Laboratory Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224508**

Client Project: **WHADA**

Dear Morgan Brown,

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: **ADEC-Air & Water Quality**
SGS Project: **1224508**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

Refer to sample receipt form for information on sample condition.

WA01 (1224508001) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

WA04 (1224508002) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

WA01 (1224508003) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

WA04 (1224508004) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

LCS for HBN 1840833 [MXX/35324 (1677573) LCS

200.8 – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

1224528001(1677599MS) (1677601) MS

200.8 – Metals - MS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.
200.8 - Metals MS recoveries for several analytes do not meet QC criteria. See LCS for accuracy.

1224577001MS (1682483) MS

4500N-D - Total Kjeldahl Nitrogen - MS/MSD RPD was outside of QC criteria. Refer to LCS/LCSD for precision requirement.
4500N-D - Total Kjeldahl Nitrogen - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

1224577001MSD (1682484) MSD

4500N-D - Total Kjeldahl Nitrogen - MS/MSD RPD was outside of QC criteria. Refer to LCS/LCSD for precision requirement.

Mercury 245.1 Total was analyzed by SGS of Orlando, FL.

*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 & 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
WA01	1224508001	08/03/2022	08/03/2022	Water (Surface, Eff., Ground)
WA04	1224508002	08/03/2022	08/03/2022	Water (Surface, Eff., Ground)
WA01	1224508003	08/03/2022	08/03/2022	Water (Surface, Eff., Ground)
WA04	1224508004	08/03/2022	08/03/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM 5310B	Dissolved Organic Carbon
SM21 9223B	E Coli LT2 (Colilert Quant)
SM21 9222D	Fecal Coliform (MF)
SM21 2340B	Hardness as CaCO3 by ICP-MS
EP200.8	Metals in Drinking Water by ICP-MS DISSO
EP200.8	Metals in Water by 200.8 ICP-MS
SM21 4500NO3-F	Nitrate/Nitrite Flow injection Pres.
SM23 4500-N D	TKN by Phenate (W)
SM21 4500P-B,E	Total Phosphorus (W)

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

Detectable Results Summary

Client Sample ID: **WA01**
Lab Sample ID: 1224508001

	Parameter	Result	Units
Metals by ICP/MS	Calcium	17000	ug/L
	Hardness as CaCO3	54.4	mg/L
	Magnesium	2900	ug/L
Waters Department	TOC Average, Dissolved	2.91	mg/L
	Total Nitrate/Nitrite-N	0.305	mg/L

Client Sample ID: **WA04**
Lab Sample ID: 1224508002

	Parameter	Result	Units
Metals by ICP/MS	Calcium	29100	ug/L
	Hardness as CaCO3	91.7	mg/L
	Magnesium	4610	ug/L
Microbiology Laboratory	E. Coli	37	MPN/100mL
	Fecal Coliform	33	col/100mL
Waters Department	TOC Average, Dissolved	2.67	mg/L
	Total Nitrate/Nitrite-N	0.386	mg/L

Client Sample ID: **WA01**
Lab Sample ID: 1224508003

	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	10.2	ug/L
	Calcium	16600	ug/L
	Magnesium	2740	ug/L
	Manganese	4.70	ug/L
	Silicon	3890	ug/L
	Sodium	2680	ug/L
	Zinc	73.2	ug/L

Client Sample ID: **WA04**
Lab Sample ID: 1224508004

	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	13.0	ug/L
	Calcium	29100	ug/L
	Magnesium	4530	ug/L
	Manganese	9.71	ug/L
	Potassium	647	ug/L
	Silicon	4780	ug/L
	Sodium	4140	ug/L
	Zinc	34.7	ug/L

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 **WA01**

Client Sample ID: **WA01**
Client Project ID: **WHADA**
Lab Sample ID: 1224508001
Lab Project ID: 1224508

Collection Date: 08/03/22 12:15
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	17000		500	150	ug/L	1		08/14/22 18:31
Magnesium	2900		50.0	15.0	ug/L	1		08/14/22 18:31

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 18:31
Container ID: 1224508001-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	54.4		5.00	5.00	mg/L	1		08/14/22 18:31

Batch Information

Analytical Batch: MMS11635
Analytical Method: SM21 2340B
Analyst: HGS
Analytical Date/Time: 08/14/22 18:31
Container ID: 1224508001-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

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

Results of **WA01**

Client Sample ID: **WA01**
Client Project ID: **WHADA**
Lab Sample ID: 1224508001
Lab Project ID: 1224508

Collection Date: 08/03/22 12:15
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.91		1.00	0.400	mg/L	1		08/21/22 20:04

Batch Information

Analytical Batch: WTC3216
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/21/22 20:04
Container ID: 1224508001-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.305		0.200	0.0500	mg/L	2		08/22/22 16:40

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/22/22 16:40
Container ID: 1224508001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:03

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:03
Container ID: 1224508001-E

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:41

Print Date: 08/31/2022 7:51:22AM

Results of **WA01**

Client Sample ID: **WA01**
Client Project ID: **WHADA**
Lab Sample ID: 1224508001
Lab Project ID: 1224508

Collection Date: 08/03/22 12:15
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:41
Container ID: 1224508001-E

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224508002
Lab Project ID: 1224508

Collection Date: 08/03/22 14:10
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	29100		500	150	ug/L	1		08/14/22 18:34
Magnesium	4610		50.0	15.0	ug/L	1		08/14/22 18:34

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 18:34
Container ID: 1224508002-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	91.7		5.00	5.00	mg/L	1		08/14/22 18:34

Batch Information

Analytical Batch: MMS11635
Analytical Method: SM21 2340B
Analyst: HGS
Analytical Date/Time: 08/14/22 18:34
Container ID: 1224508002-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224508002
Lab Project ID: 1224508

Collection Date: 08/03/22 14:10
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	33		1.67	1.67	col/100mL	1		08/03/22 17:27

Batch Information

Analytical Batch: BTF19749
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/03/22 17:27
Container ID: 1224508002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	37		1	1	MPN/100m	1		08/03/22 16:42

Batch Information

Analytical Batch: BTF19748
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/03/22 16:42
Container ID: 1224508002-G

Print Date: 08/31/2022 7:51:22AM

Results of **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224508002
Lab Project ID: 1224508

Collection Date: 08/03/22 14:10
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.67		1.00	0.400	mg/L	1		08/21/22 20:18

Batch Information

Analytical Batch: WTC3216
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/21/22 20:18
Container ID: 1224508002-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.386		0.200	0.0500	mg/L	2		08/22/22 16:42

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/22/22 16:42
Container ID: 1224508002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:04

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:04
Container ID: 1224508002-E

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:43

Print Date: 08/31/2022 7:51:22AM

Results of **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224508002
Lab Project ID: 1224508

Collection Date: 08/03/22 14:10
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:43
Container ID: 1224508002-E

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **WA01**

Client Sample ID: **WA01**
Client Project ID: **WHADA**
Lab Sample ID: 1224508003
Lab Project ID: 1224508

Collection Date: 08/03/22 12:15
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 18:37
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:37
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 18:37
Barium	10.2		3.00	0.940	ug/L	1		08/14/22 18:37
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 18:37
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 18:37
Calcium	16600		500	150	ug/L	1		08/14/22 18:37
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 18:37
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 18:37
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 18:37
Iron	250	U	250	78.0	ug/L	1		08/14/22 18:37
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 18:37
Magnesium	2740		50.0	15.0	ug/L	1		08/14/22 18:37
Manganese	4.70		1.00	0.350	ug/L	1		08/14/22 18:37
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 18:37
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 18:37
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 18:37
Potassium	500	U	500	150	ug/L	1		08/14/22 18:37
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 18:37
Silicon	3890		1000	310	ug/L	1		08/14/22 18:37
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:37
Sodium	2680		500	150	ug/L	1		08/14/22 18:37
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:37
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:37
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 18:37
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 18:37
Zinc	73.2		10.0	3.10	ug/L	1		08/14/22 18:37

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 18:37
Container ID: 1224508003-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:51:22AM

Results of **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224508004
Lab Project ID: 1224508

Collection Date: 08/03/22 14:10
Received Date: 08/03/22 15:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 18:39
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:39
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 18:39
Barium	13.0		3.00	0.940	ug/L	1		08/14/22 18:39
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 18:39
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 18:39
Calcium	29100		500	150	ug/L	1		08/14/22 18:39
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 18:39
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 18:39
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 18:39
Iron	250	U	250	78.0	ug/L	1		08/14/22 18:39
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 18:39
Magnesium	4530		50.0	15.0	ug/L	1		08/14/22 18:39
Manganese	9.71		1.00	0.350	ug/L	1		08/14/22 18:39
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 18:39
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 18:39
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 18:39
Potassium	647		500	150	ug/L	1		08/14/22 18:39
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 18:39
Silicon	4780		1000	310	ug/L	1		08/14/22 18:39
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:39
Sodium	4140		500	150	ug/L	1		08/14/22 18:39
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:39
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 18:39
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 18:39
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 18:39
Zinc	34.7		10.0	3.10	ug/L	1		08/14/22 18:39

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 18:39
Container ID: 1224508004-B

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 08/05/22 12:24
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:51:22AM

Method Blank

Blank ID: MB for HBN 1840750 [BTF/19748]
Blank Lab ID: 1677285

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508002

Results by **SM21 9223B**

Parameter	Results	LOQ/CL	DL	Units
E. Coli	1U	1	1	MPN/100m

Batch Information

Analytical Batch: BTF19748
Analytical Method: SM21 9223B
Instrument:
Analyst: M.A
Analytical Date/Time: 8/3/2022 3:10:00PM

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

Method Blank

Blank ID: MB for HBN 1840751 [BTF/19749]
Blank Lab ID: 1677287

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508002

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19749
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/3/2022 5:27:00PM

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

Method Blank

Blank ID: MB for HBN 1840833 [MXX/35324]
Blank Lab ID: 1677572

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508001, 1224508002, 1224508003, 1224508004

Results by **EP200.8**

Parameter	Results	LOQ/CL	DL	Units
Aluminum	10.0U	20.0	6.20	ug/L
Antimony	0.500U	1.00	0.310	ug/L
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Beryllium	0.200U	0.400	0.130	ug/L
Cadmium	0.250U	0.500	0.150	ug/L
Calcium	250U	500	150	ug/L
Chromium	2.50U	5.00	2.50	ug/L
Cobalt	2.00U	4.00	1.20	ug/L
Copper	1.50U	3.00	1.00	ug/L
Iron	125U	250	78.0	ug/L
Lead	1.00U	2.00	0.500	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Manganese	0.500U	1.00	0.350	ug/L
Molybdenum	1.00U	2.00	0.620	ug/L
Nickel	1.00U	2.00	0.620	ug/L
Phosphorus	100U	200	62.0	ug/L
Potassium	250U	500	150	ug/L
Selenium	2.50U	5.00	1.50	ug/L
Silicon	500U	1000	310	ug/L
Silver	0.500U	1.00	0.310	ug/L
Sodium	250U	500	150	ug/L
Thallium	0.500U	1.00	0.310	ug/L
Tin	0.500U	1.00	0.310	ug/L
Titanium	12.5U	25.0	7.75	ug/L
Vanadium	10.0U	20.0	6.20	ug/L
Zinc	4.65J	10.0	3.10	ug/L

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 8/14/2022 6:04:52PM

Prep Batch: MXX35324
Prep Method: E200.2
Prep Date/Time: 8/5/2022 12:24:00PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 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 1224508 [MXX35324]
Blank Spike Lab ID: 1677573
Date Analyzed: 08/14/2022 18:07

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002, 1224508003, 1224508004

Results by **EP200.8**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)		CL
Aluminum	400	381	95		(85-115)
Antimony	400	398	100		(85-115)
Arsenic	400	383	96		(85-115)
Barium	400	386	97		(85-115)
Beryllium	40	39.4	99		(85-115)
Cadmium	40	38.3	96		(85-115)
Calcium	2000	1680	84	*	(85-115)
Chromium	160	154	96		(85-115)
Cobalt	200	196	98		(85-115)
Copper	400	394	99		(85-115)
Iron	2000	1940	97		(85-115)
Lead	400	398	100		(85-115)
Magnesium	2000	2010	101		(85-115)
Manganese	200	192	96		(85-115)
Molybdenum	160	148	93		(85-115)
Nickel	400	389	97		(85-115)
Phosphorus	200	189	95		(85-115)
Potassium	2000	1960	98		(85-115)
Selenium	400	389	97		(85-115)
Silicon	4000	3440	86		(85-115)
Silver	40	38.4	96		(85-115)
Sodium	2000	2000	100		(85-115)
Thallium	4	3.81	95		(85-115)
Tin	40	38.3	96		(85-115)
Titanium	40	38.4	96		(85-115)
Vanadium	80	74.6	93		(85-115)
Zinc	400	395	99		(85-115)

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 1224508 [MXX35324]
Blank Spike Lab ID: 1677573
Date Analyzed: 08/14/2022 18:07

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002, 1224508003, 1224508004

Results by **EP200.8**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL

Batch Information

Analytical Batch: **MMS11635**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **HGS**

Prep Batch: **MXX35324**
Prep Method: **E200.2**
Prep Date/Time: **08/05/2022 12:24**
Spike Init Wt./Vol.: 400 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

Analytical Batch: **MMS11639**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **HGS**

Prep Batch: **MXX35324**
Prep Method: **E200.2**
Prep Date/Time: **08/05/2022 12:24**
Spike Init Wt./Vol.: 4000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1677599
MS Sample ID: 1677601 MS
MSD Sample ID:

Analysis Date: 08/14/2022 18:23
Analysis Date: 08/14/2022 18:26
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002, 1224508003, 1224508004

Results by **EP200.8**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	6.75J	400	378	93				70-130		
Antimony	0.449J	400	399	100				70-130		
Arsenic	17.9	400	390	93				70-130		
Barium	45.1	400	403	90				70-130		
Beryllium	0.200U	40.0	38.3	96				70-130		
Cadmium	0.250U	40.0	38.3	96				70-130		
Calcium	18600	2000	9090	-477 *				70-130		
Chromium	2.50U	160	153	95				70-130		
Cobalt	2.00U	200	193	97				70-130		
Copper	5.31	400	387	95				70-130		
Iron	148J	2000	1980	92				70-130		
Lead	1.00U	400	397	99				70-130		
Magnesium	10200	2000	5980	-213 *				70-130		
Manganese	124	200	239	58 *				70-130		
Molybdenum	14.5	160	159	90				70-130		
Nickel	1.00U	400	386	97				70-130		
Phosphorus	818	200	509	-155 *				70-130		
Potassium	8640	2000	5360	-164 *				70-130		
Selenium	2.50U	400	386	96				70-130		
Silicon	10100	4000	7810	-57 *				70-130		
Silver	0.500U	40.0	37.8	95				70-130		
Sodium	124000	2000	50700	-3690 *				70-130		
Thallium	0.500U	4.00	3.78	94				70-130		
Tin	0.500U	40.0	38.1	95				70-130		
Titanium	12.5U	40.0	39.7	99				70-130		
Vanadium	10.0U	80.0	76.4	95				70-130		
Zinc	6.15J	400	395	97				70-130		

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 8/14/2022 6:26:27PM

Prep Batch: MXX35324
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 8/5/2022 12:24:00PM
Prep Initial Wt./Vol.: 50.00mL
Prep Extract Vol: 50.00mL

Print Date: 08/31/2022 7:51:37AM

Method Blank

Blank ID: MB for HBN 1841869 (WFI/3001)
Blank Lab ID: 1680810

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508001, 1224508002

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/22/2022 5:11:52PM

Method Blank

Blank ID: MB for HBN 1841869 (WFI/3001)
Blank Lab ID: 1680817

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508001, 1224508002

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/22/2022 4:24:37PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1224508 [WFI3001]
Blank Spike Lab ID: 1680812
Date Analyzed: 08/22/2022 17:10

