0.0341	ug/L	1		06/29/22 15:39
Surrogates								
Decachlorobiphenyl (surr)	92.5		40-135		%	1		06/29/22 15:39

Batch Information

Analytical Batch: XGC11142
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 06/29/22 15:39
Container ID: 1222992001-A

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 06/21/22 09:30
Prep Initial Wt./Vol.: 910 mL
Prep Extract Vol: 1 mL

Print Date: 06/30/2022 4:14:41PM

J flagging is activated

Results of **Duplicate 1**

Client Sample ID: **Duplicate 1**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1222992002
Lab Project ID: 1222992

Collection Date: 06/07/22 12:13
Received Date: 06/13/22 11:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		06/29/22 15:49
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 15:49
Surrogates								
Decachlorobiphenyl (surr)	92.5		40-135		%	1		06/29/22 15:49

Batch Information

Analytical Batch: XGC11142
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 06/29/22 15:49
Container ID: 1222992002-A

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 06/21/22 09:30
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Results of **CP-F**

Client Sample ID: **CP-F**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1222992003
Lab Project ID: 1222992

Collection Date: 06/07/22 13:37
Received Date: 06/13/22 11:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		06/29/22 16:00
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:00
Surrogates								
Decachlorobiphenyl (surr)	97.5		40-135		%	1		06/29/22 16:00

Batch Information

Analytical Batch: XGC11142
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 06/29/22 16:00
Container ID: 1222992003-A

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 06/21/22 09:30
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Print Date: 06/30/2022 4:14:41PM

J flagging is activated

Results of **CP-A**

Client Sample ID: **CP-A**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1222992004
Lab Project ID: 1222992

Collection Date: 06/07/22 14:10
Received Date: 06/13/22 11:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		06/29/22 16:10
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:10
Surrogates								
Decachlorobiphenyl (surr)	108		40-135		%	1		06/29/22 16:10

Batch Information

Analytical Batch: XGC11142
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 06/29/22 16:10
Container ID: 1222992004-A

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 06/21/22 09:30
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Results of **CP-BR**

Client Sample ID: **CP-BR**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1222992005
Lab Project ID: 1222992

Collection Date: 06/07/22 14:50
Received Date: 06/13/22 11:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		06/29/22 16:31
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		06/29/22 16:31
Surrogates								
Decachlorobiphenyl (surr)	103		40-135		%	1		06/29/22 16:31

Batch Information

Analytical Batch: XGC11142
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 06/29/22 16:31
Container ID: 1222992005-A

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 06/21/22 09:30
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Print Date: 06/30/2022 4:14:41PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1838196 [XXX/46448]
Blank Lab ID: 1668947

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1222992001, 1222992002, 1222992003, 1222992004, 1222992005

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	0.0500U	0.100	0.0310	ug/L
Aroclor-1221	0.500U	1.00	0.310	ug/L
Aroclor-1232	0.0500U	0.100	0.0310	ug/L
Aroclor-1242	0.0500U	0.100	0.0310	ug/L
Aroclor-1248	0.0500U	0.100	0.0310	ug/L
Aroclor-1254	0.0500U	0.100	0.0310	ug/L
Aroclor-1260	0.0500U	0.100	0.0310	ug/L
Surrogates				
Decachlorobiphenyl (surr)	90	40-135		%

Batch Information

Analytical Batch: XGC11143
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW R
Analyst: CRF
Analytical Date/Time: 6/28/2022 9:20:00PM

Prep Batch: XXX46448
Prep Method: SW3520C
Prep Date/Time: 6/21/2022 9:30:27AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1222992 [XXX46448]
Blank Spike Lab ID: 1668948
Date Analyzed: 06/28/2022 21:31

Spike Duplicate ID: LCSD for HBN 1222992 [XXX46448]
Spike Duplicate Lab ID: 1668949
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222992001, 1222992002, 1222992003, 1222992004, 1222992005

Results by **SW8082A**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	1	0.700	70	1	0.790	79	(46-129)	12.10	(< 30)
Aroclor-1260	1	0.860	86	1	0.950	95	(45-134)	9.94	(< 30)
Surrogates									
Decachlorobiphenyl (surr)	0.400		90	0.400		93	(40-135)	2.74	

Batch Information

Analytical Batch: **XGC11143**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW R**
Analyst: **CRF**

Prep Batch: **XXX46448**
Prep Method: **SW3520C**
Prep Date/Time: **06/21/2022 09:30**
Spike Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1222992

Profile # 3629270

Instructions: Sections 1 - 5 must be filled o
Omissions may delay the onset of analysis.

Page 1 of 1

Section 1

CLIENT: StantecC

CONTACT: Craig Wilson
PHONE #: 907-240-3752

PROJECT NAME: SRG-Plant 10
PROJECT/ PWSID/ PERMIT#: 203721236

REPORTS TO: Craig Wilson
E-MAIL: Profile #: craig.wilson@stantec.com

INVOICE TO: StantecC
QUOTE #:
P.O. #:

Section 3 — Preservative

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Analysis* 8082-PCB	NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS — REMARKS/LOC ID
(1) A-B	CP-C	6/7/22	1210	W	2	G	X	
(2) A-B	Duplicate 1	6/7/22	1213	W	2	G	X	
(3) A-B	CP-F	6/7/22	1337	W	2	G	X	
(4) A-B	CP-A	6/7/22	1410	W	2	G	X	
(5) A-B	CP-BR	6/7/22	1450	W	2	G	X	

Section 5

	Date	Time	
Relinquished By: (1)	6/13/22	0850	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/13/22	11:06	Received For Laboratory By: CDS

Section 4

DOD Project? Yes (No)

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:
Standard

Temp Blank °C: 3.7 D23
or Ambient [ ]

Chain of Custody Seal: (Circle)
INTACT BROKEN (ABSENT)

Delivery Method: Hand Delivery [X] Commerical Delivery [ ]

e-Sample Receipt Form

SGS Workorder #:	1222992	1222992

Review Criteria	Condition (Yes, No, N/A	Exceptions Noted below
Chain of Custody / Temperature Requirements	*Note:* Temperature and COC seal information is found on the chain of custody form	
DOD only: Did all sample coolers have a corresponding COC?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note containers received with ice:		
Identify any containers received at non-compliant temperature: *(Use form FS-0029 if more space is needed)*		
Holding Time / Documentation / Sample Condition Requirements	*Note:* Refer to form F-083 "Sample Guide" for specific holding times and sample containers.	
Were samples received within analytical holding time?	Yes	
Do sample labels match COC? Record discrepancies.	Yes	
Note: *If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.*		
Were analytical requests clear? *(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)*	Yes	
Were proper containers (type/mass/volume/preservative)used? Note: Exemption for metals analysis by 200.8/6020 in water.	Yes	
Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)		
Were all soil VOAs received with a corresponding % solids container?	N/A	
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with Methanol+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1222992001-A	No Preservative Required	OK			
1222992001-B	No Preservative Required	OK			
1222992002-A	No Preservative Required	OK			
1222992002-B	No Preservative Required	OK			
1222992003-A	No Preservative Required	OK			
1222992003-B	No Preservative Required	OK			
1222992004-A	No Preservative Required	OK			
1222992004-B	No Preservative Required	OK			
1222992005-A	No Preservative Required	OK			
1222992005-B	No Preservative Required	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

Laboratory Data Review Checklist

Completed By:

John Marshall

Title:

Senior Environmental Scientist

Date:

10/26/2022

Consultant Firm:

Stantec Consulting Services Inc.