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.35	94	(70-130)
Nitrite-N	2.5	2.43	97	(90-110)
Total Nitrate/Nitrite-N	5	4.78	96	(90-110)

Batch Information

Analytical Batch: **WFI3001**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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 1224508 [WFI3001]
Blank Spike Lab ID: 1680819
Date Analyzed: 08/22/2022 16:22

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.47	99	(70-130)
Nitrite-N	2.5	2.48	99	(90-110)
Total Nitrate/Nitrite-N	5	4.95	99	(90-110)

Batch Information

Analytical Batch: **WFI3001**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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

Matrix Spike Summary

Original Sample ID: 1224473001
MS Sample ID: 1680795 MS
MSD Sample ID: 1680796 MSD

Analysis Date: 08/22/2022 16:29
Analysis Date: 08/22/2022 16:31
Analysis Date: 08/22/2022 16:33
Matrix: Drinking Water

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.200U	5.00	5.33	107	5.00	5.46	109	90-110	2.40	(< 25)

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/22/2022 4:31:00PM

Print Date: 08/31/2022 7:51:46AM

Matrix Spike Summary

Original Sample ID: 1224656001
MS Sample ID: 1680797 MS
MSD Sample ID: 1680798 MSD

Analysis Date: 08/22/2022 17:15
Analysis Date: 08/22/2022 17:17
Analysis Date: 08/22/2022 17:18
Matrix: Drinking Water

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.200U	5.00	5.4	108	5.00	5.05	101	90-110	6.70	(< 25)

Batch Information

Analytical Batch: WFI3001
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/22/2022 5:17:00PM

Print Date: 08/31/2022 7:51:46AM

Method Blank

Blank ID: MB for HBN 1842196 [WXX/14380]
Blank Lab ID: 1682085

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508001, 1224508002

Results by **SM21 4500P-B,E**

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0200U	0.0400	0.0120	mg/L

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 8/25/2022 7:00:23PM

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 8/25/2022 6:40:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1224508 [WXX14380]
Blank Spike Lab ID: 1682086
Date Analyzed: 08/25/2022 19:01

Spike Duplicate ID: LCSD for HBN 1224508 [WXX14380]
Spike Duplicate Lab ID: 1682087
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500P-B,E**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.192	96	0.2	0.191	96	(75-125)	0.57	(< 25)

Batch Information

Analytical Batch: **WDA5291**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **IGK**

Prep Batch: **WXX14380**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **08/25/2022 18:40**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1224508002
MS Sample ID: 1682088 MS
MSD Sample ID: 1682089 MSD

Analysis Date: 08/25/2022 19:04
Analysis Date: 08/25/2022 19:05
Analysis Date: 08/25/2022 19:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM21 4500P-B,E**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0400U	0.200	.193	97	0.200	0.201	101	75-125	4.20	(< 25)

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 8/25/2022 7:05:18PM

Prep Batch: WXX14380
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 8/25/2022 6:40:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/31/2022 7:51:55AM

Method Blank

Blank ID: MB for HBN 1842383 [WXX/14387]
Blank Lab ID: 1682480

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224508001, 1224508002

Results by **SM23 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.375J	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 8/30/2022 9:37:00AM

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 8/29/2022 11:06:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1224508 [WXX14387]
Blank Spike Lab ID: 1682481
Date Analyzed: 08/30/2022 09:39

Spike Duplicate ID: LCSD for HBN 1224508 [WXX14387]
Spike Duplicate Lab ID: 1682482
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM23 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.58	114	4	3.97	99	(75-125)	14.10	(< 25)

Batch Information

Analytical Batch: **WDA5294**
Analytical Method: **SM23 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **MEB**

Prep Batch: **WXX14387**
Prep Method: **METHOD**
Prep Date/Time: **08/29/2022 11:06**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1224577001
MS Sample ID: 1682483 MS
MSD Sample ID: 1682484 MSD

Analysis Date: 08/30/2022 9:44
Analysis Date: 08/30/2022 9:45
Analysis Date: 08/30/2022 9:47
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224508001, 1224508002

Results by **SM23 4500-N D**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	1.00U	4.00	2.87	72	*	4.00	4.34	109	75-125	40.70 *	(< 25)

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 8/30/2022 9:45:00AM

Prep Batch: WXX14387
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 8/29/2022 11:06:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/31/2022 7:52:00AM

1224508

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

Profile #385380 gr

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown | PHONE #: 907-451-2141

PROJECT NAME: WHADA | PROJECT/ PWSID/ PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown | E-MAIL: Morgan.Brown@alaska.gov

INVOICE TO: ADEC | QUOTE #: | P.O. #:

SECTION 3

RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	PRESERVATIVE: Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				REMARKS/ LOC ID
							SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
1AE 3AB	WA01	8-3-22	12:15	SW	5	6			X	X	X	X	X				
2AG 4AB	WA04	8-3-22	2:10	SW	7	6	X	X	X	X	X	X	X				

SECTION 2

SECTION 5

	DATE	TIME	
RELINQUISHED BY: (1)	8-3-22	3:36	RECEIVED BY:
RELINQUISHED BY:(2)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(3)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(4)	8/3/22	1530	RECEIVED FOR LABORATORY BY:

SECTION 4

DOD Project?

COC ID:

Cooler ID:

DATA DELIVERABLE REQUIREMENTS:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 6-1 Dec 2

OR AMBIENT [ ]

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #:	1224508	1224508

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
1224508001-A	HNO3 to pH < 2	OK			
1224508001-B	HNO3 to pH < 2	OK			
1224508001-C	No Preservative Required	OK			
1224508001-D	HCL to pH < 2	OK			
1224508001-E	H2SO4 to pH < 2	OK			
1224508002-A	HNO3 to pH < 2	OK			
1224508002-B	HNO3 to pH < 2	OK			
1224508002-C	No Preservative Required	OK			
1224508002-D	HCL to pH < 2	OK			
1224508002-E	H2SO4 to pH < 2	OK			
1224508002-F	Na2S2O3 for Chlorine Redu	OK			
1224508002-G	Na2S2O3 for Chlorine Redu	OK			
1224508003-A	No Preservative Required	OK			
1224508003-B	HNO3 to pH < 2	OK			
1224508004-A	No Preservative Required	OK			
1224508004-B	HNO3 to pH < 2	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.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America, Inc

1224508

SGS Job Number: FA97980

Sampling Date: 08/03/22

Report to:

SGS North America, Inc
200 W Potter Dr
Anchorage, AK 99518
julie.shumway@sgs.com

ATTN: Julie Shumway

Total number of pages in report: **14**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

Sections:

1
2
3
4
5
6

Table of Contents

Sample Summary

SGS North America, Inc

1224508

Job No: FA97980

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA97980-1	08/03/22	12:15		08/09/22	AQ	Water	WA01
FA97980-2	08/03/22	14:10		08/09/22	AQ	Water	WA04

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc **Job No:** FA97980

Site: 1224508 **Report Date:** 8/25/2022 11:58:30 AM

On 08/09/2022, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 19.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA97980 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method EPA 245.1

Matrix: AQ **Batch ID:** MP41111

Insufficient sample for Matrix QC.

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FA97980
Account: SGS North America, Inc
Project: 1224508
Collected: 08/03/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA97980-1	**WA01**					
No hits reported in this sample.						
FA97980-2	**WA04**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WA01		
Lab Sample ID:	FA97980-1	**Date Sampled:**	08/03/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224508		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/24/22	08/24/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18862
(2) Prep QC Batch: MP41111

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WA04		
Lab Sample ID:	FA97980-2	**Date Sampled:**	08/03/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224508		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/24/22	08/24/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18862
(2) Prep QC Batch: MP41111

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA97980

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	SGS Orlando, FL
CONTACT:	Julie Shumway	PHONE NO:	(907) 562-2343
PROJECT NAME:	1224508	PWSID#:	
		NPDL#:	
REPORTS TO:	Julie Shumway	E-MAIL:	Julie.Shumway@sgs.com; Env.Alaska.RefLabTeam@sgs.com
INVOICE TO:	SGS - Alaska	QUOTE #:	
	env.alaska.accounting@sgs.com	P.O. #:	1224508

Additional Comments: All soils report out in dry weight unless

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	# CONTAINERS	Preservative Used: HNO3	TYPE C = COMP G = GRAB MI = Multi Incremental Soils	Mercury 245.1, Total	MS	MSD	SGS lab #	Location ID
1	WA01	08/03/2022	12:15:00	Water	1			X			1224508001	
2	WA04	08/03/2022	14:10:00	Water	1			X			1224508002	

Relinquished By: (1)	Date: 8/8/22	Time: 1030	Received By:	8/9/22 1430	DOD Project? NO
Relinquished By: (2)	Date	Time	Received By:		Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. NO
Relinquished By: (3)	Date	Time	Received By:		Data Deliverable Requirements: Level 2
Relinquished By: (4)	Date	Time	Received For Laboratory By:		Cooler ID:

Requested Turnaround Time and-or Special Instructions:

Temp Blank °C: 19.8 CF IR1
or Ambient [ ]

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT SM

LABEL VERIFICATION ZB

F088_COC_REF_LAB_20190411

FA97980: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA97980 **Client:** SGSAKA **Project:** 1224508

Date / Time Received: 8/9/2022 2:30:00 PM **Delivery Method:** FEDEX **Airbill #'s:** 1483 4802 5931

Therm ID: IR 1; **Therm CF:** 0.6; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (18.8);

Cooler Temps (Corrected) °C: Cooler 1: (19.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 8/9/2022 2:30:00 PM Reviewer: _____ Date: _____

5.1

5

FA97980: Chain of Custody
Page 2 of 2

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA97980
Account: SGSAKA - SGS North America, Inc
Project: 1224508

QC Batch ID: MP41111 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/24/22

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.0075	<0.50

Associated samples MP41111: FA97980-1, FA97980-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA97980
Account: SGSAKA - SGS North America, Inc
Project: 1224508

QC Batch ID: MP41111 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/24/22 08/24/22

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.8	3	93.3	85-115	2.8	3	93.3	85-115

Associated samples MP41111: FA97980-1, FA97980-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Laboratory Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224577**

Client Project: **WHADA**

Dear Morgan Brown,

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

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

Case Narrative

SGS Client: **ADEC-Air & Water Quality**
SGS Project: **1224577**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

Refer to sample receipt form for information on sample condition.

CAM6 (1224577001) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CAM6 DUP (1224577002) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CHE 3 (1224577003) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CHE-3- DUP (1224577004) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CHE-33 (1224577005) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CHE-33-DUP (1224577006) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

ANC-BACT 20-01 (1224577007) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

ANC-BACT 20-01- DUP (1224577008) PS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

CAM6 (1224577009) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

CAM6 DUP (1224577010) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

CHE 3 (1224577011) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

CHE-3- DUP (1224577012) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

CHE-33 (1224577013) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

CHE-33-DUP (1224577014) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

ANC-BACT 20-01 (1224577015) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

Case Narrative

SGS Client: **ADEC-Air & Water Quality**
SGS Project: **1224577**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

ANC-BACT 20-01- DUP (1224577016) PS

200.8 – Metals - LCS/MS recoveries for Calcium do not meet QC criteria. Sample result for this analyte is estimated.

LCS for HBN 1840910 [MXX/35329 (1677877) LCS

6020B – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

1224557003(1677875MS) (1677879) MS

6020B – Metals- MSD recoveries for Barium, Calcium and Magnesium do not meet QC criteria. The post digestions spike was successful.

1224557003(1677875MSD) (1677880) MSD

6020B – Metals- MSD recoveries for Calcium and Magnesium do not meet QC criteria. The post digestions spike was successful.

LCS for HBN 1840911 [MXX/35330 (1677897) LCS

200.8 – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.

Mercury 245.1 Total was analyzed by SGS of Orlando, FL.

1224609030(1677895MS) (1677900) MS

200.8 – Metals - LCS recovery for Calcium does not meet QC criteria. Sample result for this analyte is estimated.
200.8 - Metals - MS recovery for Sodium is outside of QC criteria. Sample concentration is 4 times greater than the spike level.

1224577001MS (1680395) MS

4500NO3-F - Nitrate/Nitrite - MS recovery for total nitrate/nitrite is outside of QC criteria. Refer to LCS for accuracy requirements.

1224577001MSD (1680396) MSD

4500NO3-F - Nitrate/Nitrite - MSD recovery for total nitrate/nitrite is outside of QC criteria. Refer to LCS for accuracy requirements.

1224577001MS (1682483) MS

4500N-D - Total Kjeldahl Nitrogen - MS/MSD RPD was outside of QC criteria. Refer to LCS/LCSD for precision requirement.
4500N-D - Total Kjeldahl Nitrogen - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

1224577001MSD (1682484) MSD

4500N-D - Total Kjeldahl Nitrogen - MS/MSD RPD was outside of QC criteria. Refer to LCS/LCSD for precision requirement.

*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 & 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
CAM6	1224577001	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CAM6 DUP	1224577002	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE 3	1224577003	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-3- DUP	1224577004	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-33	1224577005	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-33-DUP	1224577006	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
ANC-BACT 20-01	1224577007	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
ANC-BACT 20-01- DUP	1224577008	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CAM6	1224577009	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CAM6 DUP	1224577010	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE 3	1224577011	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-3- DUP	1224577012	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-33	1224577013	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
CHE-33-DUP	1224577014	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
ANC-BACT 20-01	1224577015	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)
ANC-BACT 20-01- DUP	1224577016	08/04/2022	08/04/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM 5310B	Dissolved Organic Carbon
SM21 2340B	Hardness as CaCO3 by ICP-MS W
SW6020B	Metals by ICP-MS
EP200.8	Metals in Drinking Water by ICP-MS DISSO
SM21 4500NO3-F	Nitrate/Nitrite Flow injection Pres.
SM23 4500-N D	TKN by Phenate (W)
SM21 4500P-B,E	Total Phosphorus (W)

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

Detectable Results Summary

Client Sample ID: **CAM6**
Lab Sample ID: 1224577001

	Parameter	Result	Units
Metals by ICP/MS	Calcium	21400	ug/L
	Hardness as CaCO3	67.2	mg/L
	Magnesium	3340	ug/L
Waters Department	TOC Average, Dissolved	1.29	mg/L
	Total Nitrate/Nitrite-N	0.213	mg/L

Client Sample ID: **CAM6 DUP**
Lab Sample ID: 1224577002

	Parameter	Result	Units
Metals by ICP/MS	Calcium	20400	ug/L
	Hardness as CaCO3	64.3	mg/L
	Magnesium	3240	ug/L
Waters Department	TOC Average, Dissolved	1.34	mg/L
	Total Nitrate/Nitrite-N	0.256	mg/L

Client Sample ID: **CHE 3**
Lab Sample ID: 1224577003

	Parameter	Result	Units
Metals by ICP/MS	Calcium	37000	ug/L
	Hardness as CaCO3	128	mg/L
	Magnesium	8550	ug/L
Waters Department	TOC Average, Dissolved	2.34	mg/L
	Total Nitrate/Nitrite-N	0.854	mg/L

Client Sample ID: **CHE-3- DUP**
Lab Sample ID: 1224577004

	Parameter	Result	Units
Metals by ICP/MS	Calcium	37000	ug/L
	Hardness as CaCO3	128	mg/L
	Magnesium	8730	ug/L
Waters Department	TOC Average, Dissolved	2.34	mg/L
	Total Nitrate/Nitrite-N	0.833	mg/L

Client Sample ID: **CHE-33**
Lab Sample ID: 1224577005

	Parameter	Result	Units
Metals by ICP/MS	Calcium	21900	ug/L
	Hardness as CaCO3	71.9	mg/L
	Magnesium	4190	ug/L
Waters Department	TOC Average, Dissolved	2.83	mg/L
	Total Nitrate/Nitrite-N	0.540	mg/L

Client Sample ID: **CHE-33-DUP**
Lab Sample ID: 1224577006

	Parameter	Result	Units
Metals by ICP/MS	Calcium	22100	ug/L
	Hardness as CaCO3	72.5	mg/L
	Magnesium	4210	ug/L
Waters Department	TOC Average, Dissolved	2.75	mg/L
	Total Nitrate/Nitrite-N	0.515	mg/L

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

Detectable Results Summary

Client Sample ID: **ANC-BACT 20-01**
Lab Sample ID: 1224577007

Metals by ICP/MS

Parameter	Result	Units
Calcium	18100	ug/L
Hardness as CaCO3	55.6	mg/L
Magnesium	2510	ug/L

Waters Department

Parameter	Result	Units
TOC Average, Dissolved	1.05	mg/L

Client Sample ID: **ANC-BACT 20-01- DUP**
Lab Sample ID: 1224577008

Metals by ICP/MS

Parameter	Result	Units
Calcium	18000	ug/L
Hardness as CaCO3	55.2	mg/L
Magnesium	2520	ug/L

Client Sample ID: **CAM6**
Lab Sample ID: 1224577009

Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	12.9	ug/L
Calcium	23200	ug/L
Magnesium	3040	ug/L
Manganese	9.91	ug/L
Silicon	3250	ug/L
Sodium	3290	ug/L
Zinc	45.7	ug/L

Client Sample ID: **CAM6 DUP**
Lab Sample ID: 1224577010

Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	12.5	ug/L
Calcium	23300	ug/L
Magnesium	3050	ug/L
Manganese	10.4	ug/L
Silicon	3270	ug/L
Sodium	2970	ug/L
Zinc	30.9	ug/L

Client Sample ID: **CHE 3**
Lab Sample ID: 1224577011

Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	21.4	ug/L
Calcium	42400	ug/L
Magnesium	8270	ug/L
Manganese	9.91	ug/L
Potassium	980	ug/L
Silicon	5660	ug/L
Sodium	12200	ug/L
Zinc	51.7	ug/L

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

Detectable Results Summary

Client Sample ID: **CHE-3- DUP**
Lab Sample ID: 1224577012
Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	21.5	ug/L
Calcium	42700	ug/L
Magnesium	8230	ug/L
Manganese	9.31	ug/L
Potassium	997	ug/L
Silicon	5660	ug/L
Sodium	12000	ug/L
Zinc	46.2	ug/L

Client Sample ID: **CHE-33**
Lab Sample ID: 1224577013
Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	7.36	ug/L
Calcium	25400	ug/L
Magnesium	3940	ug/L
Manganese	3.79	ug/L
Silicon	5450	ug/L
Sodium	2130	ug/L
Zinc	31.0	ug/L

Client Sample ID: **CHE-33-DUP**
Lab Sample ID: 1224577014
Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	7.03	ug/L
Calcium	24700	ug/L
Magnesium	3840	ug/L
Manganese	4.88	ug/L
Silicon	5320	ug/L
Sodium	2070	ug/L
Zinc	35.0	ug/L

Client Sample ID: **ANC-BACT 20-01**
Lab Sample ID: 1224577015
Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	10.6	ug/L
Calcium	20700	ug/L
Magnesium	2330	ug/L
Manganese	2.60	ug/L
Silicon	3010	ug/L
Sodium	1440	ug/L
Zinc	32.4	ug/L

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

Detectable Results Summary

Client Sample ID: **ANC-BACT 20-01- DUP**
Lab Sample ID: 1224577016

Dissolved Metals by ICP/MS

Parameter	Result	Units
Barium	10.7	ug/L
Calcium	20800	ug/L
Magnesium	2330	ug/L
Manganese	3.06	ug/L
Silicon	3040	ug/L
Sodium	1440	ug/L
Zinc	57.6	ug/L

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 **CAM6**

Client Sample ID: **CAM6**
Client Project ID: **WHADA**
Lab Sample ID: 1224577001
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	67.2		10.0	10.0	mg/L	5		08/24/22 09:32

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:32
Container ID: 1224577001-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	21400		1000	300	ug/L	5		08/24/22 09:32
Magnesium	3340		500	150	ug/L	5		08/24/22 09:32

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:32
Container ID: 1224577001-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CAM6**

Client Sample ID: **CAM6**
Client Project ID: **WHADA**
Lab Sample ID: 1224577001
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	1.29		1.00	0.400	mg/L	1		08/07/22 22:04

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 22:04
Container ID: 1224577001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.213		0.200	0.0500	mg/L	2		08/19/22 12:40

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:40
Container ID: 1224577001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:07

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:07
Container ID: 1224577001-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:44

Print Date: 08/31/2022 7:54:19AM

Results of **CAM6**

Client Sample ID: **CAM6**
Client Project ID: **WHADA**
Lab Sample ID: 1224577001
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:44
Container ID: 1224577001-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CAM6 DUP**

Client Sample ID: **CAM6 DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577002
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	64.3		10.0	10.0	mg/L	5		08/24/22 09:36

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:36
Container ID: 1224577002-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	20400		1000	300	ug/L	5		08/24/22 09:36
Magnesium	3240		500	150	ug/L	5		08/24/22 09:36

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:36
Container ID: 1224577002-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **CAM6 DUP**

Client Sample ID: **CAM6 DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577002
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	1.34		1.00	0.400	mg/L	1		08/07/22 22:18

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 22:18
Container ID: 1224577002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.256		0.200	0.0500	mg/L	2		08/19/22 12:45

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:45
Container ID: 1224577002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:08

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:08
Container ID: 1224577002-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:48

Print Date: 08/31/2022 7:54:19AM

Results of **CAM6 DUP**

Client Sample ID: **CAM6 DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577002
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:48
Container ID: 1224577002-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CHE 3**

Client Sample ID: **CHE 3**
Client Project ID: **WHADA**
Lab Sample ID: 1224577003
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	128		10.0	10.0	mg/L	5		08/24/22 09:40

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:40
Container ID: 1224577003-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	37000		1000	300	ug/L	5		08/24/22 09:40
Magnesium	8550		500	150	ug/L	5		08/24/22 09:40

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:40
Container ID: 1224577003-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CHE 3**

Client Sample ID: **CHE 3**
Client Project ID: **WHADA**
Lab Sample ID: 1224577003
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.34		1.00	0.400	mg/L	1		08/07/22 22:32

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 22:32
Container ID: 1224577003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.854		0.200	0.0500	mg/L	2		08/19/22 12:47

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:47
Container ID: 1224577003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:09

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:09
Container ID: 1224577003-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:49

Print Date: 08/31/2022 7:54:19AM

Results of **CHE 3**

Client Sample ID: **CHE 3**
Client Project ID: **WHADA**
Lab Sample ID: 1224577003
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:49
Container ID: 1224577003-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-3- DUP**

Client Sample ID: **CHE-3- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577004
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	128		10.0	10.0	mg/L	5		08/24/22 09:44

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:44
Container ID: 1224577004-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	37000		1000	300	ug/L	5		08/24/22 09:44
Magnesium	8730		500	150	ug/L	5		08/24/22 09:44

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:44
Container ID: 1224577004-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **CHE-3- DUP**

Client Sample ID: **CHE-3- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577004
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.34		1.00	0.400	mg/L	1		08/07/22 22:46

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 22:46
Container ID: 1224577004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.833		0.200	0.0500	mg/L	2		08/19/22 12:49

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:49
Container ID: 1224577004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:12

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:12
Container ID: 1224577004-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:53

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-3- DUP**

Client Sample ID: **CHE-3- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577004
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:53
Container ID: 1224577004-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CHE-33**

Client Sample ID: **CHE-33**
Client Project ID: **WHADA**
Lab Sample ID: 1224577005
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	71.9		10.0	10.0	mg/L	5		08/24/22 09:57

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:57
Container ID: 1224577005-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	21900		1000	300	ug/L	5		08/24/22 09:57
Magnesium	4190		500	150	ug/L	5		08/24/22 09:57

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 09:57
Container ID: 1224577005-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CHE-33**

Client Sample ID: **CHE-33**
Client Project ID: **WHADA**
Lab Sample ID: 1224577005
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.83		1.00	0.400	mg/L	1		08/07/22 23:00

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 23:00
Container ID: 1224577005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.540		0.200	0.0500	mg/L	2		08/19/22 12:51

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:51
Container ID: 1224577005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400 U		0.0400	0.0120	mg/L	1		08/25/22 19:12

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:12
Container ID: 1224577005-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00 U		1.00	0.310	mg/L	1		08/30/22 09:54

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-33**

Client Sample ID: **CHE-33**
Client Project ID: **WHADA**
Lab Sample ID: 1224577005
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:54
Container ID: 1224577005-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CHE-33-DUP**

Client Sample ID: **CHE-33-DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577006
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	72.5		10.0	10.0	mg/L	5		08/24/22 10:01

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:01
Container ID: 1224577006-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	22100		1000	300	ug/L	5		08/24/22 10:01
Magnesium	4210		500	150	ug/L	5		08/24/22 10:01

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:01
Container ID: 1224577006-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **CHE-33-DUP**

Client Sample ID: **CHE-33-DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577006
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	2.75		1.00	0.400	mg/L	1		08/07/22 23:15

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 23:15
Container ID: 1224577006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.515		0.200	0.0500	mg/L	2		08/19/22 12:52

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:52
Container ID: 1224577006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400	U	0.0400	0.0120	mg/L	1		08/25/22 19:13

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:13
Container ID: 1224577006-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		08/30/22 09:56

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-33-DUP**

Client Sample ID: **CHE-33-DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577006
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:56
Container ID: 1224577006-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **ANC-BACT 20-01**

Client Sample ID: **ANC-BACT 20-01**
Client Project ID: **WHADA**
Lab Sample ID: 1224577007
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	55.6		10.0	10.0	mg/L	5		08/24/22 10:05

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:05
Container ID: 1224577007-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	18100		1000	300	ug/L	5		08/24/22 10:05
Magnesium	2510		500	150	ug/L	5		08/24/22 10:05

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:05
Container ID: 1224577007-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **ANC-BACT 20-01**

Client Sample ID: **ANC-BACT 20-01**
Client Project ID: **WHADA**
Lab Sample ID: 1224577007
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	1.05		1.00	0.400	mg/L	1		08/07/22 23:29

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 23:29
Container ID: 1224577007-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.200 U		0.200	0.0500	mg/L	2		08/19/22 12:54

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:54
Container ID: 1224577007-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400 U		0.0400	0.0120	mg/L	1		08/25/22 19:14

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:14
Container ID: 1224577007-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00 U		1.00	0.310	mg/L	1		08/30/22 09:57

Print Date: 08/31/2022 7:54:19AM

Results of **ANC-BACT 20-01**

Client Sample ID: **ANC-BACT 20-01**
Client Project ID: **WHADA**
Lab Sample ID: 1224577007
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:57
Container ID: 1224577007-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **ANC-BACT 20-01- DUP**

Client Sample ID: **ANC-BACT 20-01- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577008
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	55.2		10.0	10.0	mg/L	5		08/24/22 10:10

Batch Information

Analytical Batch: MMS11647
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:10
Container ID: 1224577008-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	18000		1000	300	ug/L	5		08/24/22 10:10
Magnesium	2520		500	150	ug/L	5		08/24/22 10:10

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Analyst: DSD
Analytical Date/Time: 08/24/22 10:10
Container ID: 1224577008-B

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 08/08/22 11:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **ANC-BACT 20-01- DUP**

Client Sample ID: **ANC-BACT 20-01- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577008
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	1.00 U		1.00	0.400	mg/L	1		08/07/22 23:45

Batch Information

Analytical Batch: WTC3214
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 08/07/22 23:45
Container ID: 1224577008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.200 U		0.200	0.0500	mg/L	2		08/19/22 12:56

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 08/19/22 12:56
Container ID: 1224577008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0400 U		0.0400	0.0120	mg/L	1		08/25/22 19:15

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 08/25/22 19:15
Container ID: 1224577008-C

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/25/22 18:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00 U		1.00	0.310	mg/L	1		08/30/22 09:58

Print Date: 08/31/2022 7:54:19AM

Results of **ANC-BACT 20-01- DUP**

Client Sample ID: **ANC-BACT 20-01- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577008
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 08/30/22 09:58
Container ID: 1224577008-C

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 08/29/22 11:06
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **CAM6**

Client Sample ID: **CAM6**
Client Project ID: **WHADA**
Lab Sample ID: 1224577009
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:47
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:47
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:47
Barium	12.9		3.00	0.940	ug/L	1		08/14/22 19:47
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 19:47
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 19:47
Calcium	23200		500	150	ug/L	1		08/14/22 19:47
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 19:47
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 19:47
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 19:47
Iron	250	U	250	78.0	ug/L	1		08/14/22 19:47
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 19:47
Magnesium	3040		50.0	15.0	ug/L	1		08/14/22 19:47
Manganese	9.91		1.00	0.350	ug/L	1		08/14/22 19:47
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:47
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:47
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 19:47
Potassium	500	U	500	150	ug/L	1		08/14/22 19:47
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:47
Silicon	3250		1000	310	ug/L	1		08/14/22 19:47
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:47
Sodium	3290		500	150	ug/L	1		08/14/22 19:47
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:47
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:47
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 19:47
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:47
Zinc	45.7		10.0	3.10	ug/L	1		08/14/22 19:47

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 19:47
Container ID: 1224577009-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CAM6 DUP**

Client Sample ID: **CAM6 DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577010
Lab Project ID: 1224577

Collection Date: 08/04/22 12:00
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:50
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:50
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:50
Barium	12.5		3.00	0.940	ug/L	1		08/14/22 19:50
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 19:50
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 19:50
Calcium	23300		500	150	ug/L	1		08/14/22 19:50
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 19:50
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 19:50
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 19:50
Iron	250	U	250	78.0	ug/L	1		08/14/22 19:50
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 19:50
Magnesium	3050		50.0	15.0	ug/L	1		08/14/22 19:50
Manganese	10.4		1.00	0.350	ug/L	1		08/14/22 19:50
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:50
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:50
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 19:50
Potassium	500	U	500	150	ug/L	1		08/14/22 19:50
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:50
Silicon	3270		1000	310	ug/L	1		08/14/22 19:50
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:50
Sodium	2970		500	150	ug/L	1		08/14/22 19:50
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:50
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:50
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 19:50
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:50
Zinc	30.9		10.0	3.10	ug/L	1		08/14/22 19:50

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 19:50
Container ID: 1224577010-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CHE 3**

Client Sample ID: **CHE 3**
Client Project ID: **WHADA**
Lab Sample ID: 1224577011
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:52
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:52
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:52
Barium	21.4		3.00	0.940	ug/L	1		08/14/22 19:52
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 19:52
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 19:52
Calcium	42400		500	150	ug/L	1		08/14/22 19:52
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 19:52
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 19:52
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 19:52
Iron	250	U	250	78.0	ug/L	1		08/14/22 19:52
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 19:52
Magnesium	8270		50.0	15.0	ug/L	1		08/14/22 19:52
Manganese	9.91		1.00	0.350	ug/L	1		08/14/22 19:52
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:52
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 19:52
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 19:52
Potassium	980		500	150	ug/L	1		08/14/22 19:52
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 19:52
Silicon	5660		1000	310	ug/L	1		08/14/22 19:52
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:52
Sodium	12200		500	150	ug/L	1		08/14/22 19:52
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:52
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 19:52
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 19:52
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 19:52
Zinc	51.7		10.0	3.10	ug/L	1		08/14/22 19:52

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 19:52
Container ID: 1224577011-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-3- DUP**

Client Sample ID: **CHE-3- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577012
Lab Project ID: 1224577