Laboratory Name:

SGS North America

Laboratory Report Number:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

ADEC File Number:

2334.38.013

Hazard Identification Number:

1303

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

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

   Yes☒ No☐ N/A☐ Comments:

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

   Yes☐ No☐ N/A☒ Comments:

   Samples not transferred

2. Chain of Custody (CoC)

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

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

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

   Yes☐ No☐ N/A☒ Comments:

   None

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

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

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☐ N/A☒ Comments:

No discrepancies documented.

e. Data quality or usability affected?

Comments:

No.

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☒ N/A☐ Comments:

c. Were all corrective actions documented?

Yes☒ No☐ N/A☒ Comments:

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

Comments:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

5. Samples Results

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

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

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

Yes☒ No☐ N/A☐ Comments:

e. Data quality or usability affected?

No.

6. QC Samples

a. Method Blank

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

Yes☒ No☐ N/A☐ Comments:

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☒ No☐ N/A☐ Comments:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

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

Yes☐ No☐ N/A☒ Comments:

No samples affected.

v. Data quality or usability affected?

Comments:

No.

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

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☐ N/A☒ Comments:

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

Yes☒ No☐ N/A☐ Comments:

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

Yes☒ No☐ N/A☐ Comments:

1222992

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6/30/2022

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Swanson River Unit

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

Comments:

N/A

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

Yes☐ No☐ N/A☒ Comments:

No affected samples

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No.

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Note: Leave blank if not required for project

i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☐ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes☐ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.

Yes☐ No☐ N/A☐ Comments:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

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

Comments:

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

Yes☐ No☐ N/A☐ Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

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

Yes☐ No☐ N/A☒ Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)

Yes☐ No☐ N/A☒ Comments:

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

Yes☐ No☐ N/A☒ Comments:

iv. Data quality or usability affected?

Comments:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☐ No☐ N/A☒ Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☐ No☐ N/A☒ Comments:

iii. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

v. Data quality or usability affected?

Comments:

f. Field Duplicate

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

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

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

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

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No.

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

i. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

iii. Data quality or usability affected?

Comments:

No.

1222992

Laboratory Report Date:

6/30/2022

CS Site Name:

Swanson River Unit

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

   a. Defined and appropriate?

      Yes☐ No☐ N/A☒ Comments:

Laboratory Report of Analysis

To: Stantec Consulting Services Inc.
725 East Fireweed Lane, #200
Anchorage, AK 99503
(907)266-1148

Report Number: **1225501**

Client Project: **SRU-Plant 10**

Dear Douglas Quist,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1225501**
Project Name/Site: **SRU-Plant 10**
Project Contact: **Douglas Quist**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
SW8082A				
1686976	CCV for HBN 1844032 (XGC/11205	XGC11205	Aroclor-1016	BLC
1686978	CCV for HBN 1844032 (XGC/11205	XGC11205	Aroclor-1016	BLC
1687071	CCV for HBN 1844032 (XGC/11205	XGC11205	Aroclor-1016	BLC
1687071	CCV for HBN 1844032 (XGC/11205	XGC11205	Aroclor-1260	BLC

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

Print Date: 09/22/2022 3:01:15PM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
CP-C	1225501001	09/06/2022	09/12/2022	Water (Surface, Eff., Ground)
Duplicate 1	1225501002	09/06/2022	09/12/2022	Water (Surface, Eff., Ground)
CP-F	1225501003	09/06/2022	09/12/2022	Water (Surface, Eff., Ground)
CP-A	1225501004	09/06/2022	09/12/2022	Water (Surface, Eff., Ground)
CP-BR	1225501005	09/06/2022	09/12/2022	Water (Surface, Eff., Ground)

Method	Method Description
SW8082A	SW8082 PCB's

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Results of **CP-C**

Client Sample ID: **CP-C**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1225501001
Lab Project ID: 1225501

Collection Date: 09/06/22 13:25
Received Date: 09/12/22 11:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Aroclor-1221	0.520	U	1.04	0.321	ug/L	1		09/21/22 14:15
Aroclor-1232	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Aroclor-1242	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Aroclor-1248	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Aroclor-1254	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Aroclor-1260	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:15
Surrogates								
Decachlorobiphenyl (surr)	80		40-135		%	1		09/21/22 14:15

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 09/21/22 14:15
Container ID: 1225501001-A

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 09/20/22 11:52
Prep Initial Wt./Vol.: 965 mL
Prep Extract Vol: 1 mL

Results of **Duplicate 1**

Client Sample ID: **Duplicate 1**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1225501002
Lab Project ID: 1225501

Collection Date: 09/06/22 13:28
Received Date: 09/12/22 11:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Aroclor-1221	0.520	U	1.04	0.323	ug/L	1		09/21/22 14:25
Aroclor-1232	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Aroclor-1242	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Aroclor-1248	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Aroclor-1254	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Aroclor-1260	0.0520	U	0.104	0.0323	ug/L	1		09/21/22 14:25
Surrogates								
Decachlorobiphenyl (surr)	80		40-135		%	1		09/21/22 14:25

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 09/21/22 14:25
Container ID: 1225501002-A

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 09/20/22 11:52
Prep Initial Wt./Vol.: 960 mL
Prep Extract Vol: 1 mL

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Results of **CP-F**

Client Sample ID: **CP-F**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1225501003
Lab Project ID: 1225501

Collection Date: 09/06/22 14:45
Received Date: 09/12/22 11:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Aroclor-1221	0.510	U	1.02	0.316	ug/L	1		09/21/22 14:36
Aroclor-1232	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Aroclor-1242	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Aroclor-1248	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Aroclor-1254	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Aroclor-1260	0.0510	U	0.102	0.0316	ug/L	1		09/21/22 14:36
Surrogates								
Decachlorobiphenyl (surr)	70		40-135		%	1		09/21/22 14:36

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 09/21/22 14:36
Container ID: 1225501003-A

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 09/20/22 11:52
Prep Initial Wt./Vol.: 980 mL
Prep Extract Vol: 1 mL

Print Date: 09/22/2022 3:01:20PM

J flagging is activated

Results of **CP-A**

Client Sample ID: **CP-A**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1225501004
Lab Project ID: 1225501

Collection Date: 09/06/22 15:43
Received Date: 09/12/22 11:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Aroclor-1221	0.520	U	1.04	0.321	ug/L	1		09/21/22 14:46
Aroclor-1232	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Aroclor-1242	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Aroclor-1248	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Aroclor-1254	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Aroclor-1260	0.0520	U	0.104	0.0321	ug/L	1		09/21/22 14:46
Surrogates								
Decachlorobiphenyl (surr)	72.5		40-135		%	1		09/21/22 14:46

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 09/21/22 14:46
Container ID: 1225501004-A

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 09/20/22 11:52
Prep Initial Wt./Vol.: 965 mL
Prep Extract Vol: 1 mL

Print Date: 09/22/2022 3:01:20PM

J flagging is activated

Results of **CP-BR**

Client Sample ID: **CP-BR**
Client Project ID: **SRU-Plant 10**
Lab Sample ID: 1225501005
Lab Project ID: 1225501

Collection Date: 09/06/22 16:28
Received Date: 09/12/22 11:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		09/21/22 14:56
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		09/21/22 14:56
Surrogates								
Decachlorobiphenyl (surr)	72.5		40-135		%	1		09/21/22 14:56

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Analyst: CRF
Analytical Date/Time: 09/21/22 14:56
Container ID: 1225501005-A

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 09/20/22 11:52
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Print Date: 09/22/2022 3:01:20PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1843947 [XXX/47013]
Blank Lab ID: 1686601

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225501001, 1225501002, 1225501003, 1225501004, 1225501005