Collection Date: 08/04/22 11:15
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:00
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:00
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:00
Barium	21.5		3.00	0.940	ug/L	1		08/14/22 20:00
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 20:00
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 20:00
Calcium	42700		500	150	ug/L	1		08/14/22 20:00
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 20:00
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 20:00
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 20:00
Iron	250	U	250	78.0	ug/L	1		08/14/22 20:00
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 20:00
Magnesium	8230		50.0	15.0	ug/L	1		08/14/22 20:00
Manganese	9.31		1.00	0.350	ug/L	1		08/14/22 20:00
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:00
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:00
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 20:00
Potassium	997		500	150	ug/L	1		08/14/22 20:00
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:00
Silicon	5660		1000	310	ug/L	1		08/14/22 20:00
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:00
Sodium	12000		500	150	ug/L	1		08/14/22 20:00
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:00
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:00
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 20:00
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:00
Zinc	46.2		10.0	3.10	ug/L	1		08/14/22 20:00

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 20:00
Container ID: 1224577012-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-33**

Client Sample ID: **CHE-33**
Client Project ID: **WHADA**
Lab Sample ID: 1224577013
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:03
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:03
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:03
Barium	7.36		3.00	0.940	ug/L	1		08/14/22 20:03
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 20:03
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 20:03
Calcium	25400		500	150	ug/L	1		08/14/22 20:03
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 20:03
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 20:03
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 20:03
Iron	250	U	250	78.0	ug/L	1		08/14/22 20:03
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 20:03
Magnesium	3940		50.0	15.0	ug/L	1		08/14/22 20:03
Manganese	3.79		1.00	0.350	ug/L	1		08/14/22 20:03
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:03
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:03
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 20:03
Potassium	500	U	500	150	ug/L	1		08/14/22 20:03
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:03
Silicon	5450		1000	310	ug/L	1		08/14/22 20:03
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:03
Sodium	2130		500	150	ug/L	1		08/14/22 20:03
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:03
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:03
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 20:03
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:03
Zinc	31.0		10.0	3.10	ug/L	1		08/14/22 20:03

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 20:03
Container ID: 1224577013-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **CHE-33-DUP**

Client Sample ID: **CHE-33-DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577014
Lab Project ID: 1224577

Collection Date: 08/04/22 09:40
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:06
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:06
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:06
Barium	7.03		3.00	0.940	ug/L	1		08/14/22 20:06
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 20:06
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 20:06
Calcium	24700		500	150	ug/L	1		08/14/22 20:06
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 20:06
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 20:06
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 20:06
Iron	250	U	250	78.0	ug/L	1		08/14/22 20:06
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 20:06
Magnesium	3840		50.0	15.0	ug/L	1		08/14/22 20:06
Manganese	4.88		1.00	0.350	ug/L	1		08/14/22 20:06
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:06
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:06
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 20:06
Potassium	500	U	500	150	ug/L	1		08/14/22 20:06
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:06
Silicon	5320		1000	310	ug/L	1		08/14/22 20:06
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:06
Sodium	2070		500	150	ug/L	1		08/14/22 20:06
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:06
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:06
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 20:06
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:06
Zinc	35.0		10.0	3.10	ug/L	1		08/14/22 20:06

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 20:06
Container ID: 1224577014-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **ANC-BACT 20-01**

Client Sample ID: **ANC-BACT 20-01**
Client Project ID: **WHADA**
Lab Sample ID: 1224577015
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:08
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:08
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:08
Barium	10.6		3.00	0.940	ug/L	1		08/14/22 20:08
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 20:08
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 20:08
Calcium	20700		500	150	ug/L	1		08/14/22 20:08
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 20:08
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 20:08
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 20:08
Iron	250	U	250	78.0	ug/L	1		08/14/22 20:08
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 20:08
Magnesium	2330		50.0	15.0	ug/L	1		08/14/22 20:08
Manganese	2.60		1.00	0.350	ug/L	1		08/14/22 20:08
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:08
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:08
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 20:08
Potassium	500	U	500	150	ug/L	1		08/14/22 20:08
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:08
Silicon	3010		1000	310	ug/L	1		08/14/22 20:08
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:08
Sodium	1440		500	150	ug/L	1		08/14/22 20:08
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:08
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:08
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 20:08
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:08
Zinc	32.4		10.0	3.10	ug/L	1		08/14/22 20:08

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 20:08
Container ID: 1224577015-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Results of **ANC-BACT 20-01- DUP**

Client Sample ID: **ANC-BACT 20-01- DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224577016
Lab Project ID: 1224577

Collection Date: 08/04/22 10:25
Received Date: 08/04/22 12:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:11
Antimony	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:11
Arsenic	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:11
Barium	10.7		3.00	0.940	ug/L	1		08/14/22 20:11
Beryllium	0.400	U	0.400	0.130	ug/L	1		08/14/22 20:11
Cadmium	0.500	U	0.500	0.150	ug/L	1		08/14/22 20:11
Calcium	20800		500	150	ug/L	1		08/14/22 20:11
Chromium	5.00	U	5.00	2.50	ug/L	1		08/14/22 20:11
Cobalt	4.00	U	4.00	1.20	ug/L	1		08/14/22 20:11
Copper	3.00	U	3.00	1.00	ug/L	1		08/14/22 20:11
Iron	250	U	250	78.0	ug/L	1		08/14/22 20:11
Lead	2.00	U	2.00	0.500	ug/L	1		08/14/22 20:11
Magnesium	2330		50.0	15.0	ug/L	1		08/14/22 20:11
Manganese	3.06		1.00	0.350	ug/L	1		08/14/22 20:11
Molybdenum	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:11
Nickel	2.00	U	2.00	0.620	ug/L	1		08/14/22 20:11
Phosphorus	200	U	200	62.0	ug/L	1		08/14/22 20:11
Potassium	500	U	500	150	ug/L	1		08/14/22 20:11
Selenium	5.00	U	5.00	1.50	ug/L	1		08/14/22 20:11
Silicon	3040		1000	310	ug/L	1		08/14/22 20:11
Silver	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:11
Sodium	1440		500	150	ug/L	1		08/14/22 20:11
Thallium	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:11
Tin	1.00	U	1.00	0.310	ug/L	1		08/14/22 20:11
Titanium	6.25	U	6.25	3.13	ug/L	1		08/14/22 20:11
Vanadium	20.0	U	20.0	6.20	ug/L	1		08/14/22 20:11
Zinc	57.6		10.0	3.10	ug/L	1		08/14/22 20:11

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 08/14/22 20:11
Container ID: 1224577016-B

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 08/08/22 10:26
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 08/31/2022 7:54:19AM

Method Blank

Blank ID: MB for HBN 1840910 [MXX/35329]
Blank Lab ID: 1677876

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SW6020B**

Parameter	Results	LOQ/CL	DL	Units
Calcium	500U	1000	300	ug/L
Magnesium	250U	500	150	ug/L

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Instrument: Perkin Elmer Nexlon P5
Analyst: DSD
Analytical Date/Time: 8/24/2022 8:16:00AM

Prep Batch: MXX35329
Prep Method: SW3010A
Prep Date/Time: 8/8/2022 11:33:43AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1224577 [MXX35329]
Blank Spike Lab ID: 1677877
Date Analyzed: 08/24/2022 08:20

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SW6020B**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)		CL
Calcium	5000	6060	121	*	(87-118)
Magnesium	5000	5540	111		(83-118)

Batch Information

Analytical Batch: **MMS11647**
Analytical Method: **SW6020B**
Instrument: **Perkin Elmer Nexion P5**
Analyst: **DSD**

Prep Batch: **MXX35329**
Prep Method: **SW3010A**
Prep Date/Time: **08/08/2022 11:33**
Spike Init Wt./Vol.: 5000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1677875
MS Sample ID: 1677879 MS
MSD Sample ID: 1677880 MSD

Analysis Date: 08/24/2022 8:24
Analysis Date: 08/24/2022 8:28
Analysis Date: 08/24/2022 8:32
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SW6020B**

		Matrix Spike (ug/L)				Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		RPD (%)	RPD CL
Calcium	10100	5000	16300	124	*	5000	16100	119	*	1.70	(< 20)
Magnesium	6240	5000	12600	127	*	5000	12200	119	*	3.29	(< 20)

CL
87-118
83-118

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Instrument: Perkin Elmer NexIon P5
Analyst: DSD
Analytical Date/Time: 8/24/2022 8:28:00AM

Prep Batch: MXX35329
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 8/8/2022 11:33:43AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/31/2022 7:54:29AM

Bench Spike Summary

Original Sample ID: 1677875
MS Sample ID: 1677878 BND
MSD Sample ID:

Analysis Date: 08/24/2022 8:24
Analysis Date: 08/24/2022 8:37
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SW6020B**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Calcium	10100	25000	38200	112				75-125		
Magnesium	6240	25000	33900	111				75-125		

Batch Information

Analytical Batch: MMS11647
Analytical Method: SW6020B
Instrument: Perkin Elmer Nexion P5
Analyst: DSD
Analytical Date/Time: 8/24/2022 8:37:00AM

Prep Batch: MXX35329
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 8/8/2022 11:33:43AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

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

Method Blank

Blank ID: MB for HBN 1840911 [MXX/35330]
Blank Lab ID: 1677896

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577009, 1224577010, 1224577011, 1224577012, 1224577013, 1224577014, 1224577015, 1224577016

Results by **EP200.8**

Parameter	Results	LOQ/CL	DL	Units
Aluminum	10.0U	20.0	6.20	ug/L
Antimony	0.500U	1.00	0.310	ug/L
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Beryllium	0.200U	0.400	0.130	ug/L
Cadmium	0.250U	0.500	0.150	ug/L
Calcium	250U	500	150	ug/L
Chromium	2.50U	5.00	2.50	ug/L
Cobalt	2.00U	4.00	1.20	ug/L
Copper	1.50U	3.00	1.00	ug/L
Iron	125U	250	78.0	ug/L
Lead	1.00U	2.00	0.500	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Manganese	0.500U	1.00	0.350	ug/L
Molybdenum	1.00U	2.00	0.620	ug/L
Nickel	1.00U	2.00	0.620	ug/L
Phosphorus	100U	200	62.0	ug/L
Potassium	250U	500	150	ug/L
Selenium	2.50U	5.00	1.50	ug/L
Silicon	500U	1000	310	ug/L
Silver	0.500U	1.00	0.310	ug/L
Sodium	227J	500	150	ug/L
Thallium	0.500U	1.00	0.310	ug/L
Tin	0.500U	1.00	0.310	ug/L
Titanium	12.5U	25.0	7.75	ug/L
Vanadium	10.0U	20.0	6.20	ug/L
Zinc	3.46J	10.0	3.10	ug/L

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 8/14/2022 7:28:28PM

Prep Batch: MXX35330
Prep Method: E200.2
Prep Date/Time: 8/8/2022 10:26:23AM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 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 1224577 [MXX35330]
Blank Spike Lab ID: 1677897
Date Analyzed: 08/14/2022 19:31

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577009, 1224577010, 1224577011, 1224577012, 1224577013, 1224577014, 1224577015, 1224577016

Results by **EP200.8**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)		CL
Aluminum	1000	918	92		(85-115)
Antimony	1000	964	96		(85-115)
Arsenic	1000	942	94		(85-115)
Barium	1000	924	92		(85-115)
Beryllium	100	94.3	94		(85-115)
Cadmium	100	93.7	94		(85-115)
Calcium	5000	3520	70	*	(85-115)
Chromium	400	375	94		(85-115)
Cobalt	500	484	97		(85-115)
Copper	1000	968	97		(85-115)
Iron	5000	4760	95		(85-115)
Lead	1000	961	96		(85-115)
Magnesium	5000	4850	97		(85-115)
Manganese	500	473	95		(85-115)
Molybdenum	400	367	92		(85-115)
Nickel	1000	968	97		(85-115)
Phosphorus	500	457	91		(85-115)
Potassium	5000	4800	96		(85-115)
Selenium	1000	957	96		(85-115)
Silicon	10000	9460	95		(85-115)
Silver	100	95.5	96		(85-115)
Sodium	5000	4930	99		(85-115)
Thallium	10	9.37	94		(85-115)
Tin	100	93.6	94		(85-115)
Titanium	100	92.9	93		(85-115)
Vanadium	200	187	93		(85-115)
Zinc	1000	954	95		(85-115)

Batch Information

Analytical Batch: **MMS11635**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **HGS**

Prep Batch: **MXX35330**
Prep Method: **E200.2**
Prep Date/Time: **08/08/2022 10:26**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 08/31/2022 7:54:33AM

Matrix Spike Summary

Original Sample ID: 1677895
MS Sample ID: 1677900 MS
MSD Sample ID:

Analysis Date: 08/14/2022 19:41
Analysis Date: 08/14/2022 19:44
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577009, 1224577010, 1224577011, 1224577012, 1224577013, 1224577014, 1224577015, 1224577016

Results by **EP200.8**

		Matrix Spike (ug/L)				Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	442	1000	1470	103					70-130		
Antimony	11.6	1000	1010	100					70-130		
Arsenic	179	1000	1160	98					70-130		
Barium	41.0	1000	1000	96					70-130		
Beryllium	0.132J	100	96.8	97					70-130		
Cadmium	0.250U	100	95.5	96					70-130		
Calcium	9460	5000	12800	67	*				70-130		
Chromium	2.50U	400	388	97					70-130		
Cobalt	2.00U	500	492	98					70-130		
Copper	16.3	1000	977	96					70-130		
Iron	342	5000	5210	97					70-130		
Lead	1.37J	1000	969	97					70-130		
Magnesium	324	5000	5270	99					70-130		
Manganese	12.1	500	493	96					70-130		
Molybdenum	25.5	400	420	99					70-130		
Nickel	2.62	1000	977	98					70-130		
Phosphorus	95.3J	500	564	94					70-130		
Potassium	1010	5000	5820	96					70-130		
Selenium	34.0	1000	987	95					70-130		
Silicon	4840	10000	14600	98					70-130		
Silver	0.500U	100	93.4	93					70-130		
Sodium	11700J	5000	11300J	-8	*				70-130		
Thallium	0.500U	10.0	9.18	92					70-130		
Tin	0.500U	100	95.9	96					70-130		
Titanium	8.32J	100	104	95					70-130		
Vanadium	117	200	311	97					70-130		
Zinc	53.8	1000	1020	97					70-130		

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

Matrix Spike Summary

Original Sample ID: 1677895
MS Sample ID: 1677900 MS
MSD Sample ID:

Analysis Date: 08/14/2022 19:41
Analysis Date: 08/14/2022 19:44
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577009, 1224577010, 1224577011, 1224577012, 1224577013, 1224577014, 1224577015, 1224577016

Results by **EP200.8**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: MMS11635
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 8/14/2022 7:44:00PM

Prep Batch: MXX35330
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 8/8/2022 10:26:23AM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Analytical Batch: MMS11639
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 8/18/2022 9:17:00PM

Prep Batch: MXX35330
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 8/8/2022 10:26:23AM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 08/31/2022 7:54:35AM

Method Blank

Blank ID: MB for HBN 1841807 (WFI/3000)
Blank Lab ID: 1680470

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 2:08:13PM

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

Method Blank

Blank ID: MB for HBN 1841807 (WFI/3000)
Blank Lab ID: 1680476

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 1:22:43PM

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

Method Blank

Blank ID: MB for HBN 1841807 (WFI/3000)
Blank Lab ID: 1680482

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 12:37:13PM

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

Method Blank

Blank ID: MB for HBN 1841807 (WFI/3000)
Blank Lab ID: 1680489

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 11:49:58AM

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 1224577 [WFI3000]
Blank Spike Lab ID: 1680472
Date Analyzed: 08/19/2022 14:06

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.47	99	(70-130)
Nitrite-N	2.5	2.54	102	(90-110)
Total Nitrate/Nitrite-N	5	5.01	100	(90-110)