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	0.0500U	0.100	0.0310	ug/L
Aroclor-1221	0.500U	1.00	0.310	ug/L
Aroclor-1232	0.0500U	0.100	0.0310	ug/L
Aroclor-1242	0.0500U	0.100	0.0310	ug/L
Aroclor-1248	0.0500U	0.100	0.0310	ug/L
Aroclor-1254	0.0500U	0.100	0.0310	ug/L
Aroclor-1260	0.0500U	0.100	0.0310	ug/L
Surrogates				
Decachlorobiphenyl (surr)	85	40-135		%

Batch Information

Analytical Batch: XGC11205
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: BRP
Analytical Date/Time: 9/21/2022 1:03:00PM

Prep Batch: XXX47013
Prep Method: SW3520C
Prep Date/Time: 9/20/2022 11:52:49AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1225501 [XXX47013]
Blank Spike Lab ID: 1686602
Date Analyzed: 09/21/2022 13:13

Spike Duplicate ID: LCSD for HBN 1225501 [XXX47013]
Spike Duplicate Lab ID: 1686603
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225501001, 1225501002, 1225501003, 1225501004, 1225501005

Results by **SW8082A**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	1	0.730	73	1	0.700	70	(46-129)	4.20	(< 30)
Aroclor-1260	1	0.800	80	1	0.740	74	(45-134)	7.79	(< 30)
Surrogates									
Decachlorobiphenyl (surr)	0.400		85	0.400		78	(40-135)	9.23	

Batch Information

Analytical Batch: **XGC11205**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW F**
Analyst: **BRP**

Prep Batch: **XXX47013**
Prep Method: **SW3520C**
Prep Date/Time: **09/20/2022 11:52**
Spike Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL

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CHAIN OF CUSTODY RECORD

1225501

Profile #32427 QM

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Stantec	
CONTACT: John Marshall	PHONE #: 907-266-1108
PROJECT NAME: SRU-Plant 10	PROJECT/ PWSID/ PERMIT#: 2037212136
REPORTS TO: Craig Wilson	E-MAIL: Profile #: craig.wilson@stantec.com
INVOICE TO: Stantec	QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Analysis*									REMARKS/LOC ID
							1									
							CVOC									
1AB	CP-C	9/6/22	1325	W	2	G	X									
2AB	Duplicate 1	9/6/22	1328	W	2	G	X									
3AB	CP-F	9/6/22	1445	W	2	G	X									
4AB	CP-A	9/6/22	1543	W	2	G	X									
5AB	CP-BR	9/6/22	1628	W	2	G	X									

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Date	Time	
Relinquished By: (1)	9/12/22	0900	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	9/12/22	11:11	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Standard

Temp Blank °C: 2.7 D23 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

Delivery Method: Hand Delivery [X] Commerical Delivery [ ]

STANTEC PLANT 10 20220829

SGS North America Inc.

200 W. Potter Dr., Anchorage, AK 99518 (ph) 907-562-2343, (fax) 907-561-5301

3180 Peger Rd. Ste. 190, Fairbanks, AK 99709 (ph) 907-474-8656

Sample Kit Request

Client pickup Date: 9/2/2022 **Time:** 12:00

Be sure to ask if client will ship by ground (DOT) or air carrier (IATA)

Does a Profile exist in LIMS? **If not, please send a request for new profile build.**

Client Name: Stantec

Ordered By: John Marshall

Email: john.marshall@stantec.com

Project Name: Plant 10

Quote #: **Profile#:**

Delivery Address:

Deliver to client:

Ship by/Air Carrier:

Airbill Number:

Date to ship by:

Notes:

Kit request taken by: DBR **Date:** August 29, 2022

Kit prepared by: NZ **Date:** 8-31-22

Kit *(including lid tightness for pres'd bottles)* checked by: NB **Date:** 8.31.22

Kit packed & shipped by: NC **Date:** 8.31.22

Filename: SKIT_Stantec_Plant 10_2022-08-29 *Required Items

No. Samples	Matrix	Analysis	Container Size & Type		Pres.	Preservative Bottle Lot #	Preservative Lot #	Hold Time	# QC Bottles	Total Bottles
5	Water	PCB	2 x 1-L	amber glass	None			n/s	0	10

Note: The first 10 Analysis and Preservative columns will auto-fill up to the capacity of the associated COC.

Additional Information	
Pack for Shipment via:	N/A
Temperature Blank:	Yes - Small (125 mL)
Trip Blank:	No
Coolers:	Yes
Gel Ice:	Yes
Labels:	Yes
Custody Seals:	Yes
Paper Chain of Custody:	Yes - Standard COC
Lot Number Tracking (Required for DOD):	No

Notes for Kit Prep

Attention Client/Sampler:

1. Do not rinse container, be aware of any acid preservative.
2. Fill container, but do not overfill (except volatiles).
3. Label the container with your sample ID and date/time of collection
4. Fill out the Chain of Custody.
5. Add frozen gel packs to your cooler and pack to prevent breakage.

If you have any questions please contact your Project Manager.

e-Sample Receipt Form

SGS Workorder #:	1225501	1225501

Review Criteria	Condition (Yes, No, N/A	Exceptions Noted below
Chain of Custody / Temperature Requirements	*Note:* Temperature and COC seal information is found on the chain of custody form	
DOD only: Did all sample coolers have a corresponding COC?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note containers received with ice:		
Identify any containers received at non-compliant temperature: *(Use form FS-0029 if more space is needed)*		
Holding Time / Documentation / Sample Condition Requirements	*Note:* Refer to form F-083 "Sample Guide" for specific holding times and sample containers.	
Were samples received within analytical holding time?	Yes	
Do sample labels match COC? Record discrepancies.	Yes	
Note: *If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.*		
Were analytical requests clear? *(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)*	Yes	
Were proper containers (type/mass/volume/preservative)used? Note: Exemption for metals analysis by 200.8/6020 in water.	Yes	
Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)		
Were all soil VOAs received with a corresponding % solids container?	N/A	
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with Methanol+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1225501001-A	No Preservative Required	OK			
1225501001-B	No Preservative Required	OK			
1225501002-A	No Preservative Required	OK			
1225501002-B	No Preservative Required	OK			
1225501003-A	No Preservative Required	OK			
1225501003-B	No Preservative Required	OK			
1225501004-A	No Preservative Required	OK			
1225501004-B	No Preservative Required	OK			
1225501005-A	No Preservative Required	OK			
1225501005-B	No Preservative Required	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

Laboratory Data Review Checklist

Completed By:

John Marshall

Title:

Senior Environmental Scientist

Date:

10/26/2022

Consultant Firm:

Stantec Consulting Services Inc.

Laboratory Name:

SGS North America

Laboratory Report Number:

1225501

Laboratory Report Date:

9/22/2022

CS Site Name:

Swanson River Unit

ADEC File Number:

2334.38.013

Hazard Identification Number:

1303

1225501

Laboratory Report Date:

9/22/2022

CS Site Name:

Swanson River Unit

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

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

   Yes☒ No☐ N/A☐ Comments:

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

   Yes☐ No☐ N/A☒ Comments:

   Samples not transferred

2. Chain of Custody (CoC)

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

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

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

   Yes☐ No☐ N/A☒ Comments:

   None

1225501

Laboratory Report Date:

9/22/2022

CS Site Name:

Swanson River Unit

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

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☐ N/A☒ Comments:

No discrepancies documented.

e. Data quality or usability affected?

Comments:

No.

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☒ N/A☐ Comments:

c. Were all corrective actions documented?

Yes☒ No☐ N/A☒ Comments:

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

Comments:

1225501

Laboratory Report Date:

9/22/2022

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5. Samples Results

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

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

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

Yes☒ No☐ N/A☐ Comments:

e. Data quality or usability affected?

No.