Batch Information

Analytical Batch: **WFI3000**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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 1224577 [WFI3000]
Blank Spike Lab ID: 1680478
Date Analyzed: 08/19/2022 13:20

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.47	99	(70-130)
Nitrite-N	2.5	2.42	97	(90-110)
Total Nitrate/Nitrite-N	5	4.89	98	(90-110)

Batch Information

Analytical Batch: **WFI3000**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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 1224577 [WFI3000]
Blank Spike Lab ID: 1680484
Date Analyzed: 08/19/2022 12:35

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.83	113	(70-130)
Nitrite-N	2.5	2.52	101	(90-110)
Total Nitrate/Nitrite-N	5	5.35	107	(90-110)

Batch Information

Analytical Batch: **WFI3000**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

Print Date: 08/31/2022 7:54:39AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1224577 [WFI3000]
Blank Spike Lab ID: 1680491
Date Analyzed: 08/19/2022 11:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.58	103	(70-130)
Nitrite-N	2.5	2.48	99	(90-110)
Total Nitrate/Nitrite-N	5	5.06	101	(90-110)

Batch Information

Analytical Batch: **WFI3000**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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

Matrix Spike Summary

Original Sample ID: 1224417001
MS Sample ID: 1680393 MS
MSD Sample ID: 1680394 MSD

QC for Samples: 1224577001

Analysis Date: 08/19/2022 11:55
Analysis Date: 08/19/2022 11:56
Analysis Date: 08/19/2022 11:58
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	1.67	5.00	7.01	107	5.00	6.81	103	90-110	2.90	(< 25)

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 11:56:00AM

Print Date: 08/31/2022 7:54:41AM

Matrix Spike Summary

Original Sample ID: 1224577001
MS Sample ID: 1680395 MS
MSD Sample ID: 1680396 MSD

Analysis Date: 08/19/2022 12:40
Analysis Date: 08/19/2022 12:42
Analysis Date: 08/19/2022 12:44
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.213	5.00	5.9	114 *	5.00	5.98	115 *	90-110	1.40	(< 25)

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 12:42:00PM

Print Date: 08/31/2022 7:54:41AM

Matrix Spike Summary

Original Sample ID: 1224676001
MS Sample ID: 1680397 MS
MSD Sample ID: 1680398 MSD

Analysis Date: 08/19/2022 13:26
Analysis Date: 08/19/2022 13:27
Analysis Date: 08/19/2022 13:29
Matrix: Drinking Water

QC for Samples: 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.291	5.00	5.61	106	5.00	5.71	108	90-110	1.90	(< 25)

Batch Information

Analytical Batch: WFI3000
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 8/19/2022 1:27:00PM

Print Date: 08/31/2022 7:54:41AM

Method Blank

Blank ID: MB for HBN 1842196 [WXX/14380]
Blank Lab ID: 1682085

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500P-B,E**

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0200U	0.0400	0.0120	mg/L

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 8/25/2022 7:00:23PM

Prep Batch: WXX14380
Prep Method: SM21 4500P-B,E
Prep Date/Time: 8/25/2022 6:40:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1224577 [WXX14380]
Blank Spike Lab ID: 1682086
Date Analyzed: 08/25/2022 19:01

Spike Duplicate ID: LCSD for HBN 1224577 [WXX14380]
Spike Duplicate Lab ID: 1682087
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500P-B,E**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.192	96	0.2	0.191	96	(75-125)	0.57	(< 25)

Batch Information

Analytical Batch: **WDA5291**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **IGK**

Prep Batch: **WXX14380**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **08/25/2022 18:40**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1224508002
MS Sample ID: 1682088 MS
MSD Sample ID: 1682089 MSD

Analysis Date: 08/25/2022 19:04
Analysis Date: 08/25/2022 19:05
Analysis Date: 08/25/2022 19:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM21 4500P-B,E**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0400U	0.200	.193	97	0.200	0.201	101	75-125	4.20	(< 25)

Batch Information

Analytical Batch: WDA5291
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 8/25/2022 7:05:18PM

Prep Batch: WXX14380
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 8/25/2022 6:40:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/31/2022 7:54:50AM

Method Blank

Blank ID: MB for HBN 1842383 [WXX/14387]
Blank Lab ID: 1682480

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM23 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.375J	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 8/30/2022 9:37:00AM

Prep Batch: WXX14387
Prep Method: METHOD
Prep Date/Time: 8/29/2022 11:06:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1224577 [WXX14387]
Blank Spike Lab ID: 1682481
Date Analyzed: 08/30/2022 09:39

Spike Duplicate ID: LCSD for HBN 1224577 [WXX14387]
Spike Duplicate Lab ID: 1682482
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM23 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.58	114	4	3.97	99	(75-125)	14.10	(< 25)

Batch Information

Analytical Batch: **WDA5294**
Analytical Method: **SM23 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **MEB**

Prep Batch: **WXX14387**
Prep Method: **METHOD**
Prep Date/Time: **08/29/2022 11:06**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1224577001
MS Sample ID: 1682483 MS
MSD Sample ID: 1682484 MSD

Analysis Date: 08/30/2022 9:44
Analysis Date: 08/30/2022 9:45
Analysis Date: 08/30/2022 9:47
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224577001, 1224577002, 1224577003, 1224577004, 1224577005, 1224577006, 1224577007, 1224577008

Results by **SM23 4500-N D**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)		RPD CL
Total Kjeldahl Nitrogen	1.00U	4.00	2.87	72	*	4.00	4.34	109	75-125	40.70	*	(< 25)

Batch Information

Analytical Batch: WDA5294
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 8/30/2022 9:45:00AM

Prep Batch: WXX14387
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 8/29/2022 11:06:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/31/2022 7:54:55AM

1224577

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

Profile# 385380

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

Page 1 of 1

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown — PHONE #: 907-451-2141

PROJECT NAME: WHADA — PROJECT/ PWSID/ PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown — E-MAIL: Morgan.Brown@alaska.gov

INVOICE TO: ADEC — QUOTE #: — P.O. #:

SECTION 2

RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	PRESERVATIVE: Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				REMARKS/ LOC ID
							SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
1AE 9AB	CAM 6	08/04/22	12:00PM	SW	5	G			1	1	1	1	1				
8AE 10AB	CAM 6-DUP	08/04/22	12:00PM	SW	5	G			1	1	1	1	1				
3AE 11AB	CHS 3	08/04/22	11:15AM	SW	5	G			1	1	1	1	1				
4AE 12AB	CHS-3-Dup	08/04/22	11:15AM	SW	5	G			1	1	1	1	1				
5AE 13AB	CHS-33	08/04/22	9:40AM	SW	5	G			1	1	1	1	1				
6AE 14AB	CHS-33 DUP	08/04/22	9:40AM	SW	5	G			1	1	1	1	1				
7AE 15AB	ANCBack 20-01	08/04/22	10:25AM	SW	5	G			1	1	1	1	1				
8AE 16AB	Anc-back-20-01-dup	8/4/22	10:25AM	SW	5	G			1	1	1	1	1				

SECTION 5

	DATE	TIME	
RELINQUISHED BY: (1) Avery Oleksiak	8/4/22	12:27 PM	RECEIVED BY:
RELINQUISHED BY:(2)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(3)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(4)	DATE 8/4/22	TIME 12:30	RECEIVED FOR LABORATORY BY:

SECTION 4

DOD Project?

COC ID:

Cooler ID:

DATA DELIVERABLE REQUIREMENTS:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 3.3 OR AMBIENT [ ] PGZ (See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE) INTACT BROKEN ABSENT (See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #:	1224577	1224577

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
1224577001-A	HNO3 to pH < 2	OK
1224577001-B	HNO3 to pH < 2	OK
1224577001-C	H2SO4 to pH < 2	OK
1224577001-D	No Preservative Required	OK
1224577001-E	HCL to pH < 2	OK
1224577002-A	HNO3 to pH < 2	OK
1224577002-B	HNO3 to pH < 2	OK
1224577002-C	H2SO4 to pH < 2	OK
1224577002-D	No Preservative Required	OK
1224577002-E	HCL to pH < 2	OK
1224577003-A	HNO3 to pH < 2	OK
1224577003-B	HNO3 to pH < 2	OK
1224577003-C	H2SO4 to pH < 2	OK
1224577003-D	No Preservative Required	OK
1224577003-E	HCL to pH < 2	OK
1224577004-A	HNO3 to pH < 2	OK
1224577004-B	HNO3 to pH < 2	OK
1224577004-C	H2SO4 to pH < 2	OK
1224577004-D	No Preservative Required	OK
1224577004-E	HCL to pH < 2	OK
1224577005-A	HNO3 to pH < 2	OK
1224577005-B	HNO3 to pH < 2	OK
1224577005-C	H2SO4 to pH < 2	OK
1224577005-D	No Preservative Required	OK
1224577005-E	HCL to pH < 2	OK
1224577006-A	HNO3 to pH < 2	OK
1224577006-B	HNO3 to pH < 2	OK
1224577006-C	H2SO4 to pH < 2	OK
1224577006-D	No Preservative Required	OK
1224577006-E	HCL to pH < 2	OK
1224577007-A	HNO3 to pH < 2	OK
1224577007-B	HNO3 to pH < 2	OK
1224577007-C	H2SO4 to pH < 2	OK
1224577007-D	No Preservative Required	OK
1224577007-E	HCL to pH < 2	OK
1224577008-A	HNO3 to pH < 2	OK
1224577008-B	HNO3 to pH < 2	OK
1224577008-C	H2SO4 to pH < 2	OK
1224577008-D	No Preservative Required	OK
1224577008-E	HCL to pH < 2	OK
1224577009-A	No Preservative Required	OK
1224577009-B	HNO3 to pH < 2	OK
1224577010-A	No Preservative Required	OK
1224577010-B	HNO3 to pH < 2	OK
1224577011-A	No Preservative Required	OK
1224577011-B	HNO3 to pH < 2	OK
1224577012-A	No Preservative Required	OK
1224577012-B	HNO3 to pH < 2	OK
1224577013-A	No Preservative Required	OK
1224577013-B	HNO3 to pH < 2	OK
1224577014-A	No Preservative Required	OK
1224577014-B	HNO3 to pH < 2	OK
1224577015-A	No Preservative Required	OK
1224577015-B	HNO3 to pH < 2	OK
1224577016-A	No Preservative Required	OK
1224577016-B	HNO3 to pH < 2	OK

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

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.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America, Inc

1224577

SGS Job Number: FA97971

Sampling Date: 08/04/22

Report to:

SGS North America, Inc
200 W Potter Dr
Anchorage, AK 99518
julie.shumway@sgs.com

ATTN: Julie Shumway

Total number of pages in report: **23**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

Sections: 1 2 3 4 5 6

Table of Contents

-1-

Sample Summary

SGS North America, Inc

1224577

Job No: FA97971

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA97971-1	08/04/22	12:00		08/09/22	AQ	Water	CAM6
FA97971-2	08/04/22	12:00		08/09/22	AQ	Water	CAM6 DUP
FA97971-3	08/04/22	11:15		08/09/22	AQ	Water	CHE 3
FA97971-4	08/04/22	11:15		08/09/22	AQ	Water	CHE-3-DUP
FA97971-5	08/04/22	09:40		08/09/22	AQ	Water	CHE-33
FA97971-6	08/04/22	09:40		08/09/22	AQ	Water	CHE-33-DUP
FA97971-7	08/04/22	10:25		08/09/22	AQ	Water	ANC-BACT 20-01
FA97971-8	08/04/22	10:25		08/09/22	AQ	Water	ANC-BACT 20-01-DUP

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc **Job No:** FA97971

Site: 1224577 **Report Date:** 8/17/2022 9:22:22 AM

On 08/09/2022, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA97971 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method EPA 245.1

Matrix: AQ **Batch ID:** MP41079

Sample(s) FA97529-5DUP, FA97529-5MS, FA97529-5MSD, FA97529-5SDL were used as the QC samples for metals.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FA97971
Account: SGS North America, Inc
Project: 1224577
Collected: 08/04/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

FA97971-1 CAM6

No hits reported in this sample.

FA97971-2 CAM6 DUP

No hits reported in this sample.

FA97971-3 CHE 3

No hits reported in this sample.

FA97971-4 CHE-3-DUP

No hits reported in this sample.

FA97971-5 CHE-33

No hits reported in this sample.

FA97971-6 CHE-33-DUP

No hits reported in this sample.

FA97971-7 ANC-BACT 20-01

No hits reported in this sample.

FA97971-8 ANC-BACT 20-01-DUP

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CAM6		
Lab Sample ID:	FA97971-1	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CAM6 DUP		
Lab Sample ID:	FA97971-2	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CHE 3		
Lab Sample ID:	FA97971-3	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CHE-3-DUP		
Lab Sample ID:	FA97971-4	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID: CHE-33
Lab Sample ID: FA97971-5
Matrix: AQ - Water
Project: 1224577

Date Sampled: 08/04/22
Date Received: 08/09/22
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CHE-33-DUP		
Lab Sample ID:	FA97971-6	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	ANC-BACT 20-01		
Lab Sample ID:	FA97971-7	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Report of Analysis

Client Sample ID:	ANC-BACT 20-01-DUP		
Lab Sample ID:	FA97971-8	**Date Sampled:**	08/04/22
Matrix:	AQ - Water	**Date Received:**	08/09/22
		Percent Solids:	n/a
Project:	1224577		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/16/22	08/16/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18846
(2) Prep QC Batch: MP41079

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA97971

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	SGS Orlando, FL
CONTACT:	Julie Shumway	PHONE NO:	(907) 562-2343
PROJECT NAME:	1224577	PWSID#:	
		NPDL#:	
REPORTS TO:	Julie Shumway	E-MAIL:	Julie.Shumway@sgs.com; Env.Alaska.RefLabTeam@sgs.com
INVOICE TO:	SGS - Alaska	QUOTE #:	
	env.alaska.accounting@sgs.com	P.O. #:	1224577

Additional Comments: All soils report out in dry weight unless

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	# CONTAINERS	Preserv-ative Used: HNO3	TYPE C = COMP G = GRAB MI = Multi Incre-mental Soils	Mercury 245.1, Total				MS	MSD	SGS lab #	Location ID
1	CAM6	08/04/2022	12:00:00	Water	1			X						1224577001	
2	CAM6 DUP	08/04/2022	12:00:00	Water	1			X						1224577002	
3	CHE 3	08/04/2022	11:15:00	Water	1			X						1224577003	
4	CHE-3- DUP	08/04/2022	11:15:00	Water	1			X						1224577004	
5	CHE-33	08/04/2022	09:40:00	Water	1			X						1224577005	
6	CHE-33-DUP	08/04/2022	09:40:00	Water	1			X						1224577006	
7	ANC-BACT 20-01	08/04/2022	10:25:00	Water	1			X						1224577007	
8	ANC-BACT 20-01- DUP	08/04/2022	10:25:00	Water	1			X						1224577008	

	Date	Time	Received By:	
Relinquished By: (1)	8/8/22	1030	Received By:	8/9/22 1430
Relinquished By: (2)	Date	Time	Received By:	
Relinquished By: (3)	Date	Time	Received By:	
Relinquished By: (4)	Date	Time	Received For Laboratory By:	

DOD Project? No
Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. No
Data Deliverable Requirements: Level 2
Cooler ID:
Requested Turnaround Time and-or Special Instructions:
Temp Blank °C: 3.6 GM
or Ambient [ ]
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT SM

LABEL VERIFICATION SM

F088_COC_REF_LAB_20190411

FA97971: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA97971 **Client:** SGSAKA **Project:** 1224577

Date / Time Received: 8/9/2022 2:30:00 PM **Delivery Method:** FEDEX **Airbill #'s:** 1483 4802 5953

Therm ID: IR 1; **Therm CF:** 0.6; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.2);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 8/9/2022 2:30:00 PM Reviewer: _____ Date: _____

FA97971: Chain of Custody
Page 2 of 2

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA97971
Account: SGSAKA - SGS North America, Inc
Project: 1224577

QC Batch ID: MP41079 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/16/22

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	-0.0020	<0.50

Associated samples MP41079: FA97971-1, FA97971-2, FA97971-3, FA97971-4, FA97971-5, FA97971-6, FA97971-7, FA97971-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA97971
Account: SGSAKA - SGS North America, Inc
Project: 1224577

QC Batch ID: MP41079
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 08/16/22 08/16/22

Metal	FA97529-5 Original	DUP	RPD	QC Limits	FA97529-5 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	2.7	3	90.0	70-130

Associated samples MP41079: FA97971-1, FA97971-2, FA97971-3, FA97971-4, FA97971-5, FA97971-6, FA97971-7, FA97971-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA97971
Account: SGSAKA - SGS North America, Inc
Project: 1224577

QC Batch ID: MP41079 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/16/22

Metal	FA97529-5 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.7	3	90.0	0.0	

Associated samples MP41079: FA97971-1, FA97971-2, FA97971-3, FA97971-4, FA97971-5, FA97971-6, FA97971-7, FA97971-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA97971
Account: SGSAKA - SGS North America, Inc
Project: 1224577

QC Batch ID: MP41079 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/16/22

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	85-115

Associated samples MP41079: FA97971-1, FA97971-2, FA97971-3, FA97971-4, FA97971-5, FA97971-6, FA97971-7, FA97971-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA97971
Account: SGSAKA - SGS North America, Inc
Project: 1224577

QC Batch ID: MP41079 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/16/22

Metal	FA97529-5 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP41079: FA97971-1, FA97971-2, FA97971-3, FA97971-4, FA97971-5, FA97971-6, FA97971-7, FA97971-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Laboratory Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224680**

Client Project: **WHADA**

Dear Morgan Brown,

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: **ADEC-Air & Water Quality**
SGS Project: **1224680**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

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 & 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
WA04	1224680001	08/09/2022	08/09/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM21 9223B	E Coli LT2 (Colilert Quant)
SM21 9222D	Fecal Coliform (MF)

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

Detectable Results Summary

Client Sample ID: **WA04**
Lab Sample ID: 1224680001

Microbiology Laboratory

Parameter	Result	Units
E. Coli	921	MPN/100mL
Fecal Coliform	347	col/100mL

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 **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224680001
Lab Project ID: 1224680

Collection Date: 08/09/22 10:30
Received Date: 08/09/22 14:02
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	347		1.67	1.67	col/100mL	1		08/09/22 14:47

Batch Information

Analytical Batch: BTF19764
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/09/22 14:47
Container ID: 1224680001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	921		1	1	MPN/100m	1		08/09/22 17:52

Batch Information

Analytical Batch: BTF19763
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/09/22 17:52
Container ID: 1224680001-B

Print Date: 08/11/2022 2:33:33PM

Method Blank

Blank ID: MB for HBN 1841086 [BTF/19763]
Blank Lab ID: 1678253

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224680001

Results by **SM21 9223B**

Parameter	Results	LOQ/CL	DL	Units
E. Coli	1U	1	1	MPN/100m

Batch Information

Analytical Batch: BTF19763
Analytical Method: SM21 9223B
Instrument:
Analyst: M.A
Analytical Date/Time: 8/9/2022 5:52:00PM

Print Date: 08/11/2022 2:33:35PM

Method Blank

Blank ID: MB for HBN 1841087 [BTF/19764]
Blank Lab ID: 1678255

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224680001

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19764
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/9/2022 2:38:00PM

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

Method Blank

Blank ID: MB for HBN 1841087 [BTF/19764]
Blank Lab ID: 1678257

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224680001

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19764
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/9/2022 3:58:00PM

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

1224680

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

profile# 385380 OBR

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

Page 1 of 1

SECTION 1

CLIENT:	ADEC
CONTACT:	Morgan Brown
PHONE #:	907-451-2141
PROJECT NAME:	WHADA
PROJECT/ PWSID/ PERMIT #:	NTP 22 464
REPORTS TO:	Morgan Brown
E-MAIL:	Morgan.Brown@alaska.gov
INVOICE TO:	ADEC
QUOTE #:	
P.O. #:	

SECTION 2 / SECTION 3

						PRESERVATIVE	Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				
RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				REMARKS/ LOC ID
1AB	WA04	08/09/22	10:30AM	SW	2	G	1	1									

SECTION 5

RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:
[signature]	8/9/22	2:00PM	
RELINQUISHED BY: (2)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY: (3)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY: (4)	DATE	TIME	RECEIVED FOR LABORATORY BY:
	8/9/22	14:02	[signature]

SECTION 4 DOD Project?

COC ID:

Cooler ID:

DATA DELIVERABLE REQUIREMENTS:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 3.8

OR AMBIENT [ ] 062

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE) INTACT BROKEN **ABSENT** (circled)

(See attached Sample Receipt Form)

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1224680001-A	Na2S2O3 for Chlorine Redu	OK			
1224680001-B	Na2S2O3 for Chlorine Redu	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 Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224757**

Client Project: **WHADA**

Dear Morgan Brown,

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: **ADEC-Air & Water Quality**
SGS Project: **1224757**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

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 & 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
WA04	1224757001	08/11/2022	08/11/2022	Water (Surface, Eff., Ground)
WA04-DUP	1224757002	08/11/2022	08/11/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM21 9223B	E Coli LT2 (Colilert Quant)
SM21 9222D	Fecal Coliform (MF)

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

Detectable Results Summary

Client Sample ID: **WA04**
Lab Sample ID: 1224757001
Microbiology Laboratory

Parameter	Result	Units
E. Coli	248	MPN/100mL
Fecal Coliform	64	col/100mL

Client Sample ID: **WA04-DUP**
Lab Sample ID: 1224757002
Microbiology Laboratory

Parameter	Result	Units
E. Coli	185	MPN/100mL
Fecal Coliform	72	col/100mL

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 **WA04**

Client Sample ID: **WA04**
Client Project ID: **WHADA**
Lab Sample ID: 1224757001
Lab Project ID: 1224757

Collection Date: 08/11/22 12:25
Received Date: 08/11/22 13:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	64		2.00	2.00	col/100mL	1		08/11/22 18:18

Batch Information

Analytical Batch: BTF19769
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/11/22 18:18
Container ID: 1224757001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	248		1	1	MPN/100m	1		08/11/22 15:00

Batch Information

Analytical Batch: BTF19772
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/11/22 15:00
Container ID: 1224757001-B

Print Date: 08/17/2022 8:21:02AM

Results of **WA04-DUP**

Client Sample ID: **WA04-DUP**
Client Project ID: **WHADA**
Lab Sample ID: 1224757002
Lab Project ID: 1224757

Collection Date: 08/11/22 12:25
Received Date: 08/11/22 13:30
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	72		2.00	2.00	col/100mL	1		08/11/22 18:18

Batch Information

Analytical Batch: BTF19769
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/11/22 18:18
Container ID: 1224757002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	185		1	1	MPN/100m	1		08/11/22 15:00

Batch Information

Analytical Batch: BTF19772
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/11/22 15:00
Container ID: 1224757002-B

Print Date: 08/17/2022 8:21:02AM

Method Blank

Blank ID: MB for HBN 1841310 [BTF/19769]
Blank Lab ID: 1678907

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224757001, 1224757002

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19769
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/11/2022 6:18:00PM

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

Method Blank

Blank ID: MB for HBN 1841316 [BTF/19772]
Blank Lab ID: 1678916

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224757001, 1224757002

Results by **SM21 9223B**

Parameter	Results	LOQ/CL	DL	Units
E. Coli	1U	1	1	MPN/100m

Batch Information

Analytical Batch: BTF19772
Analytical Method: SM21 9223B
Instrument:
Analyst: M.A
Analytical Date/Time: 8/11/2022 3:00:00PM

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

SGS

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

1224757

Profile #385380 CM

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

Page 1 of 1

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown — PHONE #: 907-451-2141

PROJECT NAME: WHADA — PROJECT/ PWSID/ PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown — E-MAIL: Morgan.Brown@alaska.gov

INVOICE TO: ADEC — QUOTE #: — P.O. #:

SECTION 2

RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	PRESERVATIVE: Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				REMARKS/ LOC ID
							SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
(1AB) (2AB)	WA04	8-11-22	12:25	SW	2	G	X	X									
	WA04-DUP	8-11-22	12:25	SW	2	G	X	X									

SECTION 5

	DATE	TIME	
RELINQUISHED BY: (1)	8-11-22	1:27	RECEIVED BY:
RELINQUISHED BY:(2)			RECEIVED BY:
RELINQUISHED BY:(3)			RECEIVED BY:
RELINQUISHED BY:(4)	8/11/22	13:30	RECEIVED FOR LABORATORY BY: TD

SECTION 4

DOD Project?

DATA DELIVERABLE REQUIREMENTS:

COC ID:

Cooler ID:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 6.2 SG

OR AMBIENT [ ]

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

http://www.sgs.com/terms-and-conditions

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1224757001-A	Na2S2O3 for Chlorine Redu	OK			
1224757001-B	Na2S2O3 for Chlorine Redu	OK			
1224757002-A	Na2S2O3 for Chlorine Redu	OK			
1224757002-B	Na2S2O3 for Chlorine Redu	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 Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224870**

Client Project: **WHADA**

Dear Morgan Brown,

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: **ADEC-Air & Water Quality**
SGS Project: **1224870**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

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 & 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
WA-04	1224870001	08/16/2022	08/16/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM21 9223B	E Coli LT2 (Colilert Quant)
SM21 9222D	Fecal Coliform (MF)

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

Detectable Results Summary

Client Sample ID: **WA-04**
Lab Sample ID: 1224870001

Microbiology Laboratory

Parameter	Result	Units
E. Coli	51	MPN/100mL
Fecal Coliform	22	col/100mL

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 **WA-04**

Client Sample ID: **WA-04**
Client Project ID: **WHADA**
Lab Sample ID: 1224870001
Lab Project ID: 1224870

Collection Date: 08/16/22 11:15
Received Date: 08/16/22 13:58
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	22		1.54	1.54	col/100mL	1		08/16/22 15:21

Batch Information

Analytical Batch: BTF19782
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/16/22 15:21
Container ID: 1224870001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	51		1	1	MPN/100m	1		08/16/22 11:46

Batch Information

Analytical Batch: BTF19781
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/16/22 11:46
Container ID: 1224870001-B

Print Date: 08/19/2022 8:13:42AM

Method Blank

Blank ID: MB for HBN 1841599 [BTF/19781]
Blank Lab ID: 1679800

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224870001

Results by **SM21 9223B**

Parameter	Results	LOQ/CL	DL	Units
E. Coli	1U	1	1	MPN/100m

Batch Information

Analytical Batch: BTF19781
Analytical Method: SM21 9223B
Instrument:
Analyst: M.A
Analytical Date/Time: 8/16/2022 11:46:00AM

Print Date: 08/19/2022 8:13:43AM

Method Blank

Blank ID: MB for HBN 1841601 [BTF/19782]
Blank Lab ID: 1679802

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224870001

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19782
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/16/2022 3:21:00PM

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

Method Blank

Blank ID: MB for HBN 1841601 [BTF/19782]
Blank Lab ID: 1679804

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224870001

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19782
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/16/2022 6:06:00PM

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

1224870

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

profile # 385380 OBR

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown — PHONE #: 907-451-2141

PROJECT NAME: WHADA — PROJECT/ PWSID/ PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown — E-MAIL: Morgan.Brown@alaska.gov

INVOICE TO: ADEC — QUOTE #: — P.O. #:

SECTION 2

RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	PRESERVATIVE: Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				REMARKS/ LOC ID
							SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
(LAB)	WA-04	08/16/22	11:15AM	SW	2	G	X	X									

SECTION 5

	DATE	TIME	
RELINQUISHED BY: (1)	8/16/22	1:50PM	RECEIVED BY:
RELINQUISHED BY:(2)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(3)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(4)	8/16/22	1358	RECEIVED FOR LABORATORY BY:

SECTION 4

DOD Project?

DATA DELIVERABLE REQUIREMENTS:

COC ID:

Cooler ID:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 4-2 1.2

OR AMBIENT [ ]

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #:	1224870	1224870

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
1224870001-A	Na2S2O3 for Chlorine Redu	OK			
1224870001-B	Na2S2O3 for Chlorine Redu	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 Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1224913**

Client Project: **WHADA**

Dear Morgan Brown,

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

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

Case Narrative

SGS Client: **ADEC-Air & Water Quality**
SGS Project: **1224913**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

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 & 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
WA-04	1224913001	08/17/2022	08/17/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM21 9223B	E Coli LT2 (Colilert Quant)
SM21 9222D	Fecal Coliform (MF)

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

Detectable Results Summary

Client Sample ID: **WA-04**
Lab Sample ID: 1224913001

Microbiology Laboratory

Parameter	Result	Units
E. Coli	82	MPN/100mL
Fecal Coliform	74	col/100mL

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 **WA-04**

Client Sample ID: **WA-04**
Client Project ID: **WHADA**
Lab Sample ID: 1224913001
Lab Project ID: 1224913

Collection Date: 08/17/22 11:30
Received Date: 08/17/22 12:37
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	74		2.00	2.00	col/100mL	1		08/17/22 17:24

Batch Information

Analytical Batch: BTF19786
Analytical Method: SM21 9222D
Analyst: M.A
Analytical Date/Time: 08/17/22 17:24
Container ID: 1224913001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	82		1	1	MPN/100m	1		08/17/22 14:56

Batch Information

Analytical Batch: BTF19784
Analytical Method: SM21 9223B
Analyst: M.A
Analytical Date/Time: 08/17/22 14:56
Container ID: 1224913001-B

Print Date: 08/19/2022 1:04:07PM

Method Blank

Blank ID: MB for HBN 1841657 [BTF/19784]
Blank Lab ID: 1680058

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224913001

Results by **SM21 9223B**

Parameter	Results	LOQ/CL	DL	Units
E. Coli	1U	1	1	MPN/100m

Batch Information

Analytical Batch: BTF19784
Analytical Method: SM21 9223B
Instrument:
Analyst: M.A
Analytical Date/Time: 8/17/2022 1:53:00PM

Print Date: 08/19/2022 1:04:08PM

Method Blank

Blank ID: MB for HBN 1841659 [BTF/19786]
Blank Lab ID: 1680062

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1224913001

Results by **SM21 9222D**

Parameter	Results	LOQ/CL	DL	Units
Fecal Coliform	1.00U	1.00	1.00	col/100mL

Batch Information

Analytical Batch: BTF19786
Analytical Method: SM21 9222D
Instrument:
Analyst: M.A
Analytical Date/Time: 8/17/2022 5:24:00PM

Print Date: 08/19/2022 1:04:13PM

1224913

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

Protik # 385380

www.sgs.com/alaska

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown — PHONE #: 907-451-2141

PROJECT NAME: WHADA — PROJECT/ PWSID/ PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown — E-MAIL: Morgan.Brown@alaska.gov

INVOICE TO: ADEC — QUOTE #: — P.O. #:

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

Page 1 of 1

SECTION 2

RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)	PRESERVATIVE: Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				REMARKS/ LOC ID
							SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
01AB	WA-04	08/17/22	11:30	SW	2	G	X	X									

SECTION 5

	DATE	TIME	
RELINQUISHED BY: (1)	8/17/22	12:30PM	RECEIVED BY:
RELINQUISHED BY:(2)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(3)	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:(4)	8/17/22	12:37	RECEIVED FOR LABORATORY BY:

SECTION 4

DOD Project?