6. QC Samples

a. Method Blank

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

Yes☒ No☐ N/A☐ Comments:

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☒ No☐ N/A☐ Comments:

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iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

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

Yes☐ No☐ N/A☒ Comments:

No samples affected.

v. Data quality or usability affected?

Comments:

No.

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

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes☒ No☐ N/A☐ Comments:

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

Yes☐ No☐ N/A☒ Comments:

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

Yes☒ No☐ N/A☐ Comments:

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

Yes☒ No☐ N/A☐ Comments:

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

Comments:

N/A

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

Yes☐ No☐ N/A☒ Comments:

No affected samples

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No.

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Note: Leave blank if not required for project

i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☐ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes☐ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.

Yes☐ No☐ N/A☐ Comments:

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

Comments:

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

Yes☐ No☐ N/A☐ Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

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

Yes☐ No☐ N/A☒ Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)

Yes☐ No☐ N/A☒ Comments:

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

Yes☐ No☐ N/A☒ Comments:

iv. Data quality or usability affected?

Comments:

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e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☐ No☐ N/A☒ Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☐ No☐ N/A☒ Comments:

iii. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

v. Data quality or usability affected?

Comments:

f. Field Duplicate

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

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

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

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

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No.

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

i. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

iii. Data quality or usability affected?

Comments:

No.

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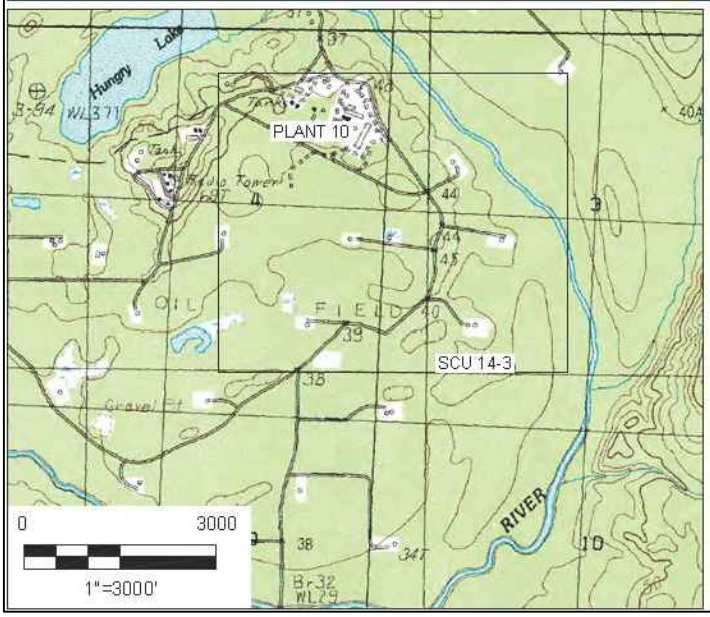
7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

   a. Defined and appropriate?

      Yes☐ No☐ N/A☒ Comments:

Attachment C

Figures



Stantec

FOR:
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COMPRESSOR PLANT 10
SWANSON RIVER FIELD
STERLING, ALASKA

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
203721237	JRO	AS	TM	07/23/19

FILEPATH:V:\1826\resource\AutoCAD\other_offices\salt_lake_ut\203721237_swanson\figures\dwg_203721237_swanson_2019.dwg | JOpalekOpsahl | Jul 23, 2019 at 11:02 | Layout: fig1_slm_10

Stantec

FOR:
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COMPRESSOR PLANT 10
SWANSON RIVER FIELD
STERLING, ALASKA

PLANT 10 SITE AND WELL LOCATION MAP

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
203721237	JRO	AS	TM	07/23/19

FILEPATH:V:\1826\resource\AutoCAD\other_offices\salt_lake_ut\203721237_swanson\figures\dwg_203721237_swanson_2019.dwg | JOpalekOpsahl | Jul 23, 2019 at 11:02 | Layout: fig2_sp_10