COC ID:

Cooler ID:

DATA DELIVERABLE REQUIREMENTS:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: 2.1 D62

OR AMBIENT [ ]

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #:	1224913	1224913

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?	Yes	
If <0°C, were sample containers ice free?	Yes	
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. ***Note:*** *If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.*	Yes	
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
1224913001-A	Na2S2O3 for Chlorine Redu	OK			
1224913001-B	Na2S2O3 for Chlorine Redu	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 Report of Analysis

To: ADEC-Air & Water Quality
610 University Drive
Fairbanks, AK 99709
(907)451-2141

Report Number: **1225059**

Client Project: **WHADA**

Dear Morgan Brown,

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

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

Case Narrative

SGS Client: **ADEC-Air & Water Quality**
SGS Project: **1225059**
Project Name/Site: **WHADA**
Project Contact: **Morgan Brown**

Refer to sample receipt form for information on sample condition.

Mercury 245.1 Total was analyzed by SGS of Orlando, FL.

*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 & 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
SoCr-4.5	1225059001	08/23/2022	08/23/2022	Water (Surface, Eff., Ground)
SoCr-0.05	1225059002	08/23/2022	08/23/2022	Water (Surface, Eff., Ground)
SoCr-4.5	1225059003	08/23/2022	08/23/2022	Water (Surface, Eff., Ground)
SoCr-0.05	1225059004	08/23/2022	08/23/2022	Water (Surface, Eff., Ground)

Method	Method Description
SM 5310B	Dissolved Organic Carbon
SM21 2340B	Hardness as CaCO3 by ICP-MS
EP200.8	Metals in Drinking Water by ICP-MS DISSO
EP200.8	Metals in Water by 200.8 ICP-MS
SM21 4500NO3-F	Nitrate/Nitrite Flow injection Pres.
SM23 4500-N D	TKN by Phenate (W)
SM21 4500P-B,E	Total Phosphorus (W)

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

Detectable Results Summary

Client Sample ID: **SoCr-4.5**
Lab Sample ID: 1225059001

Metals by ICP/MS

Waters Department

Parameter	Result	Units
Calcium	12700	ug/L
Hardness as CaCO3	47.2	mg/L
Magnesium	3730	ug/L
Total Phosphorus	0.0653	mg/L

Client Sample ID: **SoCr-0.05**
Lab Sample ID: 1225059002

Metals by ICP/MS

Waters Department

Parameter	Result	Units
Calcium	14200	ug/L
Hardness as CaCO3	53.2	mg/L
Magnesium	4310	ug/L
Total Phosphorus	0.0682	mg/L

Client Sample ID: **SoCr-4.5**
Lab Sample ID: 1225059003

Dissolved Metals by ICP/MS

Waters Department

Parameter	Result	Units
Arsenic	8.05	ug/L
Barium	8.24	ug/L
Calcium	12500	ug/L
Iron	333	ug/L
Magnesium	3680	ug/L
Manganese	3.36	ug/L
Potassium	1930	ug/L
Silicon	10300	ug/L
Sodium	3890	ug/L
TOC Average, Dissolved	8.54	mg/L

Client Sample ID: **SoCr-0.05**
Lab Sample ID: 1225059004

Dissolved Metals by ICP/MS

Waters Department

Parameter	Result	Units
Arsenic	6.72	ug/L
Barium	12.2	ug/L
Calcium	14400	ug/L
Iron	289	ug/L
Magnesium	4350	ug/L
Manganese	7.80	ug/L
Potassium	2060	ug/L
Silicon	11100	ug/L
Sodium	5590	ug/L
Zinc	10.3	ug/L
TOC Average, Dissolved	8.40	mg/L

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 **SoCr-4.5**

Client Sample ID: **SoCr-4.5**
Client Project ID: **WHADA**
Lab Sample ID: 1225059001
Lab Project ID: 1225059

Collection Date: 08/23/22 09:50
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	12700		500	150	ug/L	1		09/14/22 14:55
Magnesium	3730		50.0	15.0	ug/L	1		09/14/22 14:55

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/14/22 14:55
Container ID: 1225059001-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	47.2		5.00	5.00	mg/L	1		09/14/22 14:55

Batch Information

Analytical Batch: MMS11675
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 09/14/22 14:55
Container ID: 1225059001-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

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

Results of **SoCr-4.5**

Client Sample ID: **SoCr-4.5**
Client Project ID: **WHADA**
Lab Sample ID: 1225059001
Lab Project ID: 1225059

Collection Date: 08/23/22 09:50
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.200	U	0.200	0.0500	mg/L	2		09/09/22 13:54

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 09/09/22 13:54
Container ID: 1225059001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0653		0.0400	0.0120	mg/L	1		09/12/22 18:14

Batch Information

Analytical Batch: WDA5318
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 09/12/22 18:14
Container ID: 1225059001-C

Prep Batch: WXX14430
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/12/22 17:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		09/16/22 17:24

Batch Information

Analytical Batch: WDA5324
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 09/16/22 17:24
Container ID: 1225059001-C

Prep Batch: WXX14441
Prep Method: METHOD
Prep Date/Time: 09/16/22 12:14
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 09/19/2022 4:13:58PM

Results of **SoCr-0.05**

Client Sample ID: **SoCr-0.05**
Client Project ID: **WHADA**
Lab Sample ID: 1225059002
Lab Project ID: 1225059

Collection Date: 08/23/22 10:40
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Calcium	14200		500	150	ug/L	1		09/14/22 14:58
Magnesium	4310		50.0	15.0	ug/L	1		09/14/22 14:58

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/14/22 14:58
Container ID: 1225059002-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Hardness as CaCO3	53.2		5.00	5.00	mg/L	1		09/14/22 14:58

Batch Information

Analytical Batch: MMS11675
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 09/14/22 14:58
Container ID: 1225059002-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

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

Results of **SoCr-0.05**

Client Sample ID: **SoCr-0.05**
Client Project ID: **WHADA**
Lab Sample ID: 1225059002
Lab Project ID: 1225059

Collection Date: 08/23/22 10:40
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.200	U	0.200	0.0500	mg/L	2		09/09/22 13:56

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 09/09/22 13:56
Container ID: 1225059002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0682		0.0400	0.0120	mg/L	1		09/12/22 18:15

Batch Information

Analytical Batch: WDA5318
Analytical Method: SM21 4500P-B,E
Analyst: IGK
Analytical Date/Time: 09/12/22 18:15
Container ID: 1225059002-C

Prep Batch: WXX14430
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/12/22 17:40
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.00	U	1.00	0.310	mg/L	1		09/16/22 17:28

Batch Information

Analytical Batch: WDA5324
Analytical Method: SM23 4500-N D
Analyst: MEB
Analytical Date/Time: 09/16/22 17:28
Container ID: 1225059002-C

Prep Batch: WXX14441
Prep Method: METHOD
Prep Date/Time: 09/16/22 12:14
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 09/19/2022 4:13:58PM

Results of **SoCr-4.5**

Client Sample ID: **SoCr-4.5**
Client Project ID: **WHADA**
Lab Sample ID: 1225059003
Lab Project ID: 1225059

Collection Date: 08/23/22 09:50
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		09/14/22 15:01
Antimony	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:01
Arsenic	8.05		5.00	1.50	ug/L	1		09/14/22 15:01
Barium	8.24		3.00	0.940	ug/L	1		09/14/22 15:01
Beryllium	0.400	U	0.400	0.130	ug/L	1		09/14/22 15:01
Cadmium	0.500	U	0.500	0.150	ug/L	1		09/14/22 15:01
Calcium	12500		500	150	ug/L	1		09/14/22 15:01
Chromium	5.00	U	5.00	2.50	ug/L	1		09/14/22 15:01
Cobalt	4.00	U	4.00	1.20	ug/L	1		09/14/22 15:01
Copper	3.00	U	3.00	1.00	ug/L	1		09/14/22 15:01
Iron	333		250	78.0	ug/L	1		09/14/22 15:01
Lead	2.00	U	2.00	0.500	ug/L	1		09/14/22 15:01
Magnesium	3680		50.0	15.0	ug/L	1		09/14/22 15:01
Manganese	3.36		1.00	0.350	ug/L	1		09/14/22 15:01
Molybdenum	2.00	U	2.00	0.620	ug/L	1		09/14/22 15:01
Nickel	2.00	U	2.00	0.620	ug/L	1		09/14/22 15:01
Phosphorus	200	U	200	62.0	ug/L	1		09/14/22 15:01
Potassium	1930		500	150	ug/L	1		09/14/22 15:01
Selenium	5.00	U	5.00	1.50	ug/L	1		09/14/22 15:01
Silicon	10300		1000	310	ug/L	1		09/14/22 15:01
Silver	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:01
Sodium	3890		500	150	ug/L	1		09/14/22 15:01
Thallium	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:01
Tin	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:01
Titanium	6.25	U	6.25	3.13	ug/L	1		09/14/22 15:01
Vanadium	20.0	U	20.0	6.20	ug/L	1		09/14/22 15:01
Zinc	10.0	U	10.0	3.10	ug/L	1		09/14/22 15:01

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/14/22 15:01
Container ID: 1225059003-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 09/19/2022 4:13:58PM

Results of **SoCr-4.5**

Client Sample ID: **SoCr-4.5**
Client Project ID: **WHADA**
Lab Sample ID: 1225059003
Lab Project ID: 1225059

Collection Date: 08/23/22 09:50
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	8.54		1.00	0.400	mg/L	1		09/15/22 15:24

Batch Information

Analytical Batch: WTC3228
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 09/15/22 15:24
Container ID: 1225059003-D

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

Results of **SoCr-0.05**

Client Sample ID: **SoCr-0.05**
Client Project ID: **WHADA**
Lab Sample ID: 1225059004
Lab Project ID: 1225059

Collection Date: 08/23/22 10:40
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aluminum	20.0	U	20.0	6.20	ug/L	1		09/14/22 15:04
Antimony	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:04
Arsenic	6.72		5.00	1.50	ug/L	1		09/14/22 15:04
Barium	12.2		3.00	0.940	ug/L	1		09/14/22 15:04
Beryllium	0.400	U	0.400	0.130	ug/L	1		09/14/22 15:04
Cadmium	0.500	U	0.500	0.150	ug/L	1		09/14/22 15:04
Calcium	14400		500	150	ug/L	1		09/14/22 15:04
Chromium	5.00	U	5.00	2.50	ug/L	1		09/14/22 15:04
Cobalt	4.00	U	4.00	1.20	ug/L	1		09/14/22 15:04
Copper	3.00	U	3.00	1.00	ug/L	1		09/14/22 15:04
Iron	289		250	78.0	ug/L	1		09/14/22 15:04
Lead	2.00	U	2.00	0.500	ug/L	1		09/14/22 15:04
Magnesium	4350		50.0	15.0	ug/L	1		09/14/22 15:04
Manganese	7.80		1.00	0.350	ug/L	1		09/14/22 15:04
Molybdenum	2.00	U	2.00	0.620	ug/L	1		09/14/22 15:04
Nickel	2.00	U	2.00	0.620	ug/L	1		09/14/22 15:04
Phosphorus	200	U	200	62.0	ug/L	1		09/14/22 15:04
Potassium	2060		500	150	ug/L	1		09/14/22 15:04
Selenium	5.00	U	5.00	1.50	ug/L	1		09/14/22 15:04
Silicon	11100		1000	310	ug/L	1		09/14/22 15:04
Silver	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:04
Sodium	5590		500	150	ug/L	1		09/14/22 15:04
Thallium	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:04
Tin	1.00	U	1.00	0.310	ug/L	1		09/14/22 15:04
Titanium	6.25	U	6.25	3.13	ug/L	1		09/14/22 15:04
Vanadium	20.0	U	20.0	6.20	ug/L	1		09/14/22 15:04
Zinc	10.3		10.0	3.10	ug/L	1		09/14/22 15:04

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/14/22 15:04
Container ID: 1225059004-B

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 08/25/22 10:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 09/19/2022 4:13:58PM

Results of **SoCr-0.05**

Client Sample ID: **SoCr-0.05**
Client Project ID: **WHADA**
Lab Sample ID: 1225059004
Lab Project ID: 1225059

Collection Date: 08/23/22 10:40
Received Date: 08/23/22 15:06
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
TOC Average, Dissolved	8.40		1.00	0.400	mg/L	1		09/15/22 15:39

Batch Information

Analytical Batch: WTC3228
Analytical Method: SM 5310B
Analyst: EBH
Analytical Date/Time: 09/15/22 15:39
Container ID: 1225059004-D

Print Date: 09/19/2022 4:13:58PM

Method Blank

Blank ID: MB for HBN 1842081 [MXX/35398]
Blank Lab ID: 1681532

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225059001, 1225059002, 1225059003, 1225059004

Results by **EP200.8**

Parameter	Results	LOQ/CL	DL	Units
Aluminum	10.0U	20.0	6.20	ug/L
Antimony	0.500U	1.00	0.310	ug/L
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Beryllium	0.200U	0.400	0.130	ug/L
Cadmium	0.250U	0.500	0.150	ug/L
Calcium	250U	500	150	ug/L
Chromium	2.50U	5.00	2.50	ug/L
Cobalt	2.00U	4.00	1.20	ug/L
Copper	1.50U	3.00	1.00	ug/L
Iron	125U	250	78.0	ug/L
Lead	1.00U	2.00	0.500	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Manganese	0.500U	1.00	0.350	ug/L
Molybdenum	1.00U	2.00	0.620	ug/L
Nickel	1.00U	2.00	0.620	ug/L
Phosphorus	100U	200	62.0	ug/L
Potassium	250U	500	150	ug/L
Selenium	2.50U	5.00	1.50	ug/L
Silicon	500U	1000	310	ug/L
Silver	0.500U	1.00	0.310	ug/L
Sodium	250U	500	150	ug/L
Thallium	0.500U	1.00	0.310	ug/L
Tin	0.500U	1.00	0.310	ug/L
Titanium	12.5U	25.0	7.75	ug/L
Vanadium	10.0U	20.0	6.20	ug/L
Zinc	3.42J	10.0	3.10	ug/L

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Instrument: Perkin Elmer Nexlon P5
Analyst: DSD
Analytical Date/Time: 9/14/2022 2:12:51PM

Prep Batch: MXX35398
Prep Method: E200.2
Prep Date/Time: 8/25/2022 10:04:48AM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1225059 [MXX35398]
Blank Spike Lab ID: 1681533
Date Analyzed: 09/14/2022 14:15

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002, 1225059003, 1225059004

Results by **EP200.8**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Aluminum	1000	1040	104	(85-115)
Antimony	1000	960	96	(85-115)
Arsenic	1000	977	98	(85-115)
Barium	1000	935	94	(85-115)
Beryllium	100	105	105	(85-115)
Cadmium	100	100	100	(85-115)
Calcium	10000	10100	101	(85-115)
Chromium	400	389	97	(85-115)
Cobalt	500	493	99	(85-115)
Copper	1000	946	95	(85-115)
Iron	5000	5250	105	(85-115)
Lead	1000	942	94	(85-115)
Magnesium	10000	10300	103	(85-115)
Manganese	500	472	94	(85-115)
Molybdenum	400	379	95	(85-115)
Nickel	1000	1010	101	(85-115)
Phosphorus	500	538	108	(85-115)
Potassium	10000	9470	95	(85-115)
Selenium	1000	968	97	(85-115)
Silicon	10000	10700	107	(85-115)
Silver	100	97.7	98	(85-115)
Sodium	10000	10000	100	(85-115)
Thallium	10	9.70	97	(85-115)
Tin	100	101	101	(85-115)
Titanium	100	98.6	99	(85-115)
Vanadium	200	199	100	(85-115)
Zinc	1000	1050	105	(85-115)

Batch Information

Analytical Batch: **MMS11675**
Analytical Method: **EP200.8**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSD**

Prep Batch: **MXX35398**
Prep Method: **E200.2**
Prep Date/Time: **08/25/2022 10:04**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 09/19/2022 4:14:02PM

Matrix Spike Summary

Original Sample ID: 1681531
MS Sample ID: 1681536 MS
MSD Sample ID:

Analysis Date: 09/14/2022 14:27
Analysis Date: 09/14/2022 14:31
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002, 1225059003, 1225059004

Results by **EP200.8**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	10.0U	1000	912	91				70-130		
Antimony	0.500U	1000	975	98				70-130		
Arsenic	2.50U	1000	994	99				70-130		
Barium	6.83	1000	937	93				70-130		
Beryllium	0.200U	100	94.5	95				70-130		
Cadmium	0.250U	100	100	100				70-130		
Calcium	72400	10000	80100	77				70-130		
Chromium	2.50U	400	384	96				70-130		
Cobalt	2.00U	500	507	101				70-130		
Copper	109	1000	1040	94				70-130		
Iron	882	5000	6240	107				70-130		
Lead	1.00U	1000	952	95				70-130		
Magnesium	14500	10000	23100	85				70-130		
Manganese	71.9	500	544	94				70-130		
Molybdenum	1.00U	400	392	98				70-130		
Nickel	3.30	1000	1030	103				70-130		
Phosphorus	100U	500	525	105				70-130		
Potassium	1220	10000	10600	94				70-130		
Selenium	2.50U	1000	1020	102				70-130		
Silicon	5190	10000	14700	95				70-130		
Silver	0.500U	100	101	101				70-130		
Sodium	5320	10000	14200	89				70-130		
Thallium	0.500U	10.0	9.6	96				70-130		
Tin	2.27	100	103	101				70-130		
Titanium	12.5U	100	95.4	95				70-130		
Vanadium	10.0U	200	200	100				70-130		
Zinc	15.9	1000	1020	101				70-130		

Batch Information

Analytical Batch: MMS11675
Analytical Method: EP200.8
Instrument: Perkin Elmer Nexlon P5
Analyst: DSD
Analytical Date/Time: 9/14/2022 2:31:00PM

Prep Batch: MXX35398
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 8/25/2022 10:04:48AM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 09/19/2022 4:14:04PM

Method Blank

Blank ID: MB for HBN 1843064 (WFI/3003)
Blank Lab ID: 1684880

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 2:45:01PM

Method Blank

Blank ID: MB for HBN 1843064 (WFI/3003)
Blank Lab ID: 1684886

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225059001, 1225059002

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 1:59:30PM

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

Method Blank

Blank ID: MB for HBN 1843064 (WFI/3003)
Blank Lab ID: 1684892

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225059001, 1225059002

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 1:14:01PM

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 1225059 [WFI3003]
Blank Spike Lab ID: 1684882
Date Analyzed: 09/09/2022 14:43

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.39	95	(70-130)
Nitrite-N	2.5	2.48	99	(90-110)
Total Nitrate/Nitrite-N	5	4.87	97	(90-110)

Batch Information

Analytical Batch: **WFI3003**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

Print Date: 09/19/2022 4:14:11PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1225059 [WFI3003]
Blank Spike Lab ID: 1684888
Date Analyzed: 09/09/2022 13:57

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.45	98	(70-130)
Nitrite-N	2.5	2.50	100	(90-110)
Total Nitrate/Nitrite-N	5	4.96	99	(90-110)

Batch Information

Analytical Batch: **WFI3003**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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 1225059 [WFI3003]
Blank Spike Lab ID: 1684894
Date Analyzed: 09/09/2022 13:12

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.40	96	(70-130)
Nitrite-N	2.5	2.49	99	(90-110)
Total Nitrate/Nitrite-N	5	4.88	98	(90-110)

Batch Information

Analytical Batch: **WFI3003**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

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

Matrix Spike Summary

Original Sample ID: 1224970001
MS Sample ID: 1684837 MS
MSD Sample ID: 1684838 MSD

Analysis Date: 09/09/2022 11:58
Analysis Date: 09/09/2022 12:00
Analysis Date: 09/09/2022 12:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.200U	5.00	5.41	108	5.00	5.49	110	90-110	1.50	(< 25)

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 12:00:00PM

Print Date: 09/19/2022 4:14:13PM

Matrix Spike Summary

Original Sample ID: 1225049001
MS Sample ID: 1684839 MS
MSD Sample ID: 1684840 MSD

Analysis Date: 09/09/2022 13:17
Analysis Date: 09/09/2022 13:19
Analysis Date: 09/09/2022 13:21
Matrix: Drinking Water

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.374	5.00	5.19	96	5.00	5.11	95	90-110	1.50	(< 25)

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 1:19:00PM

Print Date: 09/19/2022 4:14:13PM

Matrix Spike Summary

Original Sample ID: 1225099001
MS Sample ID: 1684843 MS
MSD Sample ID: 1684844 MSD

Analysis Date: 09/09/2022 14:03
Analysis Date: 09/09/2022 14:04
Analysis Date: 09/09/2022 14:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.583	5.00	5.27	94	5.00	5.28	94	90-110	0.21	(< 25)

Batch Information

Analytical Batch: WFI3003
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 9/9/2022 2:04:00PM

Print Date: 09/19/2022 4:14:13PM

Method Blank

Blank ID: MB for HBN 1843196 [WXX/14430]
Blank Lab ID: 1685467

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225059001, 1225059002

Results by **SM21 4500P-B,E**

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0200U	0.0400	0.0120	mg/L

Batch Information

Analytical Batch: WDA5318
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 9/12/2022 5:57:29PM

Prep Batch: WXX14430
Prep Method: SM21 4500P-B,E
Prep Date/Time: 9/12/2022 5:40:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1225059 [WXX14430]
Blank Spike Lab ID: 1685468
Date Analyzed: 09/12/2022 17:58

Spike Duplicate ID: LCSD for HBN 1225059 [WXX14430]
Spike Duplicate Lab ID: 1685469
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500P-B,E**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.199	100	0.2	0.199	100	(75-125)	0.05	(< 25)

Batch Information

Analytical Batch: **WDA5318**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **IGK**

Prep Batch: **WXX14430**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **09/12/2022 17:40**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1225057009
MS Sample ID: 1685470 MS
MSD Sample ID: 1685471 MSD

Analysis Date: 09/12/2022 18:11
Analysis Date: 09/12/2022 18:12
Analysis Date: 09/12/2022 18:13
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM21 4500P-B,E**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0200U	0.200	.198	99	0.200	0.201	101	75-125	1.70	(< 25)

Batch Information

Analytical Batch: WDA5318
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: IGK
Analytical Date/Time: 9/12/2022 6:12:15PM

Prep Batch: WXX14430
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 9/12/2022 5:40:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 09/19/2022 4:14:21PM

Method Blank

Blank ID: MB for HBN 1843849 [WXX/14441]
Blank Lab ID: 1686139

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1225059001, 1225059002

Results by **SM23 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA5324
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 9/16/2022 5:16:00PM

Prep Batch: WXX14441
Prep Method: METHOD
Prep Date/Time: 9/16/2022 12:14:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 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 1225059 [WXX14441]
Blank Spike Lab ID: 1686140
Date Analyzed: 09/16/2022 17:18

Spike Duplicate ID: LCSD for HBN 1225059 [WXX14441]
Spike Duplicate Lab ID: 1686141
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM23 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	3.90	97	4	3.82	96	(75-125)	1.90	(< 25)

Batch Information

Analytical Batch: **WDA5324**
Analytical Method: **SM23 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **MEB**

Prep Batch: **WXX14441**
Prep Method: **METHOD**
Prep Date/Time: **09/16/2022 12:14**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1225059001
MS Sample ID: 1686142 MS
MSD Sample ID: 1686143 MSD

Analysis Date: 09/16/2022 17:24
Analysis Date: 09/16/2022 17:25
Analysis Date: 09/16/2022 17:27
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225059001, 1225059002

Results by **SM23 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	1.00U	4.00	4.01	100	4.00	3.77	94	75-125	6.10	(< 25)

Batch Information

Analytical Batch: WDA5324
Analytical Method: SM23 4500-N D
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 9/16/2022 5:25:00PM

Prep Batch: WXX14441
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 9/16/2022 12:14:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 09/19/2022 4:14:26PM

1225059

SGS

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

Profile# 385380 GN

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.

SECTION 1

CLIENT: ADEC

CONTACT: Morgan Brown   PHONE #: 907-451-2141

PROJECT NAME: WHADA   PROJECT/PWSID/PERMIT #: NTP 22 464

REPORTS TO: Morgan Brown   E-MAIL: Morgan.Brown@alaska.gov

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

SECTION 2 / **SECTION 3**

							PRESERVATIVE	Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				
RESERVED FOR LAB USE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE: Comp Grab MI (Multi-incremental)		SM9222D Fecal Coliform	SM9223B E. Coli	245.1 Total Hg	200.8 Diss Metals (Lab Filter)	2340B Total hardness	5310B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				REMARKS/ LOC ID
~~1AC~~ ~~2AD~~	SoCr-4.5	8/23/22	9:50	W	5	Grab				X	X	X	X	X				1AC 3AD
2AD	SoCr-0.05	↓	10:40	↓	↓	↓				X	X	X	X	X				2AC 4AD

SECTION 5

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
(1) [signature]	8/23/22	11:30	
(2)			
(3)			
(4) [signature]	8/23/22	15:06	RECEIVED FOR LABORATORY BY: [signature]

DLF

SECTION 4 DOD Project? NO

COC ID:

Cooler ID:

DATA DELIVERABLE REQUIREMENTS:

REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS

TEMP BLANK °C: ____

OR AMBIENT [ ]

(See attached Sample Receipt Form)

CHAIN OF CUSTODY SEAL: (CIRCLE) (INTACT) BROKEN ABSENT

(See attached Sample Receipt Form)

Alert Expeditors Inc.

#421313

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 8 23

From Grant

To SGS

Collect ❐	Prepay ❐	Advance Charges ❐
Job #	PO#	

Cooler

Shipped Signature

Total Charge

Received By: DLF

e-Sample Receipt Form

SGS Workorder #:	1225059	1225059

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
1225059001-A	HNO3 to pH < 2	OK			
1225059001-B	HNO3 to pH < 2	OK			
1225059001-C	H2SO4 to pH < 2	OK			
1225059002-A	HNO3 to pH < 2	OK			
1225059002-B	HNO3 to pH < 2	OK			
1225059002-C	H2SO4 to pH < 2	OK			
1225059003-A	No Preservative Required	OK			
1225059003-B	HNO3 to pH < 2	OK			
1225059003-C	No Preservative Required	OK			
1225059003-D	HCL to pH < 2	OK			
1225059004-A	No Preservative Required	OK			
1225059004-B	HNO3 to pH < 2	OK			
1225059004-C	No Preservative Required	OK			
1225059004-D	HCL to pH < 2	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.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America, Inc

1225059

SGS Job Number: FA98441

Sampling Date: 08/23/22

Report to:

SGS North America, Inc
200 W Potter Dr
Anchorage, AK 99518
julie.shumway@sgs.com

ATTN: Julie Shumway

Total number of pages in report: 17

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

Test results relate only to samples analyzed.

Sections:

1 2 3 4 5 6

Table of Contents

Sample Summary

SGS North America, Inc

1225059

Job No: FA98441

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA98441-1	08/23/22	09:50		08/26/22	AQ	Water	SOCR-4.5
FA98441-2	08/23/22	10:40		08/26/22	AQ	Water	SOCR-0.05

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc **Job No:** FA98441

Site: 1225059 **Report Date:** 9/1/2022 1:27:49 PM

On 08/26/2022, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA98441 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method EPA 245.1

Matrix: AQ **Batch ID:** MP41147

Sample(s) FA98387-1DUP, FA98387-1MS, FA98387-1MSD, FA98387-1SDL were used as the QC samples for metals.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Summary of Hits

Job Number: FA98441
Account: SGS North America, Inc
Project: 1225059
Collected: 08/23/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA98441-1	**SOCR-4.5**					
No hits reported in this sample.						
FA98441-2	**SOCR-0.05**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SOCR-4.5		
Lab Sample ID:	FA98441-1	**Date Sampled:**	08/23/22
Matrix:	AQ - Water	**Date Received:**	08/26/22
		Percent Solids:	n/a
Project:	1225059		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/31/22	08/31/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18879
(2) Prep QC Batch: MP41147

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SOCR-0.05		
Lab Sample ID:	FA98441-2	**Date Sampled:**	08/23/22
Matrix:	AQ - Water	**Date Received:**	08/26/22
		Percent Solids:	n/a
Project:	1225059		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	08/31/22	08/31/22	JC	EPA 245.1 [1]	EPA 245.1 [2]

(1) Instrument QC Batch: MA18879
(2) Prep QC Batch: MP41147

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA98441

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	SGS Orlando, FL
CONTACT:	Julie Shumway	PHONE NO:	(907) 562-2343
PROJECT NAME:	1225059	PWSID#:	
		NPDL#:	
REPORTS TO:	Julie Shumway	E-MAIL:	Julie.Shumway@sgs.com; Env.Alaska.RefLabTeam@sgs.com
INVOICE TO:	SGS - Alaska	QUOTE #:	
	env.alaska.accounting@sgs.com	P.O. #:	1225059

Additional Comments: All soils report out in dry weight unless

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	# CONTAINERS	Preservative Used: HNO3	Mercury 245.1, Total	MS	MSD	SGS lab #	Location ID
						TYPE C = COMP G = GRAB MI = Multi Incremental Solls					
1	SoCr-4.5	08/23/2022	09:50:00	Water	1		X			1225059001	
2	SoCr-0.05	08/23/2022	10:40:00	Water	1		X			1225059002	

Relinquished By: (1)	Date	Time	Received By:	8/26/22 1430	DOD Project? NO
	8/25/22	1520			Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. NO
Relinquished By: (2)	Date	Time	Received By:		Data Deliverable Requirements: Level 2
Relinquished By: (3)	Date	Time	Received By:		Cooler ID:
Relinquished By: (4)	Date	Time	Received For Laboratory By:		Requested Turnaround Time and-or Special Instructions:

Temp Blank °C: 3.8 C corr
or Ambient [ ]

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT

LABEL VERIFICATION

F088_COC_REF_LAB_20190411

FA98441: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA98441 **Client:** SGSAKA **Project:** 1225059

Date / Time Received: 8/26/2022 2:30:00 PM **Delivery Method:** FEDEX **Airbill #'s:** 1483 4802 6570

Therm ID: IR 1; **Therm CF:** 0.6; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (4.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 8/26/2022 2:30:00 PM Reviewer: _____ Date: _____

5.1

5

FA98441: Chain of Custody
Page 2 of 2

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA98441
Account: SGSAKA - SGS North America, Inc
Project: 1225059

QC Batch ID: MP41147 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/31/22 08/31/22

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	0.50	.03	.03	-0.010	<0.50	-0.0040	<0.50

Associated samples MP41147: FA98441-1, FA98441-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98441
Account: SGSAKA - SGS North America, Inc
Project: 1225059

QC Batch ID: MP41147
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date:			08/31/22				08/31/22		
Metal	FA98387-1 Original	DUP	RPD	QC Limits	FA98387-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	2.5	3	83.3	70-130

Associated samples MP41147: FA98441-1, FA98441-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98441
Account: SGSAKA - SGS North America, Inc
Project: 1225059

QC Batch ID: MP41147 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/31/22

Metal	FA98387-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.3	3	76.7	8.3	

Associated samples MP41147: FA98441-1, FA98441-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA98441
Account: SGSAKA - SGS North America, Inc
Project: 1225059

QC Batch ID: MP41147 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/31/22

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.9	3	96.7	85-115

Associated samples MP41147: FA98441-1, FA98441-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA98441
Account: SGSAKA - SGS North America, Inc
Project: 1225059

QC Batch ID: MP41147 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/31/22

Metal	FA98387-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP41147: FA98441-1, FA98441-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested