

Laboratory Report of Analysis

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

Report Number: 1222042

Client Project: **DEC 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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/31/2022 2:44:18PM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

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Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222042 Project Name/Site: DEC WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

MB for HBN 1836326 [MXX/35114] (1664384) MB

200.8 - Metals analyte Aluminum is detected in the MB above the LOQ. The associated sample concentrations are greater than 5X the concentration of the contamination.

1222069001MS (1664703) MS

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

1222069001MSD (1664704) MSD

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

1222120008MS (1664705) MS

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

1222120008MSD (1664706) MSD

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

1222042001MSD (1665112) MSD

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 - MSD recovery was outside of QC criteria. Refer to the LCSD for accuracy. Mercury 245.1 Total were 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.

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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:

! B	Surrogate out of control limits. Indicates the analyte is found in a blank associated with the sample. Continuing Calibration Verification Closing Continuing Calibration Verification
-	Continuing Calibration Verification
CCV/CVA/CVB	Closing Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	
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.
Sample summaries which All DRO/RRO analyses are	include a result for "Total Solids" have already been adjusted for moisture content.

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Note:



	:	Sample Summary	,	
Client Sample ID	Lab Sample ID	<u>Collected</u>	Received	<u>Matrix</u>
Cam 6	1222042001	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
AnchBact 20-01	1222042002	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Cam 6	1222042003	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
AnchBact 20-01	1222042004	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Method	Method Des	<u>scription</u>		
SM21 9223B	E Coli LT2 (Colilert Quant)		
SM21 9222D	Fecal Colifo	rm (MF)		
SM21 2340B	Hardness as	s CaCO3 by ICP-N	ЛS	
EP200.8	Metals in W	ater by 200.8 ICP	-MS	
SM21 4500NO3-F	Nitrate/Nitrit	e Flow injection P	res.	
SM23 4500-N D	TKN by Phe	enate (W)		
SM21 4500P-B,E	Total Phosp	horus (W)		

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Detectable Re	sults Summary
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Client Sample ID: Cam 6			
Lab Sample ID: 1222042001	<u>Parameter</u>	Result	<u>Units</u>
Metals by ICP/MS	Calcium	33800	ug/L
	Hardness as CaCO3	112	mg/L
	Magnesium	6620	ug/L
Microbiology Laboratory	E. Coli	102	MPN/100mL
	Fecal Coliform	15	col/100mL
Waters Department	Total Nitrate/Nitrite-N	1.01	mg/L
Client Sample ID: AnchBact 20-01			
Lab Sample ID: 1222042002	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Metals by ICP/MS	Calcium	21800	ug/L
	Hardness as CaCO3	68.8	mg/L
	Magnesium	3480	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.807	mg/L

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Client Sample ID: Cam 6 Client Project ID: DEC WHADA Lab Sample ID: 1222042001 Lab Project ID: 1222042	R M S	Collection Date: 05/04/22 13:10 Received Date: 05/04/22 14:08 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Metals by ICP/MS			_				
<u>Parameter</u> Calcium	<u>Result Qual</u> 33800	<u>LOQ/CL</u> 500	<u>DL</u> 150	<u>Units</u> ug/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 16:24
Magnesium	6620	50.0	15.0	ug/L	1		05/19/22 16:24
Batch Information							
Analytical Batch: MMS11558 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/19/22 16:24 Container ID: 1222042001-C		Prep Batch: MXX35114 Prep Method: E200.2 Prep Date/Time: 05/19/22 09:07 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL					
Parameter	Result Qual	LOQ/CL	DL	Units	DF	<u>Allowable</u> Limits	Date Analyzed
Hardness as CaCO3	112	5.00	5.00	mg/L	1		05/19/22 16:24
Batch Information							
Analytical Batch: MMS11558 Analytical Method: SM21 2340B Analyst: DSD Analytical Date/Time: 05/19/22 16:24 Container ID: 1222042001-C			Prep Methoo Prep Date/T Prep Initial V	MXX35114 d: E200.2 ime: 05/19/2 Vt./Vol.: 20 i : Vol: 50 mL			

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Results of Cam 6						
Client Sample ID: Cam 6 Client Project ID: DEC WHADA Lab Sample ID: 1222042001 Lab Project ID: 1222042		Ri M Se	eceived Da	ate: 05/04/22 13:10 ate: 05/04/22 14:08 er (Surface, Eff., Gro		
Results by Microbiology Laboratory			_			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 15	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/04/22 18:1
Batch Information						
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/04/22 18:10 Container ID: 1222042001-F Parameter E. Coli	<u>Result Qual</u> 102	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> DF MPN/100rr 1	<u>Allowable</u> Limits	<u>Date Analyze</u> 05/04/22 17:5
Batch Information						
Analytical Batch: BTF19518 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/04/22 17:50 Container ID: 1222042001-E						

Print Date: 05/31/2022 2:44:26PM

ults of Cam 6 nt Sample ID: Cam 6 nt Project ID: DEC WHADA Sample ID: 1222042001 Project ID: 1222042		F	Collection Da Received Dat Matrix: Water Solids (%):	te: 05/04/2	22 14:08		
		L	ocation:				
ults by Waters Department							
<u>meter</u> I Nitrate/Nitrite-N	<u>Result Qual</u> 1.01	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/19/22 12:0
ch Information							
nalytical Batch: WFI2989 nalytical Method: SM21 4500NO3-F nalyst: EBH nalytical Date/Time: 05/19/22 12:00 ontainer ID: 1222042001-B							
						Allowable	
	<u>Result Qual</u> 0.0400 U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	<u>DF</u> 1	<u>Limits</u>	<u>Date Analyze</u> 05/17/22 13:0
ch Information							
nalytical Batch: WDA5203 nalytical Method: SM21 4500P-B,E nalyst: RJC nalytical Date/Time: 05/17/22 13:08 ontainer ID: 1222042001-B			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: SM21 450 me: 05/17/2 t./Vol.: 25 i	00P-B,E 22 10:30 mL		
<u>meter</u> I Kjeldahl Nitrogen	<u>Result Qual</u> 1.00 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/23/22 09:3
				-			
ch Information nalytical Batch: WDA5209 nalytical Method: SM23 4500-N D nalyst: DMM nalytical Date/Time: 05/23/22 09:37 ontainer ID: 1222042001-B			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 05/20/2 /t./Vol.: 25 i	22 11:30 mL		

COC



Client Sample ID: AnchBact 20-01 Client Project ID: DEC WHADA Lab Sample ID: 1222042002 Lab Project ID: 1222042	C F N S L						
Results by Metals by ICP/MS <u>Parameter</u> Calcium Magnesium	<u>Result Qual</u> 21800 3480	LOQ/CL 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	<u>DF</u> 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 16:32 05/19/22 16:32
Batch Information Analytical Batch: MMS11558 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/19/22 16:32 Container ID: 1222042002-C			Prep Method Prep Date/T Prep Initial V	MXX35114 d: E200.2 ime: 05/19/2 Vt./Vol.: 20 t Vol: 50 mL	mL		
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 68.8	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 16:32
Batch Information Analytical Batch: MMS11558 Analytical Method: SM21 2340B Analyst: DSD Analytical Date/Time: 05/19/22 16:32 Container ID: 1222042002-C			Prep Method Prep Date/T Prep Initial V	MXX35114 d: E200.2 ime: 05/19/2 Vt./Vol.: 20 t Vol: 50 mL	mL		

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Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B	Re Ma Sol Loc / <u>CL</u>) / <u>CL</u>) / / CL) / / / / / / / / / / / / / / / / / /	Illection Dates ceived Data atrix: Water lids (%): cation: DL 0.0500	te: 05/04/2 (Surface, <u>Units</u> mg/L	22 14:08	und) <u>Allowable</u> <u>Limits</u> <u>Allowable</u> <u>Limits</u>	Date Analyzed 05/19/22 12:01 Date Analyzed 05/17/22 13:09
Client Project ID: DEC WHADA Lab Sample ID: 1222042002 Lab Project ID: 1222042 Results by Waters Department Parameter Result Qual LOQ/C Total Nitrate/Nitrite-N 0.807 0.200 Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B Parameter Result Qual LOQ/C 0.0400 U 0.0400 Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	Re Ma Sol Loc / <u>CL</u>) / <u>CL</u>) / / CL) / / / / / / / / / / / / / / / / / /	Ceeived Dat atrix: Water lids (%): cation: DL 0.0500 DL 0.0500	te: 05/04/2 (Surface, <u>Units</u> mg/L	22 14:08 Eff., Groo DF 2	Allowable Limits	05/19/22 12:01
Parameter Result Qual LOQ/C Total Nitrate/Nitrite-N 0.807 0.200 Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analytical Method: SM21 4500NO3-F Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B Parameter Result Qual LOQ/C Total Phosphorus 0.0400 U 0.0400 Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analytical Method: SM21 4500P-B,E Analytical Date/Time: 05/17/22 13:09) / <u>CL</u>)0 Pr Pr Pr Pr Pr	0.0500 <u>DL</u> 0.0120 rep Batch: 1	mg/L Units mg/L	2 	Limits	05/19/22 12:01
Total Nitrate/Nitrite-N 0.807 0.200 Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analytical Method: SM21 4500NO3-F Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B Parameter Result Qual LOQ/C Total Phosphorus 0.0400 U 0.0400 Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analytical Date/Time: 05/17/22 13:09 SM21 3:09 SM21 3:09) / <u>CL</u>)0 Pr Pr Pr Pr Pr	0.0500 <u>DL</u> 0.0120 rep Batch: 1	mg/L Units mg/L	2 	Limits	05/19/22 12:01
Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B Parameter Total Phosphorus Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	DO Pr Pr Pr Pr	0.0120 rep Batch: \	mg/L			
Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 12:01 Container ID: 1222042002-B Parameter Total Phosphorus Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	DO Pr Pr Pr Pr	0.0120 rep Batch: \	mg/L			
Total Phosphorus 0.0400 U 0.0400 Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	DO Pr Pr Pr Pr	0.0120 rep Batch: \	mg/L			
Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	Pr Pr Pr					
Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:09	Pr Pr Pr					
	Pr	rep Date/Tir rep Initial W rep Extract \	: SM21 450 me: 05/17/2 t./Vol.: 25 i	22 10:30		
Parameter Result Qual LOQ/C Total Kjeldahl Nitrogen 1.00 U 1.00	/ <u>CL</u>	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/23/22 09:43
Details information						
Batch Information Analytical Batch: WDA5209 Analytical Method: SM23 4500-N D Analyst: DMM Analytical Date/Time: 05/23/22 09:43 Container ID: 1222042002-B	Pr Pr Pr	rep Batch: \ rep Method: rep Date/Tir rep Initial W rep Extract \	: METHOD me: 05/20/2 /t./Vol.: 25 i	22 11:30 mL		

	Matri	x: Water (Surf	ace, Eff., Ground)	
D				
<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL	
M21 9222D				
		Results LOQ/CL 1.00U 1.00	D Results 1.00U 1.00 1.00 1.00 1.00 1.00 1.00	Results LOQ/CL DL Units 1.00U 1.00 1.00 col/100mL

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		_			
Method Blank					
Blank ID: MB for HBN Blank Lab ID: 1662647		Matrix	k: Water (Sur	face, Eff., Ground)	
QC for Samples: 1222042001					
Results by SM21 9223	В) 			
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m	
Batch Information					
Analytical Batch: BTF Analytical Method: SI Instrument:	19518 M21 9223B				
Analyst: M.A Analytical Date/Time:	5/4/2022 5:50:00PM				

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Blank ID: MB for HBN 1 Blank Lab ID: 1664384 QC for Samples: 1222042001, 1222042002			,	ice, Eff., Ground)	
Results by EP200.8					
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
Calcium Magnesium	250U 25.0U	500 50.0	150 15.0	ug/L ug/L	
Analytical Batch: MMS Analytical Method: EF Instrument: P7 Agilen Analyst: DSD Analytical Date/Time:	200.8	Prep Me Prep Da Prep Ini	tch: MXX35114 ethod: E200.2 ite/Time: 5/19/2 tial Wt./Vol.: 20 tract Vol: 50 ml	022 9:07:31AM mL	

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Blank Spike Summary			
Blank Spike ID: LCS for HBI Blank Spike Lab ID: 166438 Date Analyzed: 05/19/2022	5	35114]	Matrix Mater (Surface Eff. Organist)
			Matrix: Water (Surface, Eff., Ground)
QC for Samples: 1222042	2001, 1222042002		
Results by EP200.8		_	
	Plank	Spike (ug/L)	
<u>Parameter</u>	<u>Spike</u> <u>Res</u>		CL
Calcium	10000 999		(85-115)
Magnesium	10000 102		(85-115)
-			· · · ·
Batch Information			
Analytical Batch: MMS11558 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD			Prep Batch: MXX35114 Prep Method: E200.2 Prep Date/Time: 05/19/2022 09:07 Spike Init Wt./Vol.: 10000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1664377 MS Sample ID: 1664388 MS MSD Sample ID: Analysis Date: 05/19/2022 15:40 Analysis Date: 05/19/2022 15:43 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222042001, 1222042002

		Ma	trix Spike ((ug/L)	Spik	e Duplicat	e (ug/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Calcium	59900	10000	68000	81				70-130		
Magnesium	16900	10000	26300	93				70-130		
Batch Information Analytical Batch: MMS11 Analytical Method: EP200 Instrument: P7 Agilent 78 Analyst: DSD Analytical Date/Time: 5/1	0.8 300	3PM		Prep Prep Prep	Method: Date/Tin Initial W	0	st for Metals 022 9:07:3 .00mL		IS	

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Method Blank						
Blank ID: MB for HBN 1836364 (WFI/2989) Blank Lab ID: 1664718		Matrix: Water (Surface, Eff., Ground)				
QC for Samples:						
Results by SM21 4500NO	3-F]				
<u>Parameter</u> Nitrate-N	<u>Results</u> 0.100U	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L		
Nitrite-N Fotal Nitrate/Nitrite-N	0.100U 0.100U	0.200 0.200	0.0500 0.0500	mg/L mg/L		
atch Information						
Analytical Date/Time: 5/1						

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Blank Lab ID: 1664724 QC for Samples: 1222042001, 1222042002					
Results by SM21 4500NO	3-F				
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Results</u> 0.100U 0.106J 0.100U	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	
Analytical Batch: WFI298 Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH Analytical Date/Time: 5/1	4500NO3-F nented flow				

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Blank Lab ID: 1664730 QC for Samples: 1222042001, 1222042002					
Results by SM21 4500NO	3-F				
<u>Parameter</u> Nitrate-N Nitrite-N	<u>Results</u> 0.100U 0.100U	<u>LOQ/CL</u> 0.200 0.200	<u>DL</u> 0.0500 0.0500	<u>Units</u> mg/L mg/L	
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L	
Analytical Batch: WFI298 Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH Analytical Date/Time: 5/1	4500NO3-F iented flow				

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Blank	Spike	Summary
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Blank Spike ID: LCS for HBN 1222042 [WFI2989] Blank Spike Lab ID: 1664720 Date Analyzed: 05/19/2022 13:17

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

	ł	Blank Spike	e (mg/L)
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>
Nitrate-N	2.5	2.59	104
Nitrite-N	2.5	2.56	102
Total Nitrate/Nitrite-N	5	5.15	103

Batch Information

Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH

Print Date: 05/31/2022 2:44:47PM



Blank Spike ID: LCS for H Blank Spike Lab ID: 1664 Date Analyzed: 05/19/20 QC for Samples: 1222	726			Matrix: Water (Surface, Eff., Ground)
Results by SM21 4500NC)3-F			
		Blank Spike	e (mg/L)	
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>
Nitrate-N	2.5	2.61	104	(70-130)
Nitrite-N	2.5	2.60	104	(90-110)
Total Nitrate/Nitrite-N	5	5.20	104	(90-110)
Batch Information Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F			

Print Date: 05/31/2022 2:44:47PM



Blank Spike ID: LCS for H Blank Spike Lab ID: 1664 Date Analyzed: 05/19/20 QC for Samples: 1222	1732			Matrix: Water (Surface, Eff., Ground)
Results by SM21 4500NC				
		Blank Spike	e (mg/L)	
Parameter	Spike	Result	<u>Rec (%)</u>	<u>CL</u>
Nitrate-N	2.5	2.49	100	(70-130)
Nitrite-N	2.5	2.52	101	(90-110)
Total Nitrate/Nitrite-N	5	5.01	100	(90-110)
Batch Information				
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F			

Print Date: 05/31/2022 2:44:47PM



Matrix Spike Summary Original Sample ID: 1222069001 Analysis Date: 05/19/2022 11:51 MS Sample ID: 1664703 MS Analysis Date: 05/19/2022 11:53 MSD Sample ID: 1664704 MSD Analysis Date: 05/19/2022 11:54 Matrix: Drinking Water QC for Samples: 1222042001, 1222042002 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL Total Nitrate/Nitrite-N 0.763 5.00 6.44 114 * 5.00 6.40 113 * 90-110 0.70 (< 25) **Batch Information** Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 11:53:00AM

Print Date: 05/31/2022 2:44:49PM



Matrix Spike Summary Original Sample ID: 1222120008 Analysis Date: 05/19/2022 12:36 MS Sample ID: 1664705 MS Analysis Date: 05/19/2022 12:38 MSD Sample ID: 1664706 MSD Analysis Date: 05/19/2022 12:40 Matrix: Drinking Water QC for Samples: 1222042001, 1222042002 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL Total Nitrate/Nitrite-N 0.200U 5.00 5.62 112 * 5.00 5.64 113 * 90-110 0.35 (< 25) **Batch Information** Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 12:38:00PM

Print Date: 05/31/2022 2:44:49PM

SGS North America Inc.

Member of SGS Group



Matrix Spike Summary

Original Sample ID: 1222386003 MS Sample ID: 1664709 MS MSD Sample ID: 1664710 MSD Analysis Date: 05/19/2022 11:05 Analysis Date: 05/19/2022 11:07 Analysis Date: 05/19/2022 11:09 Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 45	600NO3-F		_							
		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	Sample	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Nitrate-N	2.76	2.50	5.11	94	2.50	5.17	96	70-130	1.10	(< 25)
Nitrite-N	0.200U	2.50	2.74	110	2.50	2.75	110	90-110	0.12	(< 25)

Batch Information

Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 11:07:34AM

Print Date: 05/31/2022 2:44:49PM

Method Blank Blank ID: MB for HBN 1	836316 [WXX/14205]	Matriz	x: Water (Surfac	ce, Eff., Ground)	
Blank Lab ID: 1664342					
QC for Samples: 1222042001, 1222042002	2				
Results by SM21 4500F	P-B,E				
<u>Parameter</u> Total Phosphorus	<u>Results</u> 0.0200U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	
Batch Information					
Analytical Batch: WDA Analytical Method: SM			tch: WXX14205 ethod: SM21 450		
Instrument: Discrete A			ate/Time: 5/17/20		
Analyst: RJC			tial Wt./Vol.: 25 r	nL	
Analytical Date/Time:	5/17/2022 12:50:11PM	Prep Ex	tract Vol: 25 mL		

Print Date: 05/31/2022 2:44:50PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222042 [WXX14205] Blank Spike Lab ID: 1664343 Date Analyzed: 05/17/2022 12:51 Spike Duplicate ID: LCSD for HBN 1222042 [WXX14205] Spike Duplicate Lab ID: 1664344 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222042001, 1222042002

Results by SM21 4500P-B,E									
		Blank Spike	e (mg/L)	5					
<u>Parameter</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Phosphorus	0.2	0.203	101	0.2	0.193	97	(75-125)	4.80	(< 25)
Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P Instrument: Discrete Analyzer 2 Analyst: RJC	,			Pre Pre Spil	p Date/Tim ke Init Wt./\	SM21 4500F e: 05/17/202 /ol.: 0.2 mg	,		

Print Date: 05/31/2022 2:44:52PM



Matrix Spike Summary

Original Sample ID: 1221998021 MS Sample ID: 1664345 MS MSD Sample ID: 1664346 MSD

QC for Samples: 1222042001, 1222042002

Analysis Date: 05/17/2022 12:58 Analysis Date: 05/17/2022 13:01 Analysis Date: 05/17/2022 13:02 Matrix: Water (Surface, Eff., Ground)

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CI
Total Phosphorus	0.0200U	0.200	.2	100	0.200	0.196	98	75-125	1.80	(< 25)
Analytical Batch: WDA52 Analytical Method: SM21			Prep Batch: WXX14205 Prep Method: Total Phosphorus (W) Ext. Prep Date/Time: 5/17/2022 10:30:00AM Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL							

Print Date: 05/31/2022 2:44:54PM

SGS North America Inc.

Blank ID: MB for HBN 18364 Blank Lab ID: 1665108 QC for Samples: 1222042001, 1222042002	Matrix: Water (Surface, Eff., Ground)							
Results by SM23 4500-N D								
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Results</u> 0.500U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L				
Batch Information								
Analytical Batch: WDA5209 Analytical Method: SM23 45 Instrument: Discrete Analyz Analyst: DMM Analytical Date/Time: 5/23/2	500-N D zer 2	Prep Ba Prep Me Prep Da Prep Ini Prep Ex)22 11:30:00AM nL					



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222042 [WXX14215] Blank Spike Lab ID: 1665109 Date Analyzed: 05/23/2022 09:34 Spike Duplicate ID: LCSD for HBN 1222042 [WXX14215] Spike Duplicate Lab ID: 1665110 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222042001, 1222042002

		Blank Spike	re (mg/L) Spike Duplicate (mg/L)						
<u>Parameter</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Total Kjeldahl Nitrogen	4	3.81	95	4	3.93	98	(75-125)	3.00	(< 25)
	Prep Batch: WXX14215 Prep Method: METHOD Prep Date/Time: 05/20/2022 11:30 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL								

Print Date: 05/31/2022 2:44:57PM



Matrix Spike Summary

Original Sample ID: 1222042001 MS Sample ID: 1665111 MS MSD Sample ID: 1665112 MSD

QC for Samples: 1222042001, 1222042002

 Analysis Date:
 05/23/2022
 9:37

 Analysis Date:
 05/23/2022
 9:38

 Analysis Date:
 05/23/2022
 9:40

 Matrix:
 Water (Surface, Eff., Ground)

Results by SM23 4500-N D			Matrix Spike (mg/L)			e Duplicate						
Parameter Total Kjeldahl Nitrogen	<u>Sample</u> 1.00U	<u>Spike</u> 4.00	<u>Result</u> 4.63	<u>Rec (%)</u> 116	<u>Spike</u> 4.00	<u>Result</u> 1.37	<u>Rec (%)</u> 34 *	<u>CL</u> 75-125	<u>RPD (%)</u> <u>RPD CL</u> 109.00 * (< 25)			
, ,									× ,			
Batch Information	200			Dues	Deteks		_					
Analytical Batch: WDA5 Analytical Method: SM2					Prep Batch: WXX14215 Prep Method: Distillation TKN by Phenate (W)							
Instrument: Discrete Analyzer 2					Prep Date/Time: 5/20/2022 11:30:00AM							
	Analyst: DMM Analytical Date/Time: 5/23/2022 9:38:46AM					Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL						

Print Date: 05/31/2022 2:44:59PM

Lambe, Alexandra (Anchorage)

From:Lambe, Alexandra (Anchorage)Sent:Tuesday, May 10, 2022 12:34 PMTo:morgan.brown@alaska.govSubject:1222042, 1222045 - Diss. Metals Pres./Filtration IssueAttachments:1222042_COC.pdf; 1222045_COC.pdf

Hi Morgan,

Thank you for your time on the phone today. As discussed, we'll be running the attached samples for Total Metals and Total Organic Carbon (versus dissolved), since they were mistakenly preserved before filtration.

Thanks again!

Allie Lambe Industries & Environment Project Manager

SGS North America Inc. 200 West Potter Dr 99518 – Anchorage Main: 907 562 2343 Direct: 907 550 3217 E-mail: Alexandra.Lambe@sgs.com

Lambe, Alexandra (Anchorage)

Subject:

[EXTERNAL] RE: WHADA Samples Rec'd 05/04/22 - Dissolved Metals List

From: Brown, Morgan E (DEC) <morgan.brown@alaska.gov>
Sent: Wednesday, May 11, 2022 8:29 AM
To: Lambe, Alexandra (Anchorage) <Alexandra.Lambe@sgs.com>
Subject: RE: [EXTERNAL] RE: WHADA Samples Rec'd 05/04/22 - Dissolved Metals List

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi Allie,

That sounds good about the standard scan. And for the dissolved metals and DOC, let's go ahead and cancel to wait on the re-sample in that case. Just to confirm, this way we will stay with our original cost, is that right?

Thank you!

Morgan Brown Water Quality Alaska Department of Environmental Conservation 610 University Ave Fairbanks, AK 99709 (907)451-2141 http://dec.alaska.gov/water/water-quality



SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD



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http://www.spsycom/terms-and-conditions

F101_eCOC_Revised_2014-12-10



	3G	Anchorage, AK 99518 (ph)	3180 Peger Rd. Ste.	Sample K	it Request		Client pickup Date:	5/2/2022	Time:	08:00
							Be sure to ask if clien	t will ship by ground	(DOT) or air	carrier (IATA)
	Does a	Profile exist in LIMS? If not, please	e send a request for n	ew profile build.			Deliver to client:			
	nt Name:		C				Ship by/Air Carrier:			
Ord		Morgan Brown					Airbill Number:			
Email:							Date to ship by:	·····		
Project Name: Quote #:			D ("1 "				Notes:			
Quote #			Profile#:				Kit request taken by:	JAN	Date:	April 26, 2022
Delivery Address:		••••••••••••••••••••••••••••••••••••••			Kit <i>(inclu</i>	dina lid tiahtness fo	Kit prepared by: or pres'd bottles) checked by:	UBH (D)	Date: Date:	4/30/22 S/2/22
-					•		Kit packed & shipped by:		Date:	5/2/22
	Filename:	SKIT_ADEC_DEC WHADA _2022-04-26	*Required Items		•					5/2/0305
No.							Preservative	Hold	# QC	Total
Samples	Matrix	Analysis		Size & Type	Pres.	Bottle Lot #	Lot #	Time	Bottles	Bottles
20	Water	SM9222D - Fecal Coliform	1 x 125 mL	Sterile HDPE	Na2SO4	•		8 hr	0	20
20	Water	SM9223B - E. Coli	1 x 125 mL	Sterile HDPE	Na2SO4			30 hr	0	20
22	Water	245.1 - Total Hg	1 x 125 mL	HDPE	HNO3			28 d	0	22
22	Water	200.8 - Dissolved Metals (Lab Filter)	1 x 125 mL	HDPE	None			14 d	0	22
22	Water	2340B - Total Hardness	1 x 125 mL	HDPE	HNO3			180 d	0	22
22	Water	5310B - DOC (Lab Filter)	1 x 125 mL	Amber	None			ASAP	0	22
22	Water	SM4500 - T-Phos, NO2+NO3, TKN	1 x 250 mL	HDPE	H2SO4			28 d	0	22
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Note: The first 10 Analysis and Preservative columns will auto-fill up to the capacity of the associated COC.

A	dditional Information	Notes for Kit Prep	Attention Client/Sampler:		
Pack for Shipment via:	N/A	-	1. Do not rinse container, be aware of any acid preservative.		
Temperature Blank:	Yes - Small (125 mL)		2. Fill container, but do not overfill (except volatiles).		
Trip Blank:	No	5,	3. Label the container with your sample ID and date/time of collection		
Coolers:	Yes	3 Large Coolers per client phone call - CDM	4. Fill out the Chain of Custody.		
Gel Ice:	Yes		5. Add frozen gel packs to your cooler and pack to prevent breakage.		
Labels:	Yes		If you have any questions please contact your Project Manager,		
Custody Seals:	Yes				
Paper Chain of Custody:	No - Electronic or Client will Provide COC		-		
Lot Number Tracking (Required for DOD):	No				



Project Information Form

This form provides clarification and/or additional information for sample login, and should be scanned with the receiving paperwork.

Client Name:	ADEC
Project:	WHADA
Date:	5/4/2022
Reason for	Analytical requests
Clarification:	
Notes:	Total Hg = 245.1 <ref lab=""></ref>
	Dissolved Metals = 200.8 Dissolved Metals Scan (needs Lab Filter + preservation)
	T.Phos/N = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite- N, and 4500 TKN
	DOC also needs Lab Filter + preservation
	E. coli = LT2 Quantitray

COC	e-Sam	ole Receipt Form		
SGS	SGS Workorder #:	1222	042	1222042
R	eview Criteria	Condition (Yes, No, N/A	Exce	ptions Noted below
	dy / Temperature Requirements		nperature and COC seal in	formation is found on the chain of custody form
DOD only: Did all s	ample coolers have a corresponding			
	If <0°C, were sample containers ice			
	Note containers receive	ed with ice:		
Identify any co	ntainers received at non-compliant te (Use form FS-0029 if more space			
•	entation / Sample Condition Rec		r to form F-083 "Sample Gu	de" for specific holding times and sample containers.
	oles received within analytical holding labels match COC? Record discrepa			
Note: If information on	containers differs from COC, default nes differ <1hr, record details & login	to COC		
	Were analytical requests			
	or analyses with multiple option for m 1 vs 8260, Metals 6020 vs 200.8)	ethod		
	ers (type/mass/volume/preservative) r metals analysis by 200.8/6020 in wa	ater. 1ml of H	INO3 lot# LW09-046	npreserved. Proceeded to preserve with 33-19-04. DOC received unpreserved. 1ml of HCL Lot # LW09-0463-17-15
Volatile Analysis R	equirements (VOC, GRO, LL-Hg	g, etc.)		
Vere all soil VOAs receive	d with a corresponding % solids cont	ainer? N/A		
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with sar	nples? N/A		
	s free of headspace (e.g., bubbles ≤ 6			
	VOAs field extracted with Methanol-			
Note to Client: Ar	ny "No", answer above indicates non-		·	and may impact data quality.
	Additional	notes (if applica	ble):	



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222042001-A 1222042001-B 1222042001-C 1222042001-D 1222042001-E 1222042001-F 1222042002-A 1222042002-B	HNO3 to pH < 2 H2SO4 to pH < 2 HNO3 to pH < 2 HCL to pH < 2 Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu HNO3 to pH < 2 H2SO4 to pH < 2	OK OK OK PA OK OK OK OK			Condition
1222042002-C 1222042002-D 1222042003-A 1222042004-A	HNO3 to pH < 2 HCL to pH < 2 HNO3 to pH < 2 HNO3 to pH < 2	OK PA PA PA			

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.



Orlando, FL

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

Technical Report for

SGS North America, Inc

1222042

SGS Job Number: FA95485



Sampling Date: 05/04/22

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: 17



Norme Farm

Norm Farmer Technical Director

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.

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 This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

SGS North America Inc. • 4405 Vineland Road • Suite C-15 • Orlando, FL 32811 • tel: 407-425-6700 • fax: 407-425-0

Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



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05/12/22

e-Hardcopy 2.0 Automated Report

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Sample Summary

SGS North America, Inc

1222042

Job No: FA95485

Sample	Collected			Matr	ix	Client
Number	Date	Time By	Received	Code	Туре	Sample ID
FA95485-1	05/04/22	13:10	05/06/22	AQ	Water	CAM 6
FA95485-2	05/04/22	11:25	05/06/22	AQ	Water	ANCHBACT 20-01



Page 40 of 54

GS

SAMPLE DELIVERY GROUP CASE NARRATIVE

	Client:	SGS North America, Inc	Job No:	FA95485
	Site:	1222042	Report Date:	5/12/2022 11:36:16 AM
.	05/06/2022	$2 $ $S_{-m-1}(x) $ $0 $ $T_{m-1}(x) $ $D_{1-m-1}(x) $ $z_{m-1}(x) $ $D_{1-m-1}(x) $ $z_{m-1}(x) $ $d_{m-1}(x) $ $d_{m-1}(x) $	Mauth Amarian I.	· · · Orlanda et a

On 05/06/2022, 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 4.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA95485 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: MP40675

Sample(s) TD81332-1DUP, TD81332-1MS, TD81332-1MSD, TD81332-1SDL 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.

Narrative prepared by:

Kim Benham, Client Services (Signature on File)

Summary of Hits Job Number: FA95485

Job Number:FA95485Account:SGS North America, IncProject:1222042Collected:05/04/22

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

FA95485-1 CAM 6

No hits reported in this sample.

FA95485-2 ANCHBACT 20-01

No hits reported in this sample.

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Orlando, FL

4

Sample Results

Report of Analysis



SGS North America Inc.

					Rep	ort of A	nalysis			Page 1 of 1
Client Samp Lab Sample Matrix:	ID:	CAM FA954 AQ - V	485-1						Date Sampled: Date Received: Percent Solids:	05/04/22 05/06/22 n/a
Project:		122204	42						rercent sonus.	11/ a
Total Metals	s Analys	sis								
Analyte	Res	ult	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.	.50	0.50	ug/l	1	05/11/22	05/11/22	JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18664
 (2) Prep QC Batch: MP40675



SGS North America Inc.

					Rep	ort of A	nalysis			Page 1 of 1
Client Sample Lab Sample I Matrix:		ANCH FA954 AQ - V		0-01					Date Sampled: Date Received: Percent Solids:	05/04/22 05/06/22 n/a
Project:		122204	42						i ci cent Sonus.	10 4
Total Metals	Analy	sis								
Analyte	Res	sult	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0	0.50	0.50	ug/l	1	05/11/22	05/11/22	JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18664
 (2) Prep QC Batch: MP40675

4.2

4





Orlando, FL

Section 5

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody

SGS North America Inc. CHAIN OF CUSTODY RECORD



Locations Nationwide Florida Alaska New Jersey Colorado

North Carolina

5 -1

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CLIENT:	SGS North Ame	erica Inc Alas	ska Division		SGS	Refere	nce:			S	GS (Orla	ndo, FL		Page 1 of 1
CONTACT:	Julie Shumway	PHONE NO:	(907) 56	2-2343	Addi	tional	Comn	nents	: All s	soils	repo	rt out	t in dry weigh	nt unless	Fage For F
PROJECT	4000040	PWSID#:			#	Preserv-									
NAME:	1222042	NPDL#:			c	ative Used:	41403								
REPORTS TO:	Julie Shumway	E-MAIL:	Julie.Shumwa	ay@sgs.con		TYPE									
		Env.Alaska.	RefLabTeam(@sgs.com	N T	C = COMP	gal								
INVOICE TO:	SGS - Alaska	QUOTE #:			A	G = GRAB	245.1, Total								
env.alask	a.accounting@sgs.com	P.O. #:	1222	042	I N	MI = Multi	245.								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	ТІМЕ ННММ	MATRIX/ MATRIX CODE	E R S	munt Incre- mental Soils	Mercury 2				мs	MSD	SGS lab #	ı	ocation ID
1	Cam 6	05/04/2022	13:10:00	Water	1		Х						1222042001		
2	AnchBact 20-01	05/04/2022	11:25:00	Water	1		Х						1222042002		
						-						<u> </u>			
										-					
				-		-		-			_	-			
						Ĺ									
Relinquished	By: (1)	Date	Time	Received	By:				DOD P	roject	t?		NO	Data Deliver	able Requirements:
1 Shu	MUHR I	5/5/20	0850	G	lor 1	4-D	lave	to	Report If J- Rep	t to DI ort as I	L (J Fli DL/LOD	ags)? /LOQ.	NO		Level 2
Relinquished	By: (2)	Date	Time	Received			1		Cooler						
		EU1	1445						Req	luest	ted Tu	urnar	ound Time a	nd-or Spec	ial Instructions:
Della suisked I	B (2)	5/6/22 Date		512		_	_								
Relinquished	ву: (з)	Date	Time	Received	ву:				Temp I	Blank	°C: 🗸	4.4	ONI	Chain of C	ustody Seal: (Circle)
Relinquished	Ву: (4)	Date	Time	Received	For La	oratory	By:					nbient			BROKEN ABSENT
											0 70	indicin			NOREN ABOENI
V COOLUL D		40 T L (007) (00.0040.5	(007) 504	5004	_	_								
	ter Drive Anchorage, AK 995 ness Drive Wilmington, NC 2	• • •		• •					http://v	www.s	sgs.co	m/tern	ns and conditi	ons.htm	D A
	iess brive Willington, No 2	0400 101. (010)	000-1000 11	IX. (010) 00	0-1007										SYM
													INITIAL	ASSESSME	NT
															6.
													ADEL	VERIFICATIO	m om
					F088	COC_RE	F LAB	20190)411				CABEL	AEKULICALI	

FA95485: Chain of Custody Page 1 of 2



SGS Sample Receipt Summary

Job Number: FA95	5485		Client	: ALASKA		Project: 1222042			
Date / Time Received: 5/6/2	022 2:45:	00 PM		Deliver	/ Method: FED EX	Airbill #'s: 1483 4802	2 2542		
Therm ID: IR 1;				Therm (CF: 0.4;	# of Coole	rs: N/A		
Cooler Temps (Raw Meas	ured) °C:	Cool	er 1: (4.	4);					
Cooler Temps (Corre	cted) °C:	Cool	er 1: (4.	8);					
Cooler Information	Y	or	N		Sample Information		Y or	N	N/A
1. Custody Seals Present	\checkmark				1. Sample labels presen	t on bottles	\checkmark		
2. Custody Seals Intact	\checkmark				2. Samples preserved p	roperly			
3. Temp criteria achieved					3. Sufficient volume/con	tainers recvd for analysis:	\checkmark		
4. Cooler temp verification	<u>N/A</u>	4			4. Condition of sample		Intact		
5. Cooler media	N/A	<u>\</u>			5. Sample recvd within H	ΗT	\checkmark		
					6. Dates/Times/IDs on C	COC match Sample Label	\checkmark		
rip Blank Information	Y	or	N	N/A	7. VOCs have headspace	ce			\checkmark
1. Trip Blank present / cooler				\checkmark	8. Bottles received for un	nspecified tests		\checkmark	
2. Trip Blank listed on COC				\checkmark	9. Compositing instruction	ons clear			\checkmark
	w	or	c	N/A	10. Voa Soil Kits/Jars re	ceived past 48hrs?			\checkmark
		- 01			11. % Solids Jar receive	:d?			
3. Type Of TB Received				\checkmark	12. Residual Chlorine Pr	resent?			\checkmark
Misc. Information									
Number of Encores: 25-G	Gram		5-Gram		Number of 5035 Field Kits:	Number of La	ab Filtered M	etals:	
Test Strip Lot #s:	pH 0-3	3	2303	15	pH 10-12 219813A				
Residual Chlorine Test Strip									
Comments									
SM001 Rev. Date 05/24/17 Techni	ician: CA	RLOSE)	Date:	5/6/2022 2:45:00 PM	Reviewer:		Date:	

FA95485: Chain of Custody Page 2 of 2





Orlando, **FL**

Section 6

Metals Analysis

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: FA95485 Account: SGSAKA - SGS North America, Inc Project: 1222042

QC Batch ID: MP40675 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:					05/11/22
Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.029	<0.50

Associated samples MP40675: FA95485-1, FA95485-2

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

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Login Number: FA95485 Account: SGSAKA - SGS North America, Inc Project: 1222042

QC Batch ID: Matrix Type:					Methods: EPA 245.1 Units: ug/l					
Prep Date:			05/11/22					05/11/22		
Metal	TD81332- Original		RPD	QC Limits	TD81332- Original		Spikelot HGFLWS1		QC Limits	
Mercury	0.0	0.0	NC	0-10	0.0	2.9	3	96.7	70-130	

Associated samples MP40675: FA95485-1, FA95485-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6



FA95485

Login Number: FA95485 Account: SGSAKA - SGS North America, Inc Project: 1222042

QC Batch ID: MP40675	Methods: EPA 245.1
Matrix Type: AQUEOUS	Units: ug/l
Prep Date:	05/11/22

Metal	TD81332- Original		Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	

Associated samples MP40675: FA95485-1, FA95485-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits (anr) Analyte not requested

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Login Number: FA95485 Account: SGSAKA - SGS North America, Inc Project: 1222042

QC Batch ID: MP40675 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:			05/11/22	
Metal	BSP Result	Spikelot HGFLWS1		QC Limits
Mercury	2.9	3	96.7	85-115

Associated samples MP40675: FA95485-1, FA95485-2

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

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SERIAL DILUTION RESULTS SUMMARY

Login Number: FA95485 Account: SGSAKA - SGS North America, Inc Project: 1222042

QC Batch ID Matrix Type				s: EPA 245.1 s: ug/l	
Prep Date:		05/11/22			
Metal	TD81332-1 Original SDL 1:5	%DIF	QC Limits		

Mercury 0.00 0.00 NC 0-10

Associated samples MP40675: FA95485-1, FA95485-2

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

6.1.4

6





Laboratory Report of Analysis

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

Report Number: 1222045

Client Project: DEC 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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/31/2022 2:45:24PM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

Member of SGS Group



Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222045 Project Name/Site: DEC WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

MB for HBN 1836326 [MXX/35114] (1664384) MB

200.8 - Metals analyte Aluminum is detected in the MB above the LOQ. The associated sample concentrations are greater than 5X the concentration of the contamination.

1222069001MS (1664703) MS

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

1222069001MSD (1664704) MSD

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

1222120008MS (1664705) MS

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

1222120008MSD (1664706) MSD

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

1222042001MSD (1665112) MSD

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 - MSD recovery was outside of QC criteria. Refer to the LCSD for accuracy. Mercury 245.1 Total were 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.

Print Date: 05/31/2022 2:45:26PM

SGS North America Inc.

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

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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.
В	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.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content.

Print Date: 05/31/2022 2:45:28PM

Note:



SM23 4500-N D SM21 4500P-B,E

	:	Sample Summary	,	
Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>
Che 33	1222045001	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Che 33 DUP	1222045002	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Che 3	1222045003	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Che 33	1222045004	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
Che 3	1222045005	05/04/2022	05/04/2022	Water (Surface, Eff., Ground)
<u>Method</u>	Method Des	scription		
SM21 9223B	E Coli LT2 (Colilert Quant)		
SM21 9222D	Fecal Colifo	orm (MF)		
SM21 2340B	Hardness as	s CaCO3 by ICP-N	ЛS	
EP200.8	Metals in W	ater by 200.8 ICP	-MS	
SM21 4500NO3-F	Nitrate/Nitrit	te Flow injection P	res.	

TKN by Phenate (W)

Total Phosphorus (W)

Print Date: 05/31/2022 2:45:29PM



Detectable F	Results	Summary
--------------	---------	---------

Client Sample ID: Che 33			
Lab Sample ID: 1222045001	Parameter	Result	<u>Units</u>
Metals by ICP/MS	Calcium	21800	ug/L
	Hardness as CaCO3	71.2	mg/L
	Magnesium	4090	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.626	mg/L
Client Sample ID: Che 3			
Lab Sample ID: 1222045003	<u>Parameter</u>	Result	<u>Units</u>
Metals by ICP/MS	Calcium	43500	ug/L
-	Hardness as CaCO3	148	mg/L
	Magnesium	9500	ug/L
Microbiology Laboratory	E. Coli	10	MPN/100mL
	Fecal Coliform	8.3	col/100mL
Waters Department	Total Nitrate/Nitrite-N	1.15	mg/L

Print Date: 05/31/2022 2:45:31PM

SGS North America Inc.

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

Client Sample ID: Che 33 Client Project ID: DEC WHADA Lab Sample ID: 1222045001 Lab Project ID: 1222045	Collection Date: 05/04/22 10:50 Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Metals by ICP/MS <u>Parameter</u> Calcium Magnesium	<u>Result Qual</u> 21800 4090	<u>LOQ/CL</u> 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	<u>DF</u> 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 16:37 05/19/22 16:37
Batch Information Analytical Batch: MMS11558 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/19/22 16:37 Container ID: 1222045001-B			Prep Methoo Prep Date/T Prep Initial V	MXX35114 d: E200.2 ime: 05/19/2 Vt./Vol.: 20 t Vol: 50 mL	mL		
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 71.2	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 05/19/22 16:37
Batch Information Analytical Batch: MMS11558 Analytical Method: SM21 2340B Analyst: DSD Analytical Date/Time: 05/19/22 16:37 Container ID: 1222045001-B			Prep Methoo Prep Date/T Prep Initial V	MXX35114 d: E200.2 ime: 05/19/2 Vt./Vol.: 20 n t Vol: 50 mL	mL		

Print Date: 05/31/2022 2:45:32PM

Results of Che 33 Client Sample ID: Che 33 Client Project ID: DEC WHADA Lab Sample ID: 1222045001 Lab Project ID: 1222045 Results by Waters Department				Collection Date: 05/04/22 10:50 Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
<u>Result Qual</u> 0.626	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 12:0				
<u>Result Qual</u> 0.0400 U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/17/22 13:1				
		Prep Method: Prep Date/Tir Prep Initial W	: SM21 450 me: 05/17/2 /t./Vol.: 25	00P-B,E 22 10:30 mL						
<u>Result Qual</u> 1.00 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/23/22 09:4				
		Prep Method: Prep Date/Tir Prep Initial W	: METHOD me: 05/20/2 /t./Vol.: 25	22 11:30 mL						
	0.626 Result Qual 0.0400 U	Result Qual LOQ/CL 0.626 0.200 Result Qual LOQ/CL 0.0400 U 0.0400 Result Qual LOQ/CL 0.0400 U 0.0400	Result Qual LOQ/CL DL 0.626 0.200 0.0500 Result Qual LOQ/CL DL 0.626 0.200 0.0500 Result Qual LOQ/CL DL 0.0400 U 0.0400 0.0120 Prep Batch: Prep Method Prep Initial W Prep Extract Result Qual LOQ/CL DL 1.00 U 1.00 DL 0.310 Prep Batch: Prep Method Prep Date/Tin Prep Date/Tin Prep Date/Tin Prep Date/Tin Prep Method Prep Date/Tin Prep Date/Tin Prep Method Prep Date/Tin Prep Date/Tin Prep Method Prep Pate/Tin Prep Method Prep Nethod Prep Method Prep Nethod <td>Received Date: 05/04// Matrix: Water (Surface, Solids (%): Location: Result Qual LOQ/CL DL Units 0.626 0.200 0.0500 mg/L Result Qual LOQ/CL DL Units 0.626 0.200 0.0500 mg/L Prep Batch: WXX14205 mg/L Prep Date/Time: 05/17/2 Prep Date/Time: 05/17/2 Prep Initial Wt./Vol.: 25 mg/L Result Qual LOQ/CL DL Units No U 1.00 0.310 mg/L Prep Batch: WXX14215 Prep Method: MT Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Initial Wt./Vol.: 25 mg/L Prep Date/Time: 05/20/2</td> <td>Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Grossolids (%): Location: Result Qual LOQ/CL DL Units DE 0.626 0.200 0.0500 mg/L 2 Result Qual LOQ/CL DL Units DE 0.626 0.200 0.0500 mg/L 2 Result Qual LOQ/CL DL Units DE 0.0400 U 0.0400 0.0120 mg/L 1 Prep Batch: WXX14205 Prep Method: SM21 4500P-B,E Prep Date/Time: 05/17/22 10:30 Prep Date/Time: 05/17/22 10:30 Prep Extract Vol: 25 mL Prep Extract Vol: 25 mL</td> <td>Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Ground) Solids (%): Location: Result Qual LOQ/CL DL Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 D. Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 D. Units DE Allowable Imits Prep Batch: WXX14205 Prep Prep Date/Time: 05/17/22 10:30 Prep Date/Time: 05/17/22 10:30 Prep Initial WL/Vol:: 25 mL Prep Extract Vol: 25 mL Prep Extract Vol: 25 mL Allowable I.00 U 1.00 0.310 mg/L 1 Allowable Prep Method: MICL WIL Prep Method: Start Prep Date/Time: 05/17/22 10:30 Prep Prep Prep Prep Prep Prep Prep Prep</td>	Received Date: 05/04// Matrix: Water (Surface, Solids (%): Location: Result Qual LOQ/CL DL Units 0.626 0.200 0.0500 mg/L Result Qual LOQ/CL DL Units 0.626 0.200 0.0500 mg/L Prep Batch: WXX14205 mg/L Prep Date/Time: 05/17/2 Prep Date/Time: 05/17/2 Prep Initial Wt./Vol.: 25 mg/L Result Qual LOQ/CL DL Units No U 1.00 0.310 mg/L Prep Batch: WXX14215 Prep Method: MT Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Date/Time: 05/20/2 Prep Initial Wt./Vol.: 25 mg/L Prep Date/Time: 05/20/2	Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Grossolids (%): Location: Result Qual LOQ/CL DL Units DE 0.626 0.200 0.0500 mg/L 2 Result Qual LOQ/CL DL Units DE 0.626 0.200 0.0500 mg/L 2 Result Qual LOQ/CL DL Units DE 0.0400 U 0.0400 0.0120 mg/L 1 Prep Batch: WXX14205 Prep Method: SM21 4500P-B,E Prep Date/Time: 05/17/22 10:30 Prep Date/Time: 05/17/22 10:30 Prep Extract Vol: 25 mL Prep Extract Vol: 25 mL	Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Ground) Solids (%): Location: Result Qual LOQ/CL DL Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 D. Units DE Allowable 0.626 0.200 DL Units DE Allowable 0.626 0.200 D. Units DE Allowable Imits Prep Batch: WXX14205 Prep Prep Date/Time: 05/17/22 10:30 Prep Date/Time: 05/17/22 10:30 Prep Initial WL/Vol:: 25 mL Prep Extract Vol: 25 mL Prep Extract Vol: 25 mL Allowable I.00 U 1.00 0.310 mg/L 1 Allowable Prep Method: MICL WIL Prep Method: Start Prep Date/Time: 05/17/22 10:30 Prep Prep Prep Prep Prep Prep Prep Prep				

COC

Results of Che 3 Client Sample ID: Che 3 Client Project ID: DEC WHADA Lab Sample ID: 1222045003 Lab Project ID: 1222045	C F M S L						
Results by Metals by ICP/MS Parameter Calcium Magnesium	<u>Result Qual</u> 43500 9500	<u>LOQ/CL</u> 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	<u>DF</u> 1 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 05/19/22 16:40 05/19/22 16:40
Batch Information Analytical Batch: MMS11558 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/19/22 16:40 Container ID: 1222045003-B			Prep Metho Prep Date/T Prep Initial \	MXX35114 d: E200.2 ime: 05/19/2 Wt./Vol.: 20 t Vol: 50 mL	mL		
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 148	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/19/22 16:40
Batch Information Analytical Batch: MMS11558 Analytical Method: SM21 2340B Analyst: DSD Analytical Date/Time: 05/19/22 16:40 Container ID: 1222045003-B			Prep Metho Prep Date/T Prep Initial \	MXX35114 d: E200.2 ïime: 05/19/2 Nt./Vol.: 20 t Vol: 50 mL	mL		

Print Date: 05/31/2022 2:45:32PM

Results of Che 3 Client Sample ID: Che 3 Client Project ID: DEC WHADA Lab Sample ID: 1222045003 Lab Project ID: 1222045	Collection Date: 05/04/22 12:50 Received Date: 05/04/22 13:54 Matrix: Water (Surface, Eff., Ground) Solids (%):						
Results by Microbiology Laboratory		Lo	ocation:				
Parameter Fecal Coliform	<u>Result Qual</u> 8.3	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> col/100mL	<u>DF</u> 1	<u>Allowable</u> Limits	<u>Date Analyze</u> 05/04/22 18:1
Batch Information							
Analytical Date/Time: 05/04/22 18:10 Container ID: 1222045003-E Parameter E. Coli	<u>Result Qual</u> 10	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100n	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 05/04/22 17:5
Batch Information							
Analytical Batch: BTF19518 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/04/22 17:50 Container ID: 1222045003-F							

Print Date: 05/31/2022 2:45:32PM

Results of Che 3 Client Sample ID: Che 3 Client Project ID: DEC WHADA Lab Sample ID: 1222045003 Lab Project ID: 1222045	P	F T S	Collection Da Received Dat Matrix: Water Solids (%): _ocation:	te: 05/04/2	22 13:54		
Results by Waters Department			_			Allowable	
P <u>arameter</u> Fotal Nitrate/Nitrite-N	<u>Result Qual</u> 1.15	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	<u>DF</u> 2	Limits	<u>Date Analyzec</u> 05/19/22 12:09
Batch Information							
Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 12:05 Container ID: 1222045003-D							
Parameter	Result Qual	LOQ/CL	DL	Units	DF	<u>Allowable</u> Limits	Date Analyzed
Total Phosphorus	0.0400 U	0.0400	0.0120	mg/L	1	Limita	05/17/22 13:1:
Batch Information							
Analytical Batch: WDA5203 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/17/22 13:12 Container ID: 1222045003-D			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: SM21 450 me: 05/17/2 t./Vol.: 25 i	00P-B,E 22 10:30 mL		
P <u>arameter</u> Fotal Kjeldahl Nitrogen	<u>Result Qual</u> 1.00 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/23/22 10:03
Batch Information							
Analytical Batch: WDA5209 Analytical Method: SM23 4500-N D Analyst: DMM Analytical Date/Time: 05/23/22 10:03 Container ID: 1222045003-D			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 05/20/2 't./Vol.: 25 i	22 11:30 mL		
Analytical Date/Time: 05/23/22 10:03			Prep Initial W	't./Vol.: 25 i	mL		

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- Method Blank							
Blank ID: MB for HBN			Matrix: Water (Surface, Eff., Ground)				
	D						
Parameter Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL			
Batch Information Analytical Batch: BTF Analytical Method: SI Instrument: Analyst: M.A Analytical Date/Time:							

Print Date: 05/31/2022 2:45:34PM

	_						
Method Blank							
Blank ID: MB for HB Blank Lab ID: 16626	N 1835752 [BTF/19518] 347	Matrix: Water (Surface, Eff., Ground)					
QC for Samples: 1222045003							
Results by SM21 92							
<u>Parameter</u> E. Coli	<u>Results</u> 1U	<u>LOQ/CL</u> 1	<u>DL</u> 1	<u>Units</u> MPN/100m			
Batch Information]						
Analytical Batch: E Analytical Method: Instrument: Analyst: M.A Analytical Date/Tim							

Print Date: 05/31/2022 2:45:38PM

Results by EP200.8					
a <u>rameter</u> alcium lagnesium	<u>Results</u> 250U 25.0U	<u>LOQ/CL</u> 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	
Analytical Batch: MMS11558 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD Analytical Date/Time: 5/19/2022 3:27:25PM		Prep Me Prep Da Prep Ini	ttch: MXX35114 ethod: E200.2 ite/Time: 5/19/2 tial Wt./Vol.: 20 tract Vol: 50 mL	022 9:07:31AM mL	

Print Date: 05/31/2022 2:45:43PM



I			
Blank Spike Summary			
Blank Spike ID: LCS for HBN Blank Spike Lab ID: 1664385 Date Analyzed: 05/19/2022		4]	
			Matrix: Water (Surface, Eff., Ground)
QC for Samples: 12220450	01, 1222045003		
Results by EP200.8			
	Blank Spike	e (ug/L)	
<u>Parameter</u>	Spike Result	<u>Rec (%)</u>	CL
Calcium	10000 9990	100	(85-115)
Magnesium	10000 10200	102	(85-115)
Batch Information			
Analytical Batch: MMS11558 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD			Prep Batch: MXX35114 Prep Method: E200.2 Prep Date/Time: 05/19/2022 09:07 Spike Init Wt./Vol.: 10000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

Print Date: 05/31/2022 2:45:45PM



Matrix Spike Summary

Original Sample ID: 1664377 MS Sample ID: 1664388 MS MSD Sample ID: Analysis Date: 05/19/2022 15:40 Analysis Date: 05/19/2022 15:43 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222045001, 1222045003

		Ma	trix Spike (ug/L)	Spik	e Duplicat	e (ug/L)			
Parameter	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Calcium	59900	10000	68000	81				70-130		
Magnesium	16900	10000	26300	93				70-130		
Batch Information Analytical Batch: MMS11 Analytical Method: EP20 Instrument: P7 Agilent 78 Analyst: DSD Analytical Date/Time: 5/1	0.8 300	PM		Prep Prep Prep	Method: Date/Tin Initial W	0	st for Metals 022 9:07:3 00mL		IS	

Print Date: 05/31/2022 2:45:46PM

Method Blank						
Blank ID: MB for HBN 183 Blank Lab ID: 1664718	36364 (WFI/2989)	Matrix: Water (Surface, Eff., Ground)				
QC for Samples:						
Results by SM21 4500NO3-F]				
Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>		
Nitrate-N Nitrite-N	0.100U 0.100U	0.200 0.200	0.0500 0.0500	mg/L mg/L		
otal Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L		
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm	4500NO3-F nented flow					
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					
Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F nented flow					

Print Date: 05/31/2022 2:45:51PM

Blank ID: MB for HBN 18 Blank Lab ID: 1664724 QC for Samples: 222045001, 1222045003				ce, Eff., Ground)	
Results by SM21 4500NC)3-F				
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Results</u> 0.100U 0.106J 0.100U	<u>LOQ/CL</u> 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	
Analytical Batch: WFI29 Analytical Method: SM2 Instrument: Astoria segr Analyst: EBH Analytical Date/Time: 5/	1 4500NO3-F nented flow				

Blank ID: MB for HBN 183 Blank Lab ID: 1664730 QC for Samples: 1222045001, 1222045003	30304 (WF1/2989)	Math	c. water (Suria	e, Eff., Ground)	
Results by SM21 4500NC)3-F				
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Results</u> 0.100U 0.100U 0.100U	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	
atch Information Analytical Batch: WFI29 Analytical Method: SM2 Instrument: Astoria segn Analyst: EBH Analytical Date/Time: 5/	1 4500NO3-F nented flow				



Bla	ank	Spike	Summary
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Blank Spike ID: LCS for HBN 1222045 [WFI2989] Blank Spike Lab ID: 1664720 Date Analyzed: 05/19/2022 13:17

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

	I	Blank Spike	e (mg/L)
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>
Nitrate-N	2.5	2.59	104
Nitrite-N	2.5	2.56	102
Total Nitrate/Nitrite-N	5	5.15	103

Batch Information

Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH

Print Date: 05/31/2022 2:45:53PM



Date Analyzed: 05/19/2 QC for Samples: 122	4726 2022 12:31 2045001, 122204	45003		Matrix: Water (Surface, Eff., Ground)
Results by SM21 4500N	03-F			
		Blank Spike	e (mg/L)	
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>
Nitrate-N	2.5	2.61	104	(70-130)
Nitrite-N	2.5	2.60	104	(90-110)
Total Nitrate/Nitrite-N	5	5.20	104	(90-110)
Batch Information Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segr Analyst: EBH	4500NO3-F			

Print Date: 05/31/2022 2:45:53PM



Results by SM21 4500NO3-F Blank Spike (mg/L) Parameter Spike Result Rec (%) CL Nitrate-N 2.5 2.49 100 (70-130) Nitrite-N 2.5 2.52 101 (90-110) Total Nitrate/Nitrite-N 5 5.01 100 (90-110) Batch Information Analytical Batch: WFI2989 Kanalytical Method: SM21 4500NU3-F Instrument: Astoria segmented flow	Date Analyzed: 05/19/2 QC for Samples: 1222	022 11:46 2045001, 1222045	5003		Matrix: Water (Surface, Eff., Ground)
ParameterSpikeResultRec (%)CLNitrate-N2.52.49100(70-130)Nitrite-N2.52.52101(90-110)Total Nitrate/Nitrite-N55.01100(90-110)Batch InformationAnalytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow	Results by SM21 4500NC)3-F			
Nitrate-N 2.5 2.49 100 (70-130) Nitrite-N 2.5 2.52 101 (90-110) Total Nitrate/Nitrite-N 5 5.01 100 (90-110) Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Instrument: Astoria segmented flow Instrument: Astoria segmented flow		В	lank Spike	(mg/L)	
Nitrite-N 2.5 2.52 101 (90-110) Total Nitrate/Nitrite-N 5 5.01 100 (90-110) Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow	<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>
Total Nitrate/Nitrite-N 5 5.01 100 (90-110) Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow	Nitrate-N	2.5	2.49	100	(70-130)
Batch Information Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow	Nitrite-N	2.5	2.52	101	(90-110)
Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow	Total Nitrate/Nitrite-N	5	5.01	100	(90-110)
Analyst: EBH		4500NO3-F			

Print Date: 05/31/2022 2:45:53PM



Matrix Spike Summary Original Sample ID: 1222069001 Analysis Date: 05/19/2022 11:51 MS Sample ID: 1664703 MS Analysis Date: 05/19/2022 11:53 MSD Sample ID: 1664704 MSD Analysis Date: 05/19/2022 11:54 Matrix: Drinking Water QC for Samples: 1222045001, 1222045003 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL Total Nitrate/Nitrite-N 0.763 5.00 6.44 114 * 5.00 6.40 113 * 90-110 0.70 (< 25) **Batch Information** Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 11:53:00AM

Print Date: 05/31/2022 2:45:55PM

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Matrix Spike Summary Original Sample ID: 1222120008 Analysis Date: 05/19/2022 12:36 MS Sample ID: 1664705 MS Analysis Date: 05/19/2022 12:38 MSD Sample ID: 1664706 MSD Analysis Date: 05/19/2022 12:40 Matrix: Drinking Water QC for Samples: 1222045001, 1222045003 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL Total Nitrate/Nitrite-N 0.200U 5.00 5.62 112 * 5.00 5.64 113 * 90-110 0.35 (< 25) **Batch Information** Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 12:38:00PM

Print Date: 05/31/2022 2:45:55PM

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Matrix Spike Summary

Original Sample ID: 1222386003 MS Sample ID: 1664709 MS MSD Sample ID: 1664710 MSD Analysis Date: 05/19/2022 11:05 Analysis Date: 05/19/2022 11:07 Analysis Date: 05/19/2022 11:09 Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 450	00NO3-F		_							$ \longrightarrow $
		Ма	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Nitrate-N	2.76	2.50	5.11	94	2.50	5.17	96	70-130	1.10	(< 25)
Nitrite-N	0.200U	2.50	2.74	110	2.50	2.75	110	90-110	0.12	(< 25)

Batch Information

Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 11:07:34AM

Print Date: 05/31/2022 2:45:55PM

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Method Blank					
Blank ID: MB for HBN Blank Lab ID: 1664342	1836316 [WXX/14205]	Matriz	x: Water (Surfac	ce, Eff., Ground)	
QC for Samples: 1222045001, 122204500	3				
Results by SM21 4500	P-B,E				
<u>Parameter</u> Total Phosphorus	<u>Results</u> 0.0200U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	
atch Information					
Analytical Batch: WD Analytical Method: SI Instrument: Discrete Analyst: RJC	M21 4500P-B,E	Prep Me Prep Da Prep Ini	tch: WXX14205 ethod: SM21 450 tte/Time: 5/17/20 tial Wt./Vol.: 25 r tract Vol: 25 mL	22 10:30:00AM	

Print Date: 05/31/2022 2:45:56PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222045 [WXX14205] Blank Spike Lab ID: 1664343 Date Analyzed: 05/17/2022 12:51 Spike Duplicate ID: LCSD for HBN 1222045 [WXX14205] Spike Duplicate Lab ID: 1664344 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222045001, 1222045003

Results by SM21 4500P-B,E											
	1	Blank Spike	x Spike (mg/L) Spike Duplicate (mg/L)								
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL		
Total Phosphorus	0.2	0.203	101	0.2	0.193	97	(75-125)	4.80	(< 25)		
Batch Information Analytical Batch: WDA5203 Analytical Method: SM21 4500P Instrument: Discrete Analyzer 2 Analyst: RJC	,			Pre Pre Spil	p Date/Tim ke Init Wt./\	SM21 4500F e: 05/17/202 /ol.: 0.2 mg	,				

Print Date: 05/31/2022 2:45:58PM



Matrix Spike Summary

Original Sample ID: 1221998021 MS Sample ID: 1664345 MS MSD Sample ID: 1664346 MSD

QC for Samples: 1222045001, 1222045003

Analysis Date: 05/17/2022 12:58 Analysis Date: 05/17/2022 13:01 Analysis Date: 05/17/2022 13:02 Matrix: Water (Surface, Eff., Ground)

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	<u>Result</u>	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Total Phosphorus	0.0200U	0.200	.2	100	0.200	0.196	98	75-125	1.80	(< 25)
Analytical Batch: WDA52 Analytical Method: SM21 Instrument: Discrete Ana Analyst: RJC Analytical Date/Time: 5/1	4500P-B,E yzer 2		Prep Prep Prep	Method: Date/Tin Initial Wi		osphorus (W 022 10:30:0 00mL	/			

Print Date: 05/31/2022 2:46:00PM

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Method Blank					
Blank ID: MB for HBN 183 Blank Lab ID: 1665108	6498 [WXX/14215]	Matrix	x: Water (Surf	ace, Eff., Ground)	
QC for Samples: 1222045001, 1222045003					
Results by SM23 4500-N E)				
<u>Parameter</u>	Results	LOQ/CL	<u>DL</u>	<u>Units</u>	
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L	
Batch Information					
Analytical Batch: WDA52			tch: WXX1421		
Analytical Method: SM23			ethod: METHO	2022 11:30:00AM	
	y201 2		tial Wt./Vol.: 25		
Instrument: Discrete Anal Analyst: DMM		Prep Ini			

Print Date: 05/31/2022 2:46:01PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222045 [WXX14215] Blank Spike Lab ID: 1665109 Date Analyzed: 05/23/2022 09:34 Spike Duplicate ID: LCSD for HBN 1222045 [WXX14215] Spike Duplicate Lab ID: 1665110 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222045001, 1222045003

Results by SM23 4500-N D			_						
		Blank Spike	e (mg/L)	5	Spike Duplic	cate (mg/L)			
<u>Parameter</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Kjeldahl Nitrogen	4	3.81	95	4	3.93	98	(75-125)	3.00	(< 25)
Batch Information Analytical Batch: WDA5209 Analytical Method: SM23 450 Instrument: Discrete Analyze Analyst: DMM				Pre Pre		METHOD e: 05/20/202	22 11:30 Extract Vol:	25 ml	

Print Date: 05/31/2022 2:46:03PM



Matrix Spike Summary

Original Sample ID: 1222042001 MS Sample ID: 1665111 MS MSD Sample ID: 1665112 MSD

QC for Samples: 1222045001, 1222045003

 Analysis Date:
 05/23/2022
 9:37

 Analysis Date:
 05/23/2022
 9:38

 Analysis Date:
 05/23/2022
 9:40

 Matrix:
 Water (Surface, Eff., Ground)

Results by SM23 4500-N D									
		Ma	trix Spike ((mg/L)	Spike	e Duplicate	e (mg/L)		
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	RPD (%) RPD CL
Total Kjeldahl Nitrogen	1.00U	4.00	4.63	116	4.00	1.37	34 *	75-125	109.00 * (< 25)
Batch Information Analytical Batch: WDA5209 Analytical Method: SM23 44 Instrument: Discrete Analyz Analyst: DMM Analytical Date/Time: 5/23/2	500-N D zer 2	6AM		Prep Prep Prep	o Method: o Date/Tin o Initial W		n TKN by Pl 022 11:30:0 .00mL	`	()

Print Date: 05/31/2022 2:46:05PM

SGS North America Inc.

Lambe, Alexandra (Anchorage)

From:Lambe, Alexandra (Anchorage)Sent:Tuesday, May 10, 2022 12:34 PMTo:morgan.brown@alaska.govSubject:1222042, 1222045 - Diss. Metals Pres./Filtration IssueAttachments:1222042_COC.pdf; 1222045_COC.pdf

Hi Morgan,

Thank you for your time on the phone today. As discussed, we'll be running the attached samples for Total Metals and Total Organic Carbon (versus dissolved), since they were mistakenly preserved before filtration.

Thanks again!

Allie Lambe Industries & Environment Project Manager

SGS North America Inc. 200 West Potter Dr 99518 – Anchorage Main: 907 562 2343 Direct: 907 550 3217 E-mail: Alexandra.Lambe@sgs.com

Lambe, Alexandra (Anchorage)

Subject:

[EXTERNAL] RE: WHADA Samples Rec'd 05/04/22 - Dissolved Metals List

From: Brown, Morgan E (DEC) <morgan.brown@alaska.gov>
Sent: Wednesday, May 11, 2022 8:29 AM
To: Lambe, Alexandra (Anchorage) <Alexandra.Lambe@sgs.com>
Subject: RE: [EXTERNAL] RE: WHADA Samples Rec'd 05/04/22 - Dissolved Metals List

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi Allie,

That sounds good about the standard scan. And for the dissolved metals and DOC, let's go ahead and cancel to wait on the re-sample in that case. Just to confirm, this way we will stay with our original cost, is that right?

Thank you!

Morgan Brown Water Quality Alaska Department of Environmental Conservation 610 University Ave Fairbanks, AK 99709 (907)451-2141 http://dec.alaska.gov/water/water-quality



SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD



1

#385380 XL SUPPORTOUG RECTIONS 15 MURT RE EIL ED OUT

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http://www.sgs.com/tenna-and-conditions



Project Information Form

This form provides clarification and/or additional information for sample login, and should be scanned with the receiving paperwork.

Client Name:	ADEC
Project:	WHADA
Date:	5/4/2022
Reason for	Analytical requests
Clarification:	
Notes:	E. coli = LT2 Quantitray
	200.8 Dissolved Metals = 200.8 Dissolved Metals Scan (needs Lab Filter + preservation)
	T.Phos/N = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite- N, and 4500 TKN
	DOC also needs Lab Filter + preservation
	TP, NO2NO3, TKN = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite-N, and 4500 TKN

000	e-Samp	ole Receipt Forn	ı	
SGS	SGS Workorder #:	122	2045	1222045
Re	eview Criteria	Condition (Yes, No, N/A	E	cceptions Noted below
Chain of Custo	dy / Temperature Requirements	S Note: T	emperature and COC se	al information is found on the chain of custody form
DOD only: Did all sa	mple coolers have a corresponding			
	If <0°C, were sample containers ice	e free? N/A		
	Note containers receive	<mark>ed with ice:</mark>		
Identify any con	tainers received at non-compliant te (Use form FS-0029 if more space			
	-		efer to form F-083 "Sample	e Guide" for specific holding times and sample containers.
	es received within analytical holding abels match COC? Record discrepa			
	containers differs from COC, default les differ <1hr, record details & login Were analytical requests	per COC.		
	r analyses with multiple option for m vs 8260, Metals 6020 vs 200.8)	ethod		
	ers (type/mass/volume/preservative) metals analysis by 200.8/6020 in wa	ater. 1ml o	HNO3 lot# LW09-	ed unpreserved. Proceeded to preserve with 0463-19-04. DOC received unpreserved. /ith 1ml of HCL Lot # LW09-0463-17-15
Volatile Analysis R	equirements (VOC, GRO, LL-Ho	g, etc.)		
Were Trip Blanks (e Were all water VOA vials	I with a corresponding % solids cont .g., VOAs, LL-Hg) in cooler with san free of headspace (e.g., bubbles ≤ 6 VOAs field extracted with Methanol-	nples? N/A Smm)? N/A		
Note to Client: Any	/ "No", answer above indicates non-	compliance with	standard procedu	res and may impact data quality.
	Additional	notes (if applic	able):	



Sample Containers and Preservatives

1222045001-A HNO3 to pH < 2 OK 1222045001-B HNO3 to pH < 2 OK 1222045001-C HCL to pH < 2 PA 1222045001-D H2SO4 to pH < 2 OK 1222045002-A HNO3 to pH < 2 OK 1222045003-A HNO3 to pH < 2 OK 1222045003-B HNO3 to pH < 2 OK 1222045003-B HNO3 to pH < 2 OK 1222045003-C HCL to pH < 2 PA 1222045003-B HNO3 to pH < 2 OK 1222045003-C HCL to pH < 2 PA 1222045003-B H2SO4 to pH < 2 OK 1222045003-B H2SO4 to pH < 2 OK 1222045003-F Na2S2O3 for Chlorine Redu OK 1222045003-F Na2S2O3 for Chlorine Redu OK 1222045003-F Na2S2O3 for Chlorine Redu OK 1222045004-A HNO3 to pH < 2 PA 1222045004-A HNO3 to pH < 2 PA 1222045004-A HNO3 to pH < 2 PA 1222045004-A HNO3 to pH < 2 PA	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222045001-D H2SO4 to pH < 2	1222045001-В	HNO3 to $pH < 2$	ОК			
1222045003-C HCL to pH < 2	1222045001-D 1222045002-A	HNO3 to pH < 2	OK PA			
1222045003-E Na2S2O3 for Chlorine Redu OK 1222045003-F Na2S2O3 for Chlorine Redu OK 1222045004-A HNO3 to pH < 2	1222045003-C	HCL to $pH < 2$	PA			
1222045005-A TINOS to pit < 2 PA	1222045003-Е 1222045003-F	Na2S2O3 for Chlorine Redu	ОК ОК			

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.



Orlando, FL

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

Technical Report for

SGS North America, Inc

1222045

SGS Job Number: FA95486



Sampling Date: 05/04/22

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: 17



Norme Farm

Norm Farmer **Technical Director**

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.

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 This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

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Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



1 of 17 FA95486

05/12/22

e-Hardcopy 2.0 **Automated Report**

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4.2: FA95486-2: CHE 3	8
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Section 6: Metals Analysis - QC Data Summaries	12
6.1: Prep QC MP40675: Hg	13

Sample Summary

SGS North America, Inc

1222045

Job No: FA95486

Sample	Collected			Matr	·ix	Client
Number	Date	Time By	Received	Code	е Туре	Sample ID
FA95486-1	05/04/22	10:50	05/06/22	AQ	Water	CHE 33
FA95486-2	05/04/22	12:50	05/06/22	AQ	Water	CHE 3

SAMPLE DELIVERY GROUP CASE NARRATIVE

	Client:	SGS North America, Inc	Job No:	FA95486
	Site:	1222045	Report Date:	5/12/2022 11:36:46 AM
On	05/06/202	2, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS	North America I	nc - Orlando. at a

On 05/06/2022, 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 4.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA95486 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: MP40675

Sample(s) TD81332-1DUP, TD81332-1MS, TD81332-1MSD, TD81332-1SDL 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.

Narrative prepared by:

Kim Benham, Client Services (Signature on File)

Summary of Hits Job Number: FA95486

Job Number:FA95486Account:SGS North America, IncProject:1222045Collected:05/04/22

Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method	
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FA95486-1 CHE 33

No hits reported in this sample.

FA95486-2 CHE 3

No hits reported in this sample.

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Orlando, FL

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Sample Results

Report of Analysis



SGS North America Inc.

				Rep	ort of A	nalysis		Page 1 of 1
Client Sampl Lab Sample Matrix:	ID: FA95	33 5486-1 Water					Date Sampled: Date Received: Percent Solids:	
Project:	1222	045					rercent Solius:	n/ a
Total Metals Analyte	Analysis Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	05/11/22	05/11/22 JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18664
 (2) Prep QC Batch: MP40675



SGS North America Inc.

					Rep	ort of A	nalysis		Page 1 of 1
Client Sampl Lab Sample I Matrix:	ID: F	CHE 3 FA9548 AQ - W						Date Sampled: Date Received: Percent Solids:	05/04/22 05/06/22 n/a
Project:	1	222045	5					Tercent Solids.	11/ a
Total Metals	Analysi	s							
Analyte	Resu	lt	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.5	50	0.50	ug/l	1	05/11/22	05/11/22 JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18664(2) Prep QC Batch: MP40675





Orlando, FL

Section 5

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



SGS North America Inc. CHAIN OF CUSTODY RECORD



Locations Nationwide Alaska

New Jersey

Texas

Florida Colorado North Carolina

CONTACT: Julie Shumway PHONE NO: (907) 562-2343 Additional Comments: All soils report out in dry weight unless PROJECT 1222045 PWSID#: Import out in dry weight unless Import out in dry weight unless REPORTS O: Julie Shumway PLONE NO: Julie Shumway@gg.com Import out in dry weight unless Import out in dry weight unless NVOICE TO: SGS - Alaska QUOTE #: Julie Shumway@gg.com Import out in dry weight unless Import out in dry weight unless RESERVED DAME: Julie Shumway@gg.com PO. #: 1222045 Import out in dry weight unless Import out in dry weight unless NVOICE TO: SGS - Alaska QUOTE #: 1222045 Import out in dry weight unless Import out in dry weight unless RESERVED SAMPLE IDENTIFICATION DATE TIME MATRIX RES Remetal Y Y Import out in dry weight unless Commonds SAMPLE IDENTIFICATION DATE TIME MATRIX RES Remetal Y Import out in dry weight unless Location ID Commonds SAMPLE IDENTIFICATION DATE TIME MATRIX RES Remetal Z Z Z Z	CLIENT:	SGS North America Inc Alaska Division						SGS Reference:					SGS Orlando, FL					
PROJECT 1222045 International and the second s	CONTACT:	Julie Shumway	PHONE NO:	(907) 56	(907) 562-2343			Comn	nents	: All	soils	repo	rt out	in dry weigi	nt unless	Page 1 of 1		
NR.P. CHURNEY Emv. Alaska Refla bTiam@sgs.com N C T C <thc< th=""> C <thc< th=""> <thc< t<="" td=""><td></td><td>1222045</td><td></td><td colspan="2"></td><td>c</td><td>Preserv- ative Used:</td><td>HH03</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thc<></thc<></thc<>		1222045				c	Preserv- ative Used:	HH03										
Involution Start and	REPORTS TO:	Julie Shumway		Gen 10 Martine 1		N	C = COMP	otal										
RESERVED for lab use SAMPLE IDENTIFICATION DATE mm/dd/yy TIME HHM MATRIX CODE R solis mental Solis S Solis Ms MSD SGS lab # Location ID 1 Che 33 05/04/2022 10:50:00 Water 1 X 1 1222045001 2 Che 3 05/04/2022 12:50:00 Water 1 X 1 1222045003 3 05/04/2022 12:50:00 Water 1 X 1 1222045003 4 1				1222	2045		GRAB MI =	-										
7 Che 3 05/04/2022 12:50:00 Water 1 X 1 X 1222045003 6		SAMPLE IDENTIFICATION			MATRIX	R	mental	Mercury				мs	MSD	SGS lab #		Location ID		
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Relinquished By: (1) Date Time Received By: Date Time 1 6/5/20 0850 Calcott Calgoso NO Level 2 Relinquished By: (2) Date Time Received By: Cooler ID: S / L/ L2 0950 Calcott Calgoso Requested Turnaround Time and-or Special Instructions Relinquished By: (3) Date Time Received By:										_								
Addition Date Finite Received By. Date Finite Report to DL(J Flags)? Industrie Industrie Industrie Industrie Industrie Industrie Relinquished By: (2) Date Time Received By: Industrie Industrie S / I/ L2 Offson Society Industrie Industrie Industrie Relinquished By: (3) Date Time Received By: Cooler ID: Requested Turnaround Time and-or Special Instructions Relinquished By: (3) Date Time Received By: Temp Blank °C: 4 1 4 CTM Chain of Custody Seal: (Circ										_								
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Annununun Orange of the second and	Relinquished l	Зу: (1)	Date	Time	Received	By:					•			Data Delive	rable Requirements:			
Relinquished By: (3) Date Time Received By: Temp Blank °C: 4 4 Chain of Custody Seal: (Circ	Jell	umustu	6/5/20	0850	Car	lov	L Del	inde	>	Repo If J- Re	rt to D port as	L (J FI	lags)? D/LOQ.	NO		Level 2		
Relinquished By: (3) Date Time Received By: Temp Blank °C: 4 1 4 CArry Chain of Custody Seal: (Circ	Relinquished I	Ву: (2)		1445	Received	By:								cial Instructions:				
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Relinquished By: (4) Date Time Received For Laboratory By: or Ambient [] INTACT BROKEN ABSE	elinquished By: (4) Date Time Received				For Laboratory By:				or Ambient [] INTACT BROKEN					BROKEN ABSENT				
X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301 <u>http://www.sgs.com/terms and conditions.htm</u> 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557 INITIAL ASSESSMENT		•	• • •							http:/	/www.:	sgs.co	om/teri			ENTSM		

F088_COC_REF_LAB_20190411

FA95486: Chain of Custody Page 1 of 2





SGS Sample Receipt Summary

Job Number: F/	495486			Clier	t: ALASK	٩		Project: 1222045					
Date / Time Received: 5/6/2022 2:45:00 PM						y Method:	FED EX	Airbill #'s: 1483 4802 2542					
Therm ID: IR 1;						CF: 0.4;		rs: 1					
Cooler Temps (Raw Me	easured)	° c : C	Coole	er 1: (4	.4);								
Cooler Temps (Co	rrected)	° c : c	Coole	er 1: (4	.8);								
Cooler Information	_	Υ	or	N			Sample Information		<u>Y</u> oi	r N	<u>N/A</u>		
1. Custody Seals Present		✓					1. Sample labels present	on bottles	✓				
2. Custody Seals Intact		✓					2. Samples preserved pre	operly	\checkmark				
3. Temp criteria achieved		\checkmark					3. Sufficient volume/conta	ainers recvd for analysis:	\checkmark				
4. Cooler temp verification		IR Gur	1				4. Condition of sample		Intact				
5. Cooler media		<u>lce (Ba</u>	ag)				5. Sample recvd within H	т	\checkmark				
							6. Dates/Times/IDs on C	OC match Sample Label	\checkmark				
Trip Blank Information	-	Υc	or	N	<u>N/A</u>		7. VOCs have headspace	e			\checkmark		
1. Trip Blank present / cool	er				\checkmark		8. Bottles received for un	specified tests		\checkmark			
2. Trip Blank listed on COC)				\checkmark		9. Compositing instruction	ns clear			\checkmark		
		w	or	s	N/A		10. Voa Soil Kits/Jars rec	ceived past 48hrs?					
	-		01				11. % Solids Jar received	d?			\checkmark		
3. Type Of TB Received					\checkmark		12. Residual Chlorine Pre	esent?			\checkmark		
Misc. Information													
Number of Encores: 2	5-Gram			5-Grar	n	Nur	mber of 5035 Field Kits:	Number of La	ab Filtered I	Metals:			
Test Strip Lot #s:	-		_		315		0H 10-12 219813A						
Residual Chlorine Test S													
Comments													
<u>.</u>													
SM001 Rev. Date 05/24/17	chnician:	CARL	OSD		Date	: 5/6/2022	2:45:00 PM	Reviewer:		Date:			

FA95486: Chain of Custody Page 2 of 2



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Orlando, **FL**

Section 6

Metals Analysis

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: FA95486 Account: SGSAKA - SGS North America, Inc Project: 1222045

QC Batch ID: MP40675 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:					05/11/22
Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.029	<0.50

Associated samples MP40675: FA95486-1, FA95486-2

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





Login Number: FA95486 Account: SGSAKA - SGS North America, Inc Project: 1222045

QC Batch ID: Matrix Type:		Methods: EPA 245.1 Units: ug/l							
Prep Date:			05/11/22				05/11/22		
Metal	TD81332- Original		RPD	QC Limits	TD81332- Original		Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	2.9	3	96.7	70-130

Associated samples MP40675: FA95486-1, FA95486-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6



Login Number: FA95486 Account: SGSAKA - SGS North America, Inc Project: 1222045

QC Batch ID: MP40675	Methods: EPA 245.1
Matrix Type: AQUEOUS	Units: ug/l
Prep Date:	05/11/22

Metal	TD81332 Origina		Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	

Associated samples MP40675: FA95486-1, FA95486-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits (anr) Analyte not requested



Login Number: FA95486 Account: SGSAKA - SGS North America, Inc Project: 1222045

QC Batch ID:	MP40675
Matrix Type:	AQUEOUS

Methods: EPA 245.1 Units: ug/l

Prep Date:			05/11/22	
Metal	BSP Result	Spikelot HGFLWS1		QC Limits
Mercury	2.9	3	96.7	85-115

Associated samples MP40675: FA95486-1, FA95486-2

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

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SERIAL DILUTION RESULTS SUMMARY

Login Number: FA95486 Account: SGSAKA - SGS North America, Inc Project: 1222045

QC Batch ID Matrix Type				s: EPA 245.1 s: ug/l	
Prep Date:		05/11/22			
Metal	TD81332-1 Original SDL 1:5	%DIF	QC Limits		

Mercury 0.00 0.00 NC 0-10

Associated samples MP40675: FA95486-1, FA95486-2

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

6.1.4

6





Laboratory Report of Analysis

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

Report Number: 1222072

Client Project: DEC 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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/10/2022 9:07:05AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

Member of SGS Group



Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222072 Project Name/Site: DEC 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.

Print Date: 05/10/2022 9:07:06AM

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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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.
В	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.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content.

Print Date: 05/10/2022 9:07:08AM

Note:



Sample Summary

<u>Client Sample ID</u> Cam 6 Cam 6-DUP Lab Sample ID 1222072001 1222072002
 Collected
 Received

 05/05/2022
 05/05/2022

 05/05/2022
 05/05/2022

<u>Matrix</u> Water (Surface, Eff., Ground) Water (Surface, Eff., Ground)

<u>Method</u> SM21 9223B SM21 9222D Method Description

E Coli LT2 (Colilert Quant) Fecal Coliform (MF)

Print Date: 05/10/2022 9:07:09AM



Detectable Results Summary						
Client Sample ID: Cam 6	5					
Lab Sample ID: 1222072001	Parameter	Result	<u>Units</u>			
Microbiology Laboratory	E. Coli	111	MPN/100mL			
	Fecal Coliform	66	col/100mL			
Client Sample ID: Cam 6-DUP						
Lab Sample ID: 1222072002	Parameter	Result	<u>Units</u>			
Microbiology Laboratory	E. Coli	102	MPN/100mL			
	Fecal Coliform	32	col/100mL			

Print Date: 05/10/2022 9:07:10AM

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Results of Cam 6 Client Sample ID: Cam 6 Client Project ID: DEC WHADA Lab Sample ID: 1222072001 Lab Project ID: 1222072		R M S	eceived Da	ate: 05/05/22 ate: 05/05/22 r (Surface, Et	11:07		
Results by Microbiology Laboratory <u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 66	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> col/100mL	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 05/05/22 15:0
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222072001-A Parameter	<u>Result Qual</u>	LOQ/CL	<u>DL</u>	Units	DF	<u>Allowable</u> Limits	Date Analyze
E. Coli Batch Information	111	1	1	MPN/100n	1		05/05/22 18:3
Analytical Batch: BTF19521 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/05/22 18:30 Container ID: 1222072001-B							

Print Date: 05/10/2022 9:07:12AM

SGS	

Results of Cam 6-DUP						
Client Sample ID: Cam 6-DUP Client Project ID: DEC WHADA Lab Sample ID: 1222072002 Lab Project ID: 1222072		Collection Date: 05/05/22 10:00 Received Date: 05/05/22 11:07 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:				
Results by Microbiology Laboratory]			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 32	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/05/22 15:04
Batch Information						
Analytical Batch: BTF19520 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222072002-A						
Parameter	<u>Result Qual</u>	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	102	1	<u>DL</u> 1	MPN/100m1	Linits	05/05/22 18:30
Batch Information						
Analytical Date/Time: 05/05/22 18:30 Container ID: 1222072002-B						

Print Date: 05/10/2022 9:07:12AM

SGS

Method Blank								
Blank ID: MB for HBN 1 Blank Lab ID: 1662802	Blank ID: MB for HBN 1835791 [BTF/19520] Blank Lab ID: 1662802		Matrix: Water (Surface, Eff., Ground)					
QC for Samples: 1222072001, 1222072002	2							
Results by SM21 9222E)							
<u>Parameter</u> Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL				
Batch Information								
Analytical Batch: BTF Analytical Method: SM Instrument: Analyst: M.A Analytical Date/Time:	21 9222D							

Print Date: 05/10/2022 9:07:13AM

SGS

Method Blank Blank ID: MB for HBI Blank Lab ID: 16628;	N 1835796 [BTF/19521]	Matrix: Water (Surface, Eff., Ground)					
QC for Samples: 1222072001, 12220720							
Results by SM21 922	23B)					
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m			
Batch Information]						
Analytical Batch: B Analytical Method: Instrument: Analyst: M.A Analytical Date/Time							

Print Date: 05/10/2022 9:07:16AM



SGS NORTH AMERICA INC. CHAIN OF CUSTOI



SGS Environmental Services 200 West Poller Road Anchorage, AK 99518 (907) 582-3343

www.sgs.com/alaska

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Γ	DEC #							SECTIO Y DELA								Page of
1	CONTACT: PHONE #: Morgan Brown 967/2	+51-2141	100 000 000 00000000000000000000000000	SEC	TION 3			(Internet and Internet)	Pl	RESER	VATIVE					
ECTION	PROJECT PROJECT/ NAME: DEC WHADA PWSID/ PERMIT#:			# C	SAMPLE TYPE:	\mathbf{n}	\backslash									
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	INVOICE TO: QUOTE #: P.O. #:			A I N	Mi (Multi- Inere-	Fecul	Cals									
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000	e-Sampl	le Receipt Form		
<u>565</u>	SGS Workorder #:	12220	72	1222072
Rev	view Criteria	Condition (Yes, No, N/A	Exce	ptions Noted below
Chain of Custod	y / Temperature Requirements	Note: Temp	erature and COC seal inf	formation is found on the chain of custody form
DOD only: Did all san	nple coolers have a corresponding C	COC? N/A		
I	f <0°C, were sample containers ice	free? N/A		
	Note containers received	<mark>d with ice:</mark>		
Identify any conta	ainers received at non-compliant ten (Use form FS-0029 if more space is			
lolding Time / Documen	tation / Sample Condition Requ	uirement: Note: Refer t	o form F-083 "Sample Guid	de" for specific holding times and sample containers.
	es received within analytical holding t			
	bels match COC? Record discrepar			
	ontainers differs from COC, default t as differ <1hr, record details & login p	per COC.		
	Were analytical requests c			
	analyses with multiple option for me vs 8260, Metals 6020 vs 200.8)	ethod		
Were proper container	s (type/mass/volume/preservative)us	sed? Yes		
Note: Exemption for r	metals analysis by 200.8/6020 in wat	ter.		
Volatile Analysis Re	quirements (VOC, GRO, LL-Hg,	etc.)		
	with a corresponding % solids conta			
	g., VOAs, LL-Hg) in cooler with sam			
	ree of headspace (e.g., bubbles \leq 6r			
Were all soil V	OAs field extracted with Methanol+E	BFB? N/A		
Note to Client: Any	"No", answer above indicates non-c	ompliance with star	ndard procedures	and may impact data quality.
	Additional r	otes (if applicab	le):	



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222072001-А 1222072001-В 1222072002-А 1222072002-В	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК ОК ОК			

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: 1222073

Client Project: DEC 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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/10/2022 9:07:45AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage



Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222073 Project Name/Site: DEC 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.

Print Date: 05/10/2022 9:07:46AM

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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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.
В	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.
Sample summaries which ir All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content.

Print Date: 05/10/2022 9:07:48AM

Note:



Sample Summary

Collected

Client Sample ID Che 3 Che 3-DUP

Lab Sample ID 1222073001 1222073002

Received 05/05/2022 05/05/2022 05/05/2022 05/05/2022

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

<u>Method</u> SM21 9223B SM21 9222D Method Description

E Coli LT2 (Colilert Quant) Fecal Coliform (MF)

Print Date: 05/10/2022 9:07:49AM



	Detectable Results Summary							
Client Sample ID: Che 3 Lab Sample ID: 1222073001	Parameter	Result	Units					
Microbiology Laboratory	E. Coli	62	MPN/100mL					
	Fecal Coliform	33	col/100mL					
Client Sample ID: Che 3-DUP	<u>Parameter</u>	<u>Result</u>	<u>Units</u>					
Lab Sample ID: 1222073002	E. Coli	65	MPN/100mL					
Microbiology Laboratory	Fecal Coliform	48	col/100mL					

Print Date: 05/10/2022 9:07:50AM

SGS North America Inc.

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

	_						
Client Sample ID: Che 3 Client Project ID: DEC WHADA Lab Sample ID: 1222073001 Lab Project ID: 1222073		R M Se	eceived Da	ate: 05/05/2 ate: 05/05/22 er (Surface, E	2 11:15		
Results by Microbiology Laboratory							
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 33	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> col/100ml	<u>DF</u> _ 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/05/22 15:0
Analytical Batch: BTF19520 Analytical Method: SM21 9222D Analyst: M.A							
Analytical Method: SM21 9222D							
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	<u>Allowable</u> Limits	Date Analyze
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222073001-A	<u>Result Qual</u> 62	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100			<u>Date Analyze</u> 05/05/22 18:3
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222073001-A Parameter							-
Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222073001-A Parameter E. Coli							-

Print Date: 05/10/2022 9:07:52AM

SGS	

Results of Che 3-DUP						
Client Sample ID: Che 3-DUP Client Project ID: DEC WHADA Lab Sample ID: 1222073002 Lab Project ID: 1222073		R M S	eceived Da	ate: 05/05/22 10:4 ate: 05/05/22 11:1 er (Surface, Eff., G	5	
Results by Microbiology Laboratory]			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 48	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/05/22 15:04
	40	2.00	2.00			00/00/22 10:04
Batch Information Analytical Batch: BTF19520 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/05/22 15:04 Container ID: 1222073002-A						
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u> DF	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	65	1	1	MPN/100m1		05/05/22 18:30
Batch Information Analytical Batch: BTF19521 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/05/22 18:30 Container ID: 1222073002-B						

Print Date: 05/10/2022 9:07:52AM

SGS

- Method Blank		<u> </u>			
Blank ID: MB for HBN Blank Lab ID: 166280	N 1835791 [BTF/19520] 02	Mat	rix: Water (Sur	face, Eff., Ground)	
QC for Samples: 1222073001, 12220730	002				
Results by SM21 922	22D				
<u>Parameter</u> Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL	
Batch Information]				
Analytical Batch: B Analytical Method: Instrument:					
Analyst: M.A	e: 5/5/2022 3:04:00PM				

Print Date: 05/10/2022 9:07:53AM

SGS

- Method Blank		7			
-	1835796 [BTF/19521] 3	Matri	x: Water (Su	rface, Eff., Ground)	
QC for Samples: 1222073001, 122207300)2				
Results by SM21 9223	B				
<u>Parameter</u> E. Coli	<u>Results</u> 1U	<u>LOQ/CL</u> 1	<u>DL</u> 1	<u>Units</u> MPN/100m	
Batch Information					
Analytical Batch: BTI Analytical Method: S Instrument: Analyst: M.A Analytical Date/Time:					

Print Date: 05/10/2022 9:07:58AM





SGS Environmental Services 200 West Potter Road Anchorage, AK 99518 (907) 562-2343 www.sgs.com/olaska

SGS NORTH AMERICA INC. CHAIN OF CUSTOL

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	-	CONTACT: PHO Morgan Brown		51-214	41	SEC	TION 3				PRESE	VATIVE				
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		Morgan Brown morgan	. Drocon	Calash	i. gov	N T A I N	Grab Mi (Multi-	220 220	9223B .601i		4					
ALC: N		RESERVED FOR LAB SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	inere- mental)	SM922	Sm 9.							REMARKS/ LOC ID
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http://www.sqs.com/terms-and-conditions-



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	Container Id	<u>Preservative</u>	<u>Container</u> Condition
1222073001-А 1222073001-В 1222073002-А 1222073002-В	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК ОК ОК			

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: 1222137

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/12/2022 10:07:05AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage



Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222137 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.

Print Date: 05/12/2022 10:07:07AM

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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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.
В	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.
Sample summaries which i	nclude a result for "Total Solids" have already been adjusted for moisture content.
All DRO/RRO analyses are	

Print Date: 05/12/2022 10:07:08AM

Note:



Sample Summary

<u>Client Sample ID</u> Che 3 Cam 6 Lab Sample ID 1222137001 1222137002
 Collected
 Received

 05/09/2022
 05/09/2022

 05/09/2022
 05/09/2022

<u>Matrix</u> Water (Surface, Eff., Ground) Water (Surface, Eff., Ground)

<u>Method</u> SM21 9223B SM21 9222D Method Description

E Coli LT2 (Colilert Quant) Fecal Coliform (MF)

Print Date: 05/12/2022 10:07:09AM



	Detectable Results Summa	ry	
Client Sample ID: Che 3 Lab Sample ID: 1222137001	Parameter	Result	Units
	E. Coli	35	<u>Omis</u> MPN/100mL
Microbiology Laboratory			
	Fecal Coliform	8.3	col/100mL
Client Sample ID: Cam 6			
Lab Sample ID: 1222137002	<u>Parameter</u>	Result	<u>Units</u>
Microbiology Laboratory	E. Coli	58	MPN/100mL
	Fecal Coliform	6.7	col/100mL

Print Date: 05/12/2022 10:07:11AM

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 Che 3 Client Sample ID: Che 3				ate: 05/09/22 11:20		
Client Project ID: WHADA Lab Sample ID: 1222137001 Lab Project ID: 1222137		M S		ate: 05/09/22 12:24 er (Surface, Eff., Gro	und)	
Results by Microbiology Laboratory]			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 8.3	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/09/22 14:1
Batch Information						
Analytical Batch: BTF19525 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/09/22 14:13 Container ID: 1222137001-A						
Parameter	Result Qual	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	35	1	1	MPN/100n 1		05/09/22 17:0
Analytical Batch: BTF19526 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/09/22 17:00 Container ID: 1222137001-B						

Print Date: 05/12/2022 10:07:12AM

Results of Cam 6 Client Sample ID: Cam 6 Client Project ID: WHADA Lab Sample ID: 1222137002		R M	eceived Da atrix: Wate	ate: 05/09/22 11:4 ate: 05/09/22 12:24 er (Surface, Eff., Gr	4	
ab Project ID: 1222137			olids (%): ocation:			
Results by Microbiology Laboratory						
Parameter Fecal Coliform	<u>Result Qual</u> 6.7	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/09/22 14:13
Batch Information						
Analytical Batch: BTF19525 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/09/22 14:13 Container ID: 1222137002-A						
Parameter	<u>Result Qual</u>	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	58	1	1	MPN/100m1		05/09/22 17:00
Batch Information						
Analytical Batch: BTF19526 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/09/22 17:00 Container ID: 1222137002-B						

Print Date: 05/12/2022 10:07:12AM

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Method Blank]			
Blank ID: MB for HBN 1 Blank Lab ID: 1663209		Matrix	: Water (Surf	ace, Eff., Ground)	
QC for Samples: 1222137001, 1222137002	2				
Results by SM21 9222))			
<u>Parameter</u> Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL	
Batch Information					
Analytical Batch: BTF Analytical Method: SM Instrument:					
Analyst: M.A Analytical Date/Time:	5/9/2022 2:13:00PM				

Print Date: 05/12/2022 10:07:13AM

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Method Blank		·						
Blank ID: MB for HBN 1835969 [BTF/19526] Blank Lab ID: 1663211		Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1222137001, 1222137	002							
Results by SM21 922	23B	j						
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m				
Batch Information]							
Analytical Batch: B Analytical Method: Instrument: Analyst: M.A Analytical Date/Tim								

Print Date: 05/12/2022 10:07:18AM



1222137

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: Potter Road le, AK 99518 l-2343

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Γ	ľ	CLIENT: ADEC			INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.													
SECTION 1	CONTACT: PHONE #: 907-451-2141				SEC	SECTION 3				P	PRESERVATIVE				Page of			
		Morgan Brown Morgan.Brown@alaska.gov			64	# C	SAMPLE TYPE:	Na2SO4	NA2SO4					-				
ď					O N T	Comp	oliform											
		ADEC P.O	DTE #: . #:			A I N	MI (Multi- incre-	SM9222D Fecal Coliform	223B E. 2) X									
It SA	10100	RESERVED FOR LAB SAMPLE IDENTIFICATION USE	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222I	SM92									REMARKS/ LOC ID
gemen	0100000	DAB Che3	05/09/22	11:20	SW	2	grab	\times	IX									
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	e-Sample Receipt Form						
262	SGS Workorder #:	1222137	1222137				
Re	eview Criteria	Condition (Yes, No, N/A	Exceptions Noted below				
	dy / Temperature Requirement		C seal information is found on the chain of custody form				
DOD only: Did all sa	ample coolers have a corresponding						
	If <0°C, were sample containers ic						
	Note containers receiv	red with ice:					
Identify any cor	ntainers received at non-compliant te (Use form FS-0029 if more space						
-	ntation / Sample Condition Re les received within analytical holding	-	ample Guide" for specific holding times and sample container				
	labels match COC? Record discrepa						
	containers differs from COC, defaul nes differ <1hr, record details & logir						
inionnation for login. If thi	-	·					
(i.e. method is specified fo	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8)	clear? Yes					
(i.e. method is specified fo (Eg, BTEX 8021 Were proper containe	Were analytical requests or analyses with multiple option for n	clear? Yes nethod used? Yes					
(i.e. method is specified fo (Eg, BTEX 8021 Were proper containe Note: Exemption for Volatile Analysis R	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H	clear? Yes nethod used? Yes rater. g, etc.)					
(i.e. method is specified fo (Eg, BTEX 802) Were proper containe Note: Exemption for Volatile Analysis R Yere all soil VOAs received	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H d with a corresponding % solids con	clear? Yes nethod used? Yes rater. g, etc.) tainer? N/A					
(i.e. method is specified fo (Eg, BTEX 802 f Were proper containe Note: Exemption for Volatile Analysis R Vere all soil VOAs received Were Trip Blanks (e	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) r metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H d with a corresponding % solids con e.g., VOAs, LL-Hg) in cooler with sar	clear? Yes nethod used? Yes rater. g, etc.) tainer? N/A mples? N/A					
(i.e. method is specified fo (Eg, BTEX 802) Were proper containe Note: Exemption for Volatile Analysis R Vere all soil VOAs received Were Trip Blanks (e Were all water VOA vials	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) r metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H d with a corresponding % solids con e.g., VOAs, LL-Hg) in cooler with sar free of headspace (e.g., bubbles ≤	clear? Yes nethod used? Yes rater. g, etc.) tainer? N/A mples? N/A 6mm)? N/A					
(i.e. method is specified fo (Eg, BTEX 802) Were proper containe Note: Exemption for Volatile Analysis R Vere all soil VOAs received Were Trip Blanks (e Were all water VOA vials Were all soil	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) r metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H d with a corresponding % solids con e.g., VOAs, LL-Hg) in cooler with sar free of headspace (e.g., bubbles ≤ VOAs field extracted with Methanol	clear? Yes nethod used? Yes rater. g, etc.) tainer? N/A mples? N/A 6mm)? N/A +BFB? N/A					
(i.e. method is specified fo (Eg, BTEX 802) Were proper containe Note: Exemption for Volatile Analysis R Vere all soil VOAs received Were Trip Blanks (e Were all water VOA vials Were all soil	Were analytical requests or analyses with multiple option for n vs 8260, Metals 6020 vs 200.8) ers (type/mass/volume/preservative) r metals analysis by 200.8/6020 in w equirements (VOC, GRO, LL-H d with a corresponding % solids con e.g., VOAs, LL-Hg) in cooler with sar free of headspace (e.g., bubbles ≤ VOAs field extracted with Methanol- y "No", answer above indicates non-	clear? Yes nethod used? Yes rater. g, etc.) tainer? N/A mples? N/A 6mm)? N/A +BFB? N/A	edures and may impact data quality.				



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222137001-А 1222137001-В 1222137002-А 1222137002-В	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК ОК ОК			

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: 1222173

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 05/17/2022 9:11:30AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage



Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222173 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.

Print Date: 05/17/2022 9:11:32AM

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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:

	Surrogate out of control limits.
!	ourrogate out of control minus.
В	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.
Sample summaries which All DRO/RRO analyses ar	include a result for "Total Solids" have already been adjusted for moisture content.

Print Date: 05/17/2022 9:11:34AM

Note:



Sample Summary

<u>Client Sample ID</u> Che 3 Cam 6 Lab Sample ID 1222173001 1222173002
 Collected
 Received

 05/10/2022
 05/10/2022

 05/10/2022
 05/10/2022

<u>Matrix</u> Water (Surface, Eff., Ground) Water (Surface, Eff., Ground)

<u>Method</u> SM21 9223B SM21 9222D Method Description

E Coli LT2 (Colilert Quant) Fecal Coliform (MF)

Print Date: 05/17/2022 9:11:35AM



	Detectable Results Summary								
Client Sample ID: Che 3									
Lab Sample ID: 1222173001	Parameter	Result	<u>Units</u>						
Microbiology Laboratory	E. Coli	727	MPN/100mL						
	Fecal Coliform	220	col/100mL						
Client Sample ID: Cam 6									
Lab Sample ID: 1222173002	<u>Parameter</u>	<u>Result</u>	<u>Units</u>						
Microbiology Laboratory	E. Coli	8	MPN/100mL						

Print Date: 05/17/2022 9:11:36AM

SGS North America Inc.

Results of Che 3 Client Sample ID: Che 3 Client Project ID: WHADA Lab Sample ID: 1222173001 Lab Project ID: 1222173	Collection Date: 05/10/22 13:45 Received Date: 05/10/22 14:30 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:							
Results by Microbiology Laboratory								
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 220	<u>LOQ/CL</u> 10.0	<u>DL</u> 10.0	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/10/22 17:2		
Batch Information Analytical Batch: BTF19532 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/10/22 17:27 Container ID: 1222173001-B								
<u>Parameter</u> E. Coli	<u>Result Qual</u> 727	<u>LOQ/CL</u> 1	<u>DL</u> 1	<u>Units</u> DF MPN/100m1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/10/22 17:5		
Batch Information Analytical Batch: BTF19531 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/10/22 17:51 Container ID: 1222173001-A								

Results of Cam 6							
Client Sample ID: Cam 6 Client Project ID: WHADA Lab Sample ID: 1222173002 Lab Project ID: 1222173	Collection Date: 05/10/22 14:10 Received Date: 05/10/22 14:30 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Microbiology Laboratory)——				
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 1.67 U	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/10/22 17:2	
Batch Information							
Analytical Batch: BTF19532 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/10/22 17:27 Container ID: 1222173002-B							
<u>Parameter</u> E. Coli	<u>Result Qual</u> 8	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> DF MPN/100m1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 05/10/22 17:5	
Batch Information							
Analytical Batch: BTF19531 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/10/22 17:51 Container ID: 1222173002-A							

Print Date: 05/17/2022 9:11:37AM

I		1						
Method Blank								
Blank ID: MB for HBN Blank Lab ID: 166333	N 1836001 [BTF/19531] 33	Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1222173001, 12221730	002							
Results by SM21 922	23B)						
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m				
Batch Information Analytical Batch: B' Analytical Method: Instrument: Analyst: M.A Analytical Date/Time								

Print Date: 05/17/2022 9:11:39AM

Method Blank]						
Blank ID: MB for HBN 1 Blank Lab ID: 1663335	Blank ID: MB for HBN 1836002 [BTF/19532] Blank Lab ID: 1663335		Matrix: Water (Surface, Eff., Ground)					
QC for Samples: 1222173001, 1222173002								
Results by SM21 9222D)						
<u>Parameter</u> Fecal Coliform	<u>Results</u> 1.00U		<u>OQ/CL</u> .00	<u>DL</u> 1.00	<u>Units</u> col/100mL			
Batch Information								
Analytical Batch: BTF1 Analytical Method: SM Instrument: Analyst: M.A Analytical Date/Time: {	21 9222D							

Print Date: 05/17/2022 9:11:43AM





iS Environmental Services D West Potter Road chorage, AK 99518)7) 562-2343 /w.sgs.com/alaska

SGS NORTH AMERICA INC. CHAIN OF CUSTODY RI

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-	-	Morgan Brown	one #: 907-	451-214	1	SEC	TION 3				Р	RESEF	RVATIV	E				Page of
	- 11	NAME: WHADA PW	DJECT/ SID/ NTP RMIT#:	22 464		# C	SAMPLE TYPE:	Na2SO4	Na2SO4									
U I V	ľ	Morgan Brown	-	n.Brown@a	alaska.gov	O N T	Comp Grab	Coli										
		ADEC P.C	OTE #:). #:			A I N	MI (Multi- incre-	223B E	D Fecal									
tSA	1000	RESERVED FOR LAB SAMPLE IDENTIFICATION USE	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM922	SM9222D Coliform				-					REMARKS/ LOC ID
nemen		OAB Che3	05/10/2022	13:45	SW	2	G	Х	X									
Manag		CAB CAM6	05/10/2022	14:19	SW	2	G	\times	Х									
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© SGS North America Inc. – 2014 – All rights		RELINQUISHED BY:(2)	DATE	TIME	RECEIVED I	BY:				REQUES	STED TU	JRNARO	DUND TII	/IE AND/0	OR SPE	CIAL INS	TRUCTI	ONS
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0 SG			5/10/22	14:30	Cui	X		- 6	5	(5	See attac	hed Sar	nple Rec	eipt Form	1	(Se	e attache	d Sample Receipt Form)

http://www.sgs.com/terms-and-conditions

000	e-Samp	le Receipt Form	
SGS	SGS Workorder #:	122217	73 1222173
Rev	view Criteria	Condition (Yes, No, N/A	Exceptions Noted below
Chain of Custod	y / Temperature Requirements	Note: Temper	erature and COC seal information is found on the chain of custody for
,	nple coolers have a corresponding (
l	If <0°C, were sample containers ice	free? N/A	
	Note containers receive	ed with ice:	
Identify any cont	ainers received at non-compliant ter (Use form FS-0029 if more space i		
			o form F-083 "Sample Guide" for specific holding times and sample contain
-	es received within analytical holding		
Do sample la	abels match COC? Record discrepa	ncies. Yes	
	containers differs from COC, default es differ <1hr, record details & login		
	Were analytical requests of	clear? Yes	
	analyses with multiple option for me vs 8260, Metals 6020 vs 200.8)	ethod	
Were proper container	s (type/mass/volume/preservative)u	ised? Yes	
Note: Exemption for r	metals analysis by 200.8/6020 in wa	ater.	
Volatile Analysis Re	quirements (VOC, GRO, LL-Hg	j, etc.)	
	with a corresponding % solids conta		
	g., VOAs, LL-Hg) in cooler with sam		
	ree of headspace (e.g., bubbles ≤ 6		
Note to Client: Any	"No", answer above indicates non-c	compliance with stand	idard procedures and may impact data quality.
	Additional r	notes (if applicable	<u>le):</u>
		compliance with stand	idard procedures and may impact data quality le):



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222173001-А 1222173001-В 1222173002-А 1222173002-В	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК ОК ОК			

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: 1222210

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 06/10/2022 12:07:26PM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

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Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222210 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

1222120008MS (1664705) MS

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

1222120008MSD (1664706) MSD

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

1222182001MSD (1664708) MSD

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

1222042001MSD (1665112) MSD

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 - MSD recovery was outside of QC criteria. Refer to the LCSD for accuracy.

1222210001MSD (1665242) MSD

EP365.3T1K - Total Phosphorus -MSD was outside of QC criteria. Refer to the LCS for accuracy.

Á

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

TOC was analyzed by SGS of Dayton, NJ.

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

Print Date: 06/10/2022 12:07:26PM

SGS North America Inc.

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

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.						
!	Surrogate out of control limits.						
В	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.						
Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.							

Print Date: 06/10/2022 12:07:28PM

Note:



Sample Summary										
Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>						
WA01	1222210001	05/11/2022	05/11/2022	Water (Surface, Eff., Ground)						
WA04	1222210002	05/11/2022	05/11/2022	Water (Surface, Eff., Ground)						
WA01	1222210003	05/11/2022	05/11/2022	Water (Surface, Eff., Ground)						
WA04	1222210004	05/11/2022	05/11/2022	Water (Surface, Eff., Ground)						
<u>Method</u>	Method Des	scription								
SM21 2340B	Hardness as	s CaCO3 by ICP-N	ЛS							
EP200.8	Metals in Dr	inking Water by IC	CP-MS DISSO							
EP200.8	Metals in W	ater by 200.8 ICP	-MS							
SM21 4500NO3-F	Nitrate/Nitrit	e Flow injection P	res.							
SM23 4500-N D	TKN by Phe	enate (W)								
SM21 4500P-B,E	Total Phosp	horus (W)								

Print Date: 06/10/2022 12:07:30PM



Detectable	Results	Summary
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<u>Parameter</u>	Result	<u>Units</u>
Calcium	12700	ug/L
Hardness as CaCO3	42.9	mg/L
Magnesium	2680	ug/L
Total Nitrate/Nitrite-N	0.811	mg/L
Parameter	Result	Units
		ug/L
		mg/L
Magnesium	3830	ug/L
Total Nitrate/Nitrite-N	0.722	mg/L
Total Phosphorus	0.0591	mg/L
Parameter	Result	<u>Units</u>
		ug/L
		ug/L
Copper	4.55	ug/L
		ug/L
		ug/L
-	2.72	ug/L
Potassium	864	ug/L
Silicon	3940	ug/L
Sodium	2330	ug/L
Zinc	133	ug/L
Parameter	Result	<u>Units</u>
Aluminum	29.7	ug/L
Barium	12.0	ug/L
Calcium	19800	ug/L
Copper	3.60	ug/L
Magnesium	3300	ug/L
Potassium	971	ug/L
Silicon	4220	ug/L
Sodium	3180	ug/L
Zinc	132	ug/L
	Calcium Hardness as CaCO3 Magnesium Total Nitrate/Nitrite-N Parameter Calcium Hardness as CaCO3 Magnesium Total Nitrate/Nitrite-N Total Phosphorus Parameter Barium Calcium Copper Iron Magnesium Manganese Potassium Silicon Sodium Zinc Parameter Aluminum Barium Calcium Copper Magnesium Potassium Potassium	Calcium 12700 Hardness as CaCO3 42.9 Magnesium 2680 Total Nitrate/Nitrite-N 0.811 Parameter Result Calcium 21200 Hardness as CaCO3 68.6 Magnesium 3830 Total Nitrate/Nitrite-N 0.722 Total Nitrate/Nitrite-N 0.722 Total Phosphorus 0.0591 Parameter Result Barium 11.6 Calcium 12100 Copper 4.55 Iron 485 Magnesium 2170 Manganese 2.72 Potassium 864 Silicon 3940 Sodium 2330 Zinc 133 Parameter Result Aluminum 29.7 Barium 12.0 Calcium 19800 Copper 3.60 Magnesium 3300 Potassium 971 Silicon

Print Date: 06/10/2022 12:07:31PM

SGS North America Inc.

Results of WA01							
Client Sample ID: WA01 Client Project ID: WHADA Lab Sample ID: 1222210001 Lab Project ID: 1222210	Collection Date: 05/11/22 10:42 Received Date: 05/11/22 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Metals by ICP/MS			_				
<u>Parameter</u> Calcium	<u>Result Qual</u> 12700	<u>LOQ/CL</u> 500	<u>DL</u> 150	<u>Units</u>	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 05/23/22 18:5
Magnesium	2680	500 50.0	150	ug/L ug/L	1		05/23/22 18:5
Batch Information Analytical Batch: MMS11563 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/23/22 18:52 Container ID: 1222210001-B			Prep Methoo Prep Date/T Prep Initial V	MXX35119 d: E200.2 ime: 05/21/2 Vt./Vol.: 20 r t Vol: 50 mL			
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 42.9	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/23/22 18:5

Print Date: 06/10/2022 12:07:33PM

tesults of WA01 Slient Sample ID: WA01 Slient Project ID: WHADA ab Sample ID: 1222210001 ab Project ID: 1222210		F N S	Collection Da Received Dat Matrix: Water Solids (%): .ocation:	te: 05/11/2	22 14:57		
arameter otal Nitrate/Nitrite-N	<u>Result Qual</u> 0.811	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/19/22 14:0
Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Analyst: EBH Analytical Date/Time: 05/19/22 14:07 Container ID: 1222210001-D							
<u>arameter</u> otal Phosphorus	<u>Result Qual</u> 0.0400 U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/24/22 14:0
Analytical Batch: WDA5210 Analytical Method: SM21 4500P-B,E Analyst: RJC Analytical Date/Time: 05/24/22 14:05 Container ID: 1222210001-D			Prep Batch: ' Prep Method: Prep Date/Tir Prep Initial W Prep Extract '	: SM21 450 me: 05/24/2 t./Vol.: 25 i	00P-B,E 22 11:00 mL		
<u>arameter</u> otal Kjeldahl Nitrogen	<u>Result Qual</u> 1.00 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/23/22 10:0
Analytical Batch: WDA5209 Analytical Method: SM23 4500-N D Analyst: DMM Analytical Date/Time: 05/23/22 10:07 Container ID: 1222210001-D			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 05/20/2 /t./Vol.: 25 i	22 11:30 mL		
Analyst: DMM Analytical Date/Time: 05/23/22 10:07			Prep Date/Tir Prep Initial W	me: 05/20/2 /t./Vol.: 25 i	22 11:30 mL		

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Results of WA04							
Client Sample ID: WA04 Client Project ID: WHADA Lab Sample ID: 1222210002 Lab Project ID: 1222210	F N S	Received Da	. ,				
Results by Metals by ICP/MS			_				
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyze
Calcium	21200	500	150	ug/L	1		05/23/22 18:
Magnesium	3830	50.0	15.0	ug/L	1		05/23/22 18:
Batch Information Analytical Batch: MMS11563 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/23/22 18:54 Container ID: 1222210002-B			Prep Batch: Prep Methoc Prep Date/T Prep Initial V Prep Extract	l: E200.2 ime: 05/21/2 Vt./Vol.: 20 r			
<u>Parameter</u> Hardness as CaCO3	Result Qual 68.6	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 05/23/22 18:

Print Date: 06/10/2022 12:07:33PM

Results by Waters Department Allowable Parameter Total Nitrate/Nitrite-N Result Qual 0.722 LOQ/CL 0.200 DL 0.0500 Units DF rg/L DE Limits Limits Batch Information Analytical Batch: WFI2989 Analytical Batch: WFI2989 Analytical Date/Time: 05/19/22 14:09 Container ID: 1222210002-D Kesult Qual 0.0591 LOQ/CL 0.0400 DL 0.0120 Units mg/L DF Limits Parameter Total Phosphorus Result Qual 0.0591 LOQ/CL 0.0400 DL 0.0120 Units mg/L DF Limits Batch Information Nalytical Batch: WDA5210 Analytical Batch: WDA5210 Analytical Batch: SM21 4500P-B,E Analytical Date/Time: 05/24/22 14:08 Container ID: 1222210002-D Prep Batch: WXX14216 Prep Date/Time: 05/24/22 11:00 Prep Initial WL/Vol: 25 mL Prep Extract Vol: 25 mL Malowable Prep Extract Vol: 25 mL Prep Extract Vol: 25 mL	<u>Date Analyze</u> 05/19/22 14:(
Analytical Batch: WFL2989 Analytical Method: SM21 4500NO3-F Analytical Date/Time: 05/19/22 14:09 Container ID: 1222210002-D Parameter Total Phosphorus 0.0591 0.0400 0.0400 0.0120 malytical Batch: WDA5210 Analytical Method: SM21 4500P-B,E Analytical Method: SM21 4500P-B,E Analytical Date/Time: 05/24/22 14:08 Container ID: 1222210002-D	Date Analyze
Parameter Result Qual LOQ/CL DL Units DF Limits Total Phosphorus 0.0591 0.0400 0.0120 mg/L 1 Batch Information	Date Analyze
Analytical Batch: WDA5210Prep Batch: WXX14216Analytical Method: SM21 4500P-B,EPrep Method: SM21 4500P-B,EAnalyst: RJCPrep Date/Time: 05/24/22 11:00Analytical Date/Time: 05/24/22 14:08Prep Initial Wt./Vol.: 25 mLContainer ID: 1222210002-DPrep Extract Vol: 25 mL	
Alloweble	
Parameter Result Qual LOQ/CL DL Units DF Limits Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 1	<u>Date Analyze</u> 05/23/22 10:0
Batch Information Analytical Batch: WDA5209 Prep Batch: WXX14215 Analytical Method: SM23 4500-N D Prep Method: METHOD Analyst: DMM Prep Date/Time: 05/20/22 11:30 Analytical Date/Time: 05/23/22 10:08 Prep Initial Wt./Vol.: 25 mL Container ID: 1222210002-D Prep Extract Vol: 25 mL	

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Results of WA01

Client Sample ID: **WA01** Client Project ID: **WHADA** Lab Sample ID: 1222210003 Lab Project ID: 1222210

Results by Dissolved Metals by ICP/MS

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	DF	<u>Limits</u>	Date Analyzed
Aluminum	20.0 U	20.0	6.20	ug/L	1		05/26/22 13:14
Antimony	1.00 U	1.00	0.310	ug/L	1		05/26/22 13:14
Arsenic	5.00 U	5.00	1.50	ug/L	1		05/26/22 13:14
Barium	11.6	3.00	0.940	ug/L	1		05/26/22 13:14
Beryllium	0.400 U	0.400	0.130	ug/L	1		05/26/22 13:14
Cadmium	0.500 U	0.500	0.150	ug/L	1		05/26/22 13:14
Calcium	12100	500	150	ug/L	1		05/26/22 13:14
Chromium	5.00 U	5.00	2.50	ug/L	1		05/26/22 13:14
Cobalt	4.00 U	4.00	1.20	ug/L	1		05/26/22 13:14
Copper	4.55	3.00	1.00	ug/L	1		05/26/22 13:14
Iron	485	250	78.0	ug/L	1		05/26/22 13:14
Lead	2.00 U	2.00	0.500	ug/L	1		05/26/22 13:14
Magnesium	2170	50.0	15.0	ug/L	1		05/26/22 13:14
Manganese	2.72	1.00	0.350	ug/L	1		05/26/22 13:14
Molybdenum	2.00 U	2.00	0.620	ug/L	1		05/26/22 13:14
Nickel	2.00 U	2.00	0.620	ug/L	1		05/26/22 13:14
Phosphorus	200 U	200	62.0	ug/L	1		05/26/22 13:14
Potassium	864	500	150	ug/L	1		05/26/22 13:14
Selenium	5.00 U	5.00	1.50	ug/L	1		05/26/22 13:14
Silicon	3940	1000	310	ug/L	1		05/26/22 13:14
Silver	1.00 U	1.00	0.310	ug/L	1		05/26/22 13:14
Sodium	2330	500	150	ug/L	1		05/26/22 13:14
Thallium	1.00 U	1.00	0.310	ug/L	1		05/26/22 13:14
Tin	1.00 U	1.00	0.310	ug/L	1		05/26/22 13:14
Titanium	6.25 U	6.25	3.13	ug/L	1		05/26/22 13:14
Vanadium	20.0 U	20.0	6.20	ug/L	1		05/26/22 13:14
Zinc	133	10.0	3.10	ug/L	1		05/26/22 13:14

Batch Information

Analytical Batch: MMS11567 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/26/22 13:14 Container ID: 1222210003-A Prep Batch: MXX35123 Prep Method: E200.2 Prep Date/Time: 05/23/22 12:28 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Collection Date: 05/11/22 10:42 Received Date: 05/11/22 14:57

Solids (%): Location:

Matrix: Water (Surface, Eff., Ground)

Print Date: 06/10/2022 12:07:33PM

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Results of WA04

Client Sample ID: **WA04** Client Project ID: **WHADA** Lab Sample ID: 1222210004 Lab Project ID: 1222210

Collection Date: 05/11/22 11:56 Received Date: 05/11/22 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Dissolved Metals by ICP/MS

Devenueter	Decute Quel	1.00/01	DI	l luite		Allowable
<u>Parameter</u> Aluminum	<u>Result Qual</u> 29.7	LOQ/CL	<u>DL</u>	<u>Units</u>	DF	Limits Date Analyzed 05/26/22 13:16
	29.7 1.00 U	20.0 1.00	6.20	ug/L	1	
Antimony			0.310	ug/L	1	05/26/22 13:16
Arsenic	5.00 U	5.00	1.50	ug/L	1	05/26/22 13:16
Barium	12.0	3.00	0.940	ug/L	1	05/26/22 13:16
Beryllium	0.400 U	0.400	0.130	ug/L	1	05/26/22 13:16
Cadmium	0.500 U	0.500	0.150	ug/L	1	05/26/22 13:16
Calcium	19800	500	150	ug/L	1	05/26/22 13:16
Chromium	5.00 U	5.00	2.50	ug/L	1	05/26/22 13:16
Cobalt	4.00 U	4.00	1.20	ug/L	1	05/26/22 13:16
Copper	3.60	3.00	1.00	ug/L	1	05/26/22 13:16
Iron	250 U	250	78.0	ug/L	1	05/26/22 13:16
Lead	2.00 U	2.00	0.500	ug/L	1	05/26/22 13:16
Magnesium	3300	50.0	15.0	ug/L	1	05/26/22 13:16
Manganese	1.00 U	1.00	0.350	ug/L	1	05/26/22 13:16
Molybdenum	2.00 U	2.00	0.620	ug/L	1	05/26/22 13:16
Nickel	2.00 U	2.00	0.620	ug/L	1	05/26/22 13:16
Phosphorus	200 U	200	62.0	ug/L	1	05/26/22 13:16
Potassium	971	500	150	ug/L	1	05/26/22 13:16
Selenium	5.00 U	5.00	1.50	ug/L	1	05/26/22 13:16
Silicon	4220	1000	310	ug/L	1	05/26/22 13:16
Silver	1.00 U	1.00	0.310	ug/L	1	05/26/22 13:16
Sodium	3180	500	150	ug/L	1	05/26/22 13:16
Thallium	1.00 U	1.00	0.310	ug/L	1	05/26/22 13:16
Tin	1.00 U	1.00	0.310	ug/L	1	05/26/22 13:16
Titanium	6.25 U	6.25	3.13	ug/L	1	05/26/22 13:16
Vanadium	20.0 U	20.0	6.20	ug/L	1	05/26/22 13:16
Zinc	132	10.0	3.10	ug/L	1	05/26/22 13:16
				-		

Batch Information

Analytical Batch: MMS11567 Analytical Method: EP200.8 Analyst: DSD Analytical Date/Time: 05/26/22 13:16 Container ID: 1222210004-A Prep Batch: MXX35123 Prep Method: E200.2 Prep Date/Time: 05/23/22 12:28 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/10/2022 12:07:33PM

QC for Samples: 222210001, 1222210002	2				
Results by EP200.8 Parameter Calcium Aggnesium	<u>Results</u> 250U 21.1J	<u>LOQ/CL</u> 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	
Analytical Batch: MMS Analytical Method: EP: Instrument: P7 Agilent Analyst: DSD Analytical Date/Time: {	200.8 7800	Prep Me Prep Da Prep Init	tch: MXX35119 ethod: E200.2 te/Time: 5/21/2 tial Wt./Vol.: 20 tract Vol: 50 mL	022 2:23:02PM mL	

Print Date: 06/10/2022 12:07:35PM



Blank Spike Summary			
Blank Spike ID: LCS for HBN Blank Spike Lab ID: 1664812 Date Analyzed: 05/23/2022	2	X35119]	Matrix: Water (Surface, Eff., Ground)
QC for Samples: 1222210	001, 122221000	02	
Results by EP200.8			
	Bla	nk Spike (ug/L)	
Parameter	<u>Spike</u>	Result Rec (%)	<u>CL</u>
Calcium	10000 1	0100 101	(85-115)
Magnesium	10000 9	920 99	(85-115)
Batch Information			
Analytical Batch: MMS11563 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD			Prep Batch: MXX35119 Prep Method: E200.2 Prep Date/Time: 05/21/2022 14:23 Spike Init Wt./Vol.: 10000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/10/2022 12:07:37PM



Matrix Spike Summary

Original Sample ID: 1664821 MS Sample ID: 1664822 MS MSD Sample ID: Analysis Date: 05/23/2022 18:30 Analysis Date: 05/23/2022 18:33 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210001, 1222210002

		Ma	trix Spike ((ug/L)	Spik	e Duplicat	e (ug/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Calcium	5360	10000	15300	100				70-130		
Magnesium	413	10000	10000	96				70-130		
Batch Information Analytical Batch: MMS1 Analytical Method: EP20 Instrument: P7 Agilent 7 Analyst: DSD Analytical Date/Time: 5/	00.8 7800	PM		Prep Prep Prep	Method: Date/Tin Initial W	0	st for Metals 022		IS	

Print Date: 06/10/2022 12:07:38PM

Method Blank

SG;

Blank ID: MB for HBN 1836447 [MXX/35123] Blank Lab ID: 1664917 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210003, 1222210004

Results by EP200.8

Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>
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	2.31J	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	5.00U	10.0	3.10	ug/L

Batch Information

Analytical Batch: MMS11567 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD Analytical Date/Time: 5/26/2022 12:55:21PM Prep Batch: MXX35123 Prep Method: E200.2 Prep Date/Time: 5/23/2022 12:28:42PM Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/10/2022 12:07:43PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1222210 [MXX35123] Blank Spike Lab ID: 1664918 Date Analyzed: 05/26/2022 12:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210003, 1222210004

Results by EP200.8

	E	Blank Spike	(ug/L)	
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>
Aluminum	1000	956	96	(85-115)
Antimony	1000	1030	103	(85-115)
Arsenic	1000	990	99	(85-115)
Barium	1000	983	98	(85-115)
Beryllium	100	98.8	99	(85-115)
Cadmium	100	100	100	(85-115)
Calcium	10000	10100	101	(85-115)
Chromium	400	392	98	(85-115)
Cobalt	500	500	100	(85-115)
Copper	1000	1010	101	(85-115)
Iron	5000	5100	102	(85-115)
Lead	1000	1010	101	(85-115)
Magnesium	10000	9960	100	(85-115)
Manganese	500	496	99	(85-115)
Molybdenum	400	377	94	(85-115)
Nickel	1000	1000	100	(85-115)
Phosphorus	500	497	99	(85-115)
Potassium	10000	10100	101	(85-115)
Selenium	1000	1010	101	(85-115)
Silicon	10000	9940	99	(85-115)
Silver	100	96.8	97	(85-115)
Sodium	10000	9910	99	(85-115)
Thallium	10	9.81	98	(85-115)
Tin	100	99.8	100	(85-115)
Titanium	100	99.9	100	(85-115)
Vanadium	200	193	97	(85-115)
Zinc	1000	1010	101	(85-115)

Batch Information

Analytical Batch: MMS11567 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD Prep Batch: MXX35123 Prep Method: E200.2 Prep Date/Time: 05/23/2022 12:28 Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/10/2022 12:07:44PM

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Matrix Spike Summary

Original Sample ID: 1664959 MS Sample ID: 1664960 MS MSD Sample ID: Analysis Date: 05/26/2022 13:03 Analysis Date: 05/26/2022 13:06 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210003, 1222210004

Results by EP200.8

		Ma	trix Spike (ug/L)	Spike	e Duplicate	e (ug/L)			
<u>Parameter</u>	Sample	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Aluminum	13.5J	1000	947	93				70-130		
Antimony	0.500U	1000	1020	102				70-130		
Arsenic	2.50U	1000	987	99				70-130		
Barium	2.17J	1000	980	98				70-130		
Beryllium	0.200U	100	97.3	97				70-130		
Cadmium	0.250U	100	100	100				70-130		
Calcium	5420	10000	15300	99				70-130		
Chromium	2.50U	400	387	97				70-130		
Cobalt	2.00U	500	498	100				70-130		
Copper	14.9	1000	1020	100				70-130		
Iron	82.7J	5000	5140	101				70-130		
Lead	1.00U	1000	1020	102				70-130		
Magnesium	432	10000	10200	98				70-130		
Manganese	2.08	500	495	99				70-130		
Molybdenum	1.00U	400	377	94				70-130		
Nickel	1.00U	1000	999	100				70-130		
Phosphorus	100U	500	490	98				70-130		
Potassium	201J	10000	10200	100				70-130		
Selenium	2.50U	1000	1010	101				70-130		
Silicon	1950	10000	11600	96				70-130		
Silver	0.500U	100	96.2	96				70-130		
Sodium	9490	10000	19000	95				70-130		
Thallium	0.500U	10.0	9.88	99				70-130		
Tin	0.500U	100	99.3	99				70-130		
Titanium	12.5U	100	99.1	99				70-130		
Vanadium	10.0U	200	191	95				70-130		
Zinc	8.81J	1000	1000	99				70-130		

Batch Information

Analytical Batch: MMS11567 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DSD Analytical Date/Time: 5/26/2022 1:06:08PM Prep Batch: MXX35123 Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 5/23/2022 12:28:42PM Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL

Print Date: 06/10/2022 12:07:46PM

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Blank ID: MB for HBN 183 Blank Lab ID: 1664718 QC for Samples: 1222210001, 1222210002	36364 (WFI/2989)	Matriz	k: Water (Surfac	ce, Eff., Ground)	
Results by SM21 4500NO)3-F				
Parameter Nitrate-N	<u>Results</u> 0.100U	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u>	
Nitrite-N	0.100U 0.100U	0.200	0.0500	mg/L mg/L	
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L	
Analytical Batch: WFI29 Analytical Batch: WFI29 Analytical Method: SM2 ⁻ Instrument: Astoria segn Analyst: EBH	1 4500NO3-F				

Print Date: 06/10/2022 12:07:47PM



Blank Spike Lab ID: 1664 Date Analyzed: 05/19/20 QC for Samples: 1222		0002		Matrix: Water (Surface, Eff., Ground)
Results by SM21 4500NC)3-F			
	E	Blank Spike	e (mg/L)	
Parameter	Spike	Result	<u>Rec (%)</u>	<u>CL</u>
litrate-N	2.5	2.59	104	(70-130)
litrite-N	2.5	2.56	102	(90-110)
otal Nitrate/Nitrite-N	5	5.15	103	(90-110)
Batch Information Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segm Analyst: EBH	4500NO3-F			

Print Date: 06/10/2022 12:07:49PM



Matrix Spike Summary Original Sample ID: 1222 MS Sample ID: 1664705 MSD Sample ID: 166470 QC for Samples:	MS				Analysis Analysis	Date: 0	5/19/2022 5/19/2022 5/19/2022 Water	12:38		
Results by SM21 4500NC	03-F									
		Ма	trix Spike ((mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Nitrate/Nitrite-N	0.200U	5.00	5.62	112 *	5.00	5.64	113 *	90-110	0.35	(< 25)
Batch Information										
Analytical Batch: WFI298 Analytical Method: SM21 Instrument: Astoria segn Analyst: EBH Analytical Date/Time: 5/ ²	l 4500NO3-F nented flow	0PM								
Print Date: 06/10/2022 12:07:51	PM									

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Matrix Spike Summary Original Sample ID: 1222182001 Analysis Date: 05/19/2022 13:22 MS Sample ID: 1664707 MS Analysis Date: 05/19/2022 13:24 MSD Sample ID: 1664708 MSD Analysis Date: 05/19/2022 13:25 Matrix: Drinking Water QC for Samples: 1222210001, 1222210002 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL Total Nitrate/Nitrite-N 0.200U 5.00 5.49 110 5.00 5.63 113 * 90-110 2.60 (< 25) **Batch Information** Analytical Batch: WFI2989 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: EBH Analytical Date/Time: 5/19/2022 1:24:00PM

Print Date: 06/10/2022 12:07:51PM

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

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Method Blank					
Blank ID: MB for HBN 183 Blank Lab ID: 1665108	36498 [WXX/14215]	Matrix	x: Water (Surfa	ace, Eff., Ground)	
QC for Samples: 1222210001, 1222210002					
Results by SM23 4500-N I	D				
Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>	
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L	
Batch Information					
Analytical Batch: WDA52			tch: WXX1421		
Analytical Method: SM23			ethod: METHO		
Instrument: Discrete Ana	lyzer 2		tial Wt./Vol.: 25	2022 11:30:00AM	
Analyst: DMM		i iep iiii	tract Vol: 25 m		

Print Date: 06/10/2022 12:07:52PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222210 [WXX14215] Blank Spike Lab ID: 1665109 Date Analyzed: 05/23/2022 09:34 Spike Duplicate ID: LCSD for HBN 1222210 [WXX14215] Spike Duplicate Lab ID: 1665110 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210001, 1222210002

		Blank Spike	e (mg/L)	5	Spike Duplic	ate (mg/L)			
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Kjeldahl Nitrogen	4	3.81	95	4	3.93	98	(75-125)	3.00	(< 25)
Batch Information									

Print Date: 06/10/2022 12:07:54PM



Matrix Spike Summary

Original Sample ID: 1222042001 MS Sample ID: 1665111 MS MSD Sample ID: 1665112 MSD

QC for Samples: 1222210001, 1222210002

 Analysis Date:
 05/23/2022
 9:37

 Analysis Date:
 05/23/2022
 9:38

 Analysis Date:
 05/23/2022
 9:40

 Matrix:
 Water (Surface, Eff., Ground)

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)		
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	RPD (%) RPD CL
otal Kjeldahl Nitrogen	1.00U	4.00	4.63	116	4.00	1.37	34 *	75-125	109.00 * (< 25)
Analytical Batch: WDA52 Analytical Method: SM23 Instrument: Discrete Ana Analyst: DMM	4500-N D			Prep Prep	Method: Date/Tim		n TKN by Pl 022 11:30:0	()

Print Date: 06/10/2022 12:07:55PM

SGS North America Inc.

Method Blank					
Blank ID: MB for HBN ² Blank Lab ID: 1665238		Matrix	k: Water (Surfa	ce, Eff., Ground)	
QC for Samples: 1222210001, 122221000:	2				
Results by SM21 4500	P-B,E)			
<u>Parameter</u> Total Phosphorus	<u>Results</u> 0.0200U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	
Batch Information					
Analytical Batch: WD/ Analytical Method: SM Instrument: Discrete / Analyst: RJC Analytical Date/Time:	/121 4500P-B,E	Prep Me Prep Da Prep Init	tch: WXX14216 hthod: SM21 45 te/Time: 5/24/2 ial Wt./Vol.: 25 tract Vol: 25 mL	00P-B,E 022 11:00:00AM mL	

Print Date: 06/10/2022 12:07:56PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222210 [WXX14216] Blank Spike Lab ID: 1665239 Date Analyzed: 05/24/2022 14:03 Spike Duplicate ID: LCSD for HBN 1222210 [WXX14216] Spike Duplicate Lab ID: 1665240 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222210001, 1222210002

Results by SM21 4500P-B,E									
		Blank Spike	e (mg/L)	5	Spike Duplic	cate (mg/L)			
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Phosphorus	0.2	0.177	89	0.2	0.197	98	(75-125)	10.40	(< 25)
Batch Information Analytical Batch: WDA5210 Analytical Method: SM21 4500F Instrument: Discrete Analyzer 2 Analyst: RJC	,			Pre Pre Spil	p Date/Tim ke Init Wt./\	SM21 4500F e: 05/24/202 /ol.: 0.2 mg	,		

Print Date: 06/10/2022 12:07:58PM



Matrix Spike Summary

Original Sample ID: 1222210001 MS Sample ID: 1665241 MS MSD Sample ID: 1665242 MSD

QC for Samples: 1222210001, 1222210002

Analysis Date: 05/24/2022 14:05 Analysis Date: 05/24/2022 14:06 Analysis Date: 05/24/2022 14:07 Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500P-I	B,E									
		Ма	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Phosphorus	0.0400U	0.200	.243	121	0.200	0.260	130 *	75-125	7.00	(< 25)
Batch Information Analytical Batch: WDA52 Analytical Method: SM21 Instrument: Discrete Ana Analyst: RJC Analytical Date/Time: 5/2	4500P-B,E Iyzer 2	PM		Prep Prep Prep	Method: Date/Tin Initial Wi		osphorus (W 022 11:00:0 .00mL	/		

Print Date: 06/10/2022 12:07:59PM



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-	CONT	Ν	Morgan Brown	ONE #: 907-	-451-214	1	SEC	TION 3				P	RESE	RVATIV	'E				
SECTION	PROJ NAME	1.4	VHADA PWS	JECT/ SID/ NTF MIT#:	? 22 464		# C	SAMPLE TYPE:	Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				
Ľ,			Morgan Brown	AIL: Morga	n.Brown@a	alaska.gov	O N T	Comp Grab		. Coli	al Hg	Metals	dness	Filter)	N02				
			ADEC P.O	DTE #: . #:	-	_	A I N	MI (Multi- incre-	D Fecal	223B E.	1 Total	.8 Dissolved Metals Filter)	2340B Total hardness	5301B DOC (Lab Filter)	SM4500 T-Phos,N02 +N03,TKN				
Hel	FOR	ERVED R LAB ISE	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D Fecal Coliform	SM92223B	245.*	200.8 D (Lab Filt	2340B ⁻	5301B C	SM4500 +N03,TF				REMARKS/ LOC ID
lauañ	(DA)	DZA		05/11/22	10:42	SW	5	G			X	X	\boldsymbol{X}	X	ΓX.				
Maria	CAS	RA	WAQY	05/11/22	11:56	SW	5	6			X	X	X	ĽX	X				
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	RELI	NQUISH	IED BY: (1)	DATE	TIME	RECEIVED	BY:					ION 4	DOD	Project	?		DATA	DELIVER	ABLE REQUIREMENTS:
ignts re	M	MA		5/11/22	2:56 PM				>		COC I Coole								
ľ			IED BY:(2)	DATE	TIME	RECEIVED	BY:				REQUE	STED T	URNAR	DUND TI	ME AND	OR SPE		STRUCT	DNS
							-												
	RELI	NQUISH	IED BY:(3)	DATE	TIME	RECEIVED	BY:												
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000				4 5/11 21	2:5700	Hun	MA	MX	Ø	Par2		(See atta	ched Sa	mple Rec	eipt Forr	n)	(Se	e attache	d Sample Receipt Form)
				1				•											

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http://www.sgs.com/terms-and-conditions



Project Information Form

This form provides clarification and/or additional information for sample login, and should be scanned with the receiving paperwork.

Client Name:	ADEC
Project:	WHADA
Date:	5/4/2022
Reason for	Analytical requests
Clarification:	
2000 - P.	
Notes:	
	200.8 Dissolved Metals = 200.8 Dissolved Metals Scan (needs
	Lab Filter first, then preservation)
	DOC needs Lab Filter first, then preservation
	T-Phos, NO2NO3, TKN = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite-N, and 4500 TKN

COC	e-Sam <u>pl</u>	e-Sample Receipt Form							
262	SGS Workorder #:	122221	0 1222210						
Re	view Criteria	Condition (Yes, No, N/A	Exceptions Noted below						
Chain of Custod	y / Temperature Requirements	Note: Tempera	ture and COC seal information is found on the chain of custody form						
-	nple coolers have a corresponding C								
	If <0°C, were sample containers ice	free? N/A							
	Note containers received	d with ice:							
Identify any cont	ainers received at non-compliant tem (Use form FS-0029 if more space is								
-			orm F-083 "Sample Guide" for specific holding times and sample containers.						
•	es received within analytical holding t								
Do sample la	abels match COC? Record discrepan	icies. Yes							
	containers differs from COC, default t es differ <1hr, record details & login p								
	Were analytical requests c	lear? Yes							
	analyses with multiple option for me vs 8260, Metals 6020 vs 200.8)	thod							
Were proper container	s (type/mass/volume/preservative)us	sed? Yes							
Note: Exemption for	metals analysis by 200.8/6020 in wat	er.							
Volatile Analysis Re	quirements (VOC, GRO, LL-Hg,	etc.)							
	with a corresponding % solids conta								
	g., VOAs, LL-Hg) in cooler with samp								
	ree of headspace (e.g., bubbles ≤ 6r								
	OAs field extracted with Methanol+E								
Note to Client: Any		· · · · · · · · · · · · · · · · · · ·	ard procedures and may impact data quality.						
	Additional n	otes (if applicable	<u>):</u>						



Sample Containers and Preservatives

<u>Container Id</u>	Preservative	<u>Container</u> Condition	<u>Container Id</u>	Preservative	<u>Container</u> Condition
1222210001-A 1222210001-B 1222210001-C 1222210002-A 1222210002-B 1222210002-C 1222210002-D 1222210003-A 1222210004-A	HNO3 to pH < 2 HNO3 to pH < 2 No Preservative Required H2SO4 to pH < 2 HNO3 to pH < 2 HNO3 to pH < 2 No Preservative Required H2SO4 to pH < 2 No Preservative Required No Preservative Required	ОК ОК ОК ОК ОК ОК ОК ОК			

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.



Orlando, FL

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

Technical Report for

SGS North America, Inc

1222210

SGS Job Number: FA95683



Sampling Date: 05/11/22

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



Norme Farm

Norm Farmer Technical Director

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.

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 This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

SGS North America Inc. • 4405 Vineland Road • Suite C-15 • Orlando, FL 32811 • tel: 407-425-6700 • fax: 407-425-07

Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



1 of 17

05/23/22

Automated Report

e-Hardcopy 2.0

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Section 4: Sample Results	6
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4.2: FA95683-2: WA04	8
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Section 6: Metals Analysis - QC Data Summaries	12
6.1: Prep QC MP40713: Hg	13



Sample Summary

SGS North America, Inc

1222210

Job No: FA95683

Sample	mple Collected			Matr	ix	Client		
Number	Date	Time By	Received	Code	туре	Sample ID		
FA95683-1	05/11/22	10:42	05/13/22	AQ	Water	WA01		
FA95683-2	05/11/22	11:56	05/13/22	AQ	Water	WA04		

SAMPLE DELIVERY GROUP CASE NARRATIVE

	Client:	SGS North America, Inc	Job No:	FA95683
	Site:	1222210	Report Date:	5/23/2022 12:29:23 PM
On	05/13/2022	2, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS	North America I	nc - Orlando. at a

On 05/13/2022, 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 5.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA95683 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: MP40713

Sample(s) TD81824-1DUP, TD81824-1MS, TD81824-1MSD, TD81824-1SDL 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.

Narrative prepared by:

Kim Benham, Client Services (Signature on File)

Summary of Hits Job Number: FA95683

Job Number:FA95683Account:SGS North America, IncProject:1222210Collected:05/11/22

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

FA95683-1 WA01

No hits reported in this sample.

FA95683-2 WA04

No hits reported in this sample.

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Orlando, FL

Section 4

Sample Results

Report of Analysis

4



SGS North America Inc.

				Rep	ort of A	nalysis		Page 1 of 1
Client Sample Lab Sample II Matrix:	D: FA95						Date Sampled: Date Received: Percent Solids:	05/11/22 05/13/22 n/a
Project:	12222	210					i ercent sonus.	n/ a
Total Metals A	Analysis							
Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	05/19/22	05/19/22 JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18680
 (2) Prep QC Batch: MP40713





SGS North America Inc.

Report of Analysis												
Client Sample I Lab Sample ID Matrix:	: FA95	-					Date Sampled: Date Received: Percent Solids:	05/11/22 05/13/22 n/a				
Project:	12222	210					reicent sonus.	iv a				
Total Metals Ar	nalysis											
Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method				
Mercury	< 0.50	0.50	ug/l	1	05/19/22	05/19/22 JC	EPA 245.1 ¹	EPA 245.1 ²				

(1) Instrument QC Batch: MA18680
 (2) Prep QC Batch: MP40713







Orlando, FL

Section 5

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody

SGS North America Inc. CHAIN OF CUSTODY RECORD



FA95683 Locations NationWide Alaska Florida New Jersey Colorado

sey Colorado North Carolina

Virginia Louisiana

Texas

														www.us	.sgs.com
CLIENT:	SGS North Ame	erica Inc Ala	ska Division		SG	S Refere	nce:			S	GG	Orla	ndo, FL		Page 1 of 1
CONTACT:	Julie Shumway	PHONE NO: (907) 562-2343			Additional Comments: All soils report out in dry weight unle								nt unless	ess	
PROJECT NAME:	1222210	PWSID#: NPDL#:		# c	Preserv- ative Used:	41403									
REPORTS TO	: Julie Shumway	E-MAIL:	Julie.Shumwa	ay@sgs.con	0	TYPE	-								
		Env.Alaska.	RefLabTeam(@sgs.com	N T	C = COMP	a								
INVOICE TO:	SGS - Alaska	QUOTE #:			Å	G = GRAB	, Total								
env.alask	a.accounting@sgs.com	P.O. #:	1222	210	I N	MI = Multi	245.1,								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	ТІМЕ ННММ	MATRIX/ MATRIX CODE		Incre- mental Soils	Mercury 2				MS	MSD	SGS lab #	.	ocation ID
(WA01	05/11/2022	10:42:00	Water	1		X			-	_		1222210001		
2	WA04	05/11/2022	11:56:00	Water	1		X						1222210002		
	2														
Relinguished I	By: (1)	Date	Time	Received	Bv		SM	JAM		Project	2		NO	Data Dolivo	able Requirements:
I.U.	umunu	5/12/22			1			Report to DL (J Flags)? NO				Data Delive	Level 2		
Relinquished I		Date	Time	Received I					Coole Rec		ed T	urnar	ound Time ar	nd-or Spec	ial Instructions:
Relinquished By: (3)		Date	Time	Received I	d By:				Temp Blank °C: 4 8 CAU Chair			Chain of C	ustody Seal: (Circle)		
Relinquished By: (4)		Date	Time	Received I	red For Laboratory By:								INTACT	BROKEN ABSENT	
	ter Drive Anchorage, AK 995 ness Drive Wilmington, NC 2	. ,							http://	www.s	gs.co	m/tern	INITIAL ASS		5m
													LABEL VERIFI	CATION	SM

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F088_COC_REF_LAB_20190411

FA95683: Chain of Custody Page 1 of 2



SGS Sample Receipt Summary

Job Number: FAS	95683		Clier	nt: SGS AL	ASKA		Project: 1222210			
Date / Time Received: 5/13	3/2022 4	:00:00	PM	Deliver	y Method:	FED EX	Airbill #'s: 1483 4802	2 2760		
Therm ID: IR 1;				Therm (CF: 0.4;		# of Coole	rs : 1		
Cooler Temps (Raw Mea	sured) °	° C : Co	oler 1: (4.8);						
Cooler Temps (Corr	rected) °	° C : Co	oler 1: (5.2);						
Cooler Information	_	Y or	N.			Sample Information		Y or	N	N/A_
1. Custody Seals Present		✓				1. Sample labels present	t on bottles	\checkmark		
2. Custody Seals Intact		✓				2. Samples preserved pr	operly			
3. Temp criteria achieved		✓				3. Sufficient volume/cont	tainers recvd for analysis:			
4. Cooler temp verification	Į	IR Gun				4. Condition of sample		Intact		
5. Cooler media	ļ	lce (Bag)			5. Sample recvd within H	IT	\checkmark		
						6. Dates/Times/IDs on C	OC match Sample Label	\checkmark		
Trip Blank Information	_	Y or	N	N/A		7. VOCs have headspace	e			\checkmark
1. Trip Blank present / cooler	r			\checkmark		8. Bottles received for un	nspecified tests		\checkmark	
2. Trip Blank listed on COC				\checkmark		9. Compositing instruction	ons clear			
		Wo	r S	N/A		10. Voa Soil Kits/Jars ree	ceived past 48hrs?			
			_			11. % Solids Jar receive	d?			
3. Type Of TB Received						12. Residual Chlorine Pr	esent?			
Misc. Information										
Number of Encores: 25-	-Gram		5-Gra	n	Nur	mber of 5035 Field Kits:	Number of La	ab Filtered M	etals:	
Test Strip Lot #s:				315		H 10-12 219813A				
Residual Chlorine Test Str						·				
Comments										
<u></u>										
SM001 Rev. Date 05/24/17	nician:	TORYW		Date:	5/13/2022	2 4:00:00 PM	Reviewer:		Date:	

FA95683: Chain of Custody Page 2 of 2







Orlando, **FL**

Section 6

Metals Analysis

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: FA95683 Account: SGSAKA - SGS North America, Inc Project: 1222210

QC Batch ID: MP40713 Matrix Type: AQUEOUS

Γ

Methods: EPA 245.1 Units: ug/l

Prep Date: 05/19/22 MR

Associated samples MP40713: FA95683-1, FA95683-2

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

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Login Number: FA95683 Account: SGSAKA - SGS North America, Inc Project: 1222210

QC Batch ID: Matrix Type:	Methods: EPA 245.1 Units: ug/l								
Prep Date:			05/19/22					05/19/22	
Metal	TD81824- Original		RPD	QC Limits	TD81824- Original		Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	2.7	3	90.0	70-130

Associated samples MP40713: FA95683-1, FA95683-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6

S

Login Number: FA95683 Account: SGSAKA - SGS North America, Inc Project: 1222210

QC Batch ID: MP40713	Methods:	EPA 245.1
Matrix Type: AQUEOUS	Units:	ug/l
Prep Date:	05/19/22	

Associated samples MP40713: FA95683-1, FA95683-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)$

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

೧



Login Number: FA95683 Account: SGSAKA - SGS North America, Inc Project: 1222210

QC Batch ID: MP40713 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:			05/19/22	
Metal	BSP Result	Spikelot HGFLWS1		QC Limits
Mercury	2.8	3	93.3	85-115

Associated samples MP40713: FA95683-1, FA95683-2

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

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SERIAL DILUTION RESULTS SUMMARY

Login Number: FA95683 Account: SGSAKA - SGS North America, Inc Project: 1222210

QC Batch ID: MP40713 Matrix Type: AQUEOUS		Methods: EPA 245.1 Units: ug/l		
Prep Date:	05/19/22			
TD81824-1	QC			

 Metal
 Original SDL 1:5 %DIF
 Limits

 Mercury
 0.00
 0.00
 NC
 0-10

Associated samples MP40713: FA95683-1, FA95683-2

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





Dayton, NJ

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

Technical Report for

SGS North America, Inc.

1222210

PO#1222210

SGS Job Number: JD45925



Sampling Date: 05/11/22

Report to:

SGS North America, Inc. 200 West Potter Drive Anchorage, AK 99518 julie.shumway@sgs.com; env.alaska.reflabteam@sgs.com

ATTN: Julie Shumway

Total number of pages in report: 15



David Chastain General Manager

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.

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA(68-00408), RI, SC, TX, UT, VA, WV

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Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



1 of 15

06/10/22

Automated Report

e-Hardcopy 2.0

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Sample Summary

SGS North America, Inc.

Job No: JD45925

1222210 Project No: PO#1222210

Sample	Collected			Matri	ix	Client
Number	Date	Time By	Received	Code	Туре	Sample ID
JD45925-1	05/11/22	10:42	05/27/22	AQ	Water	WA01
JD45925-2	05/11/22	11:56	05/27/22	AQ	Water	WA04

CASE NARRATIVE / CONFORMANCE SUMMARY

	Client:	SGS North America, Inc.	Job No:	JD45925
	Site:	1222210	Report Date	6/10/2022 11:02:53 A
~	0 - 10 - 10 0 0			

On 05/27/2022, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD45925 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.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

General Chemistry By Method SM5310 B-11

Matrix: AQ	Batch ID:	GP40485			
All samples were prepared within the recommended method holding time.					

All method blanks for this batch meet method specific criteria.

Sample(s) JD45924-1MS, JD45924-1MSD were used as the QC samples for Total Organic Carbon.

SGS North America Inc. 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. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summaryof HitsJob Number:JD45925Account:SGS North SGS North America, Inc. Project: 1222210 Collected: 05/11/22

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
JD45925-1 WA01					
Total Organic Carbon	6.0	1.0	0.72	mg/l	SM5310 B-11
JD45925-2 WA04					
Total Organic Carbon	5.6	1.0	0.72	mg/l	SM5310 B-11

Page 1 of 1

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Dayton, NJ

Section 4

Sample Results

Report of Analysis

4

SGS North America Inc.

			Repo	ort of Ar	nalysis		Page 1 of
Client Sample ID:	WA01	1				D-4- (S
Lab Sample ID:	JD45925-						Sampled: 05/11/22
Matrix:	AQ - Wat	er					Received: 05/27/22
Project:	1222210					rerce	nt Solids: n/a
General Chemistry	7						
Analyte		Result	RL	MDL	Units	DF	Analyzed By Method
Total Organic Carbo	on	6.0	1.0	0.72	mg/l	1	06/03/22 18:32 NA SM5310 B-11

4.1 **4** SGS North America Inc.

			Repo	rt of Ar	nalysis		Pag	e 1 of 1
Client Sample ID: Lab Sample ID: Matrix:	WA04 JD45925-2 AO - Wat	_					ampled: 05/11/22 Received: 05/27/22	
Project:	1222210					Percer	nt Solids: n/a	
General Chemistry	7							
Analyte		Result	RL	MDL	Units	DF	Analyzed By Metho	d
Total Organic Carbo	on	5.6	1.0	0.72	mg/l	1	06/03/22 18:43 NA SM5310	B-11

Report of Analysis





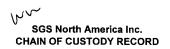
Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody







Locations Nationwide Florida Alaska

JD45925 Colorado

New Jersey North Carolina Louisiana

Texas

Virginia

Page 1 of 1 dry weight unless
GS lab # Location ID
22210001
22210002
Data Deliverable Requiremen
Level 2
·····
d Time and or Special Instruction
Chain of Custody Seal: (Cir
INTACT BROKEN ABS

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

http://www.sgs.com/terms and conditions.htm

Investigation in the second second ane Verseation

F088_COC_REF_LAB_20190411

JD45925: Chain of Custody Page 1 of 2



SGS Sample Receipt Summary

Job Number:	JD45925	Client:				Project:				
Date / Time Received:	5/27/2022 10:	00:00 AM	Delivery Metho	od: _		Airbill #'s:				
Cooler Temps (Raw Meas	sured) °C: C	Cooler 1: (3.1)	,							
Cooler Temps (Corr	ected) °C: C	Cooler 1: (2.8)	,							
Cooler Security	Y or N		<u> </u>	or	N	Sample Integrity - Documentation	Y	or	N	
1. Custody Seals Present:		3. COC F				1. Sample labels present on bottles:	\checkmark			
2. Custody Seals Intact:		4. Smpl Date	es/Time OK 🖌			2. Container labeling complete:	\checkmark			
Cooler Temperature	Y or	<u>r N</u>				3. Sample container label / COC agree:	\checkmark			
1. Temp criteria achieved:	\checkmark					Sample Integrity - Condition	Y	or	N	
2. Cooler temp verification:	IR	Gun	-			1. Sample recvd within HT:	\checkmark			
3. Cooler media:	lce	(Bag)	-			2. All containers accounted for:				
4. No. Coolers:		1	-			3. Condition of sample:		Intac	t	
Quality Control Preserve	ation <u>Y</u> d	orN N/A	<u>\</u>			Sample Integrity - Instructions	Y	or	N	N/A
1. Trip Blank present / coole	er:					1. Analysis requested is clear:				
2. Trip Blank listed on COC	: 🗆					2. Bottles received for unspecified tests			\checkmark	
3. Samples preserved prop	erly:					3. Sufficient volume recvd for analysis:				
4. VOCs headspace free:						4. Compositing instructions clear:				\checkmark
·						5. Filtering instructions clear:				\checkmark
Test Strip Lot #s:	pH 1-12:	231619		pH 12	<u>}+:</u>	203117A Other: (Specify)				

Comments

SM089-03 Rev. Date 12/7/17

> JD45925: Chain of Custody Page 2 of 2



5.1 5





General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45925 Account: SGSAKA - SGS North America, Inc. Project: 1222210

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Total Organic Carbon	GP40485/GN29953	1.0	0.0	mg/l	10	9.27	92.7	90-110%
Associated Samples:								

Batch GP40485: JD45925-1, JD45925-2 (*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45925 Account: SGSAKA - SGS North America, Inc. Project: 1222210

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Carbon	GP40485/GN29953	JD45924-1	mg/l	4.3	10	16.1	118.0	71-132%
Associated Samples: Batch GP40485: JD45925-1, JD45925-2 (*) Outside of QC limits (N) Matrix Spike Rec. outside of QC limits								

6.2



MATRIX SPIKE DUPLICATE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45925 Account: SGSAKA - SGS North America, Inc. Project: 1222210

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Total Organic Carbon	GP40485/GN29953	JD45924-1	mg/l	4.3	10	16.5	2.5	10%
Associated Samples: Batch GP40485: JD45925-1, JD4 (*) Outside of QC limits	5925-2							

(N) Matrix Spike Rec. outside of QC limits

6.3



Laboratory Report of Analysis

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

Report Number: 1222516

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 06/16/2022 1:18:55PM

SGS North America Inc.

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Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222516 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

TOC was analyzed by SGS of Dayton, NJ.

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

Print Date: 06/16/2022 1:18:56PM

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
В	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.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content. • integrated per SOP.

Print Date: 06/16/2022 1:18:59PM

Note:



	:	Sample Summary	,	
<u>Client Sample ID</u> Che33	<u>Lab Sample ID</u> 1222516001	<u>Collected</u> 05/25/2022	<u>Received</u> 05/25/2022	<u>Matrix</u> Water (Surface, Eff., Ground)
Che3	1222516002	05/25/2022	05/25/2022	Water (Surface, Eff., Ground)
Cam6	1222516003	05/25/2022	05/25/2022	Water (Surface, Eff., Ground)
Anch Bact 20-01	1222516004	05/25/2022	05/25/2022	Water (Surface, Eff., Ground)
<u>Method</u> SM21 9223B SM21 9222D	<u>Method Des</u> E Coli LT2 (Fecal Colifo	(Colilert Quant)		
EP200.8		rinking Water by I	CP-MS DISSO	

Print Date: 06/16/2022 1:19:00PM



	Detectable Results Summary		
Client Sample ID: Che33			
Lab Sample ID: 1222516001	<u>Parameter</u>	Result	<u>Units</u>
Dissolved Metals by ICP/MS	Aluminum	22.8	ug/L
	Barium	6.64	ug/L
	Calcium	20700	ug/L
	Magnesium	3300	ug/L
	Potassium	588	ug/L
	Silicon	5040	ug/L
	Sodium	1770	ug/L
	Zinc	60.8	ug/L
Client Sample ID: Che3			
Lab Sample ID: 1222516002	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	21.9	ug/L
	Calcium	44900	ug/L
	Copper	6.14	ug/L
	Magnesium	8510	ug/L
	Potassium	1140	ug/L
	Silicon	5220	ug/L
	Sodium	13500	ug/L
	Zinc	22.2	ug/L
Microbiology Laboratory	E. Coli	38	MPN/100mL
	Fecal Coliform	20	col/100mL
Client Sample ID: Cam6			
Lab Sample ID: 1222516003	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Dissolved Metals by ICP/MS	Aluminum	25.8	ug/L
	Barium	10.6	ug/L
	Calcium	21400	ug/L
	Magnesium	3150	ug/L
	Silicon	3550	ug/L
	Sodium	3340	ug/L
	Zinc	31.9	ug/L
Microbiology Laboratory	E. Coli	50	MPN/100mL
	Fecal Coliform	10	col/100mL
Client Sample ID: Anch Bact 20-01			
Lab Sample ID: 1222516004	<u>Parameter</u>	Result	<u>Units</u>
Dissolved Metals by ICP/MS	Barium	7.99	ug/L
-	Calcium	16800	ug/L
	Magnesium	2120	ug/L
	Silicon	3400	ug/L
	Sodium	1370	ug/L
	Zinc	51.0	ug/L

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SG

Results of Che33

Client Sample ID: Che33 Client Project ID: WHADA Lab Sample ID: 1222516001 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Results by Dissolved Metals by	/ ICP/MS						
,	_					Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	Limits	Date Analyzed
Aluminum	22.8	20.0	6.20	ug/L	1		06/13/22 09:00
Antimony	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:28
Arsenic	5.00 U	5.00	1.50	ug/L	1		06/10/22 14:28
Barium	6.64	3.00	0.940	ug/L	1		06/10/22 14:28
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/10/22 14:28
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/10/22 14:28
Calcium	20700	500	150	ug/L	1		06/10/22 14:28
Chromium	5.00 U	5.00	2.50	ug/L	1		06/10/22 14:28
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/10/22 14:28
Copper	3.00 U	3.00	1.00	ug/L	1		06/10/22 14:28
Iron	250 U	250	78.0	ug/L	1		06/10/22 14:28
Lead	2.00 U	2.00	0.500	ug/L	1		06/10/22 14:28
Magnesium	3300	50.0	15.0	ug/L	1		06/10/22 14:28
Manganese	1.00 U	1.00	0.350	ug/L	1		06/10/22 14:28
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/10/22 14:28
Nickel	2.00 U	2.00	0.620	ug/L	1		06/10/22 14:28
Phosphorus	200 U	200	62.0	ug/L	1		06/10/22 14:28
Potassium	588	500	150	ug/L	1		06/10/22 14:28
Selenium	5.00 U	5.00	1.50	ug/L	1		06/10/22 14:28
Silicon	5040	1000	310	ug/L	1		06/10/22 14:28
Silver	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:28
Sodium	1770	500	150	ug/L	1		06/10/22 14:28
Thallium	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:28
Tin	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:28
Titanium	6.25 U	6.25	3.13	ug/L	1		06/10/22 14:28

Print Date: 06/16/2022 1:19:04PM

Zinc

Vanadium

20.0

10.0

6.20

3.10

ug/L

ug/L

1

1

20.0 U

60.8

06/10/22 14:28

06/10/22 14:28

Collection Date: 05/25/22 10:47 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:



Results of Che33

Client Sample ID: **Che33** Client Project ID: **WHADA** Lab Sample ID: 1222516001 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 09:00 Container ID: 1222516001-A

Analytical Batch: MMS11577 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/10/22 14:28 Container ID: 1222516001-A Collection Date: 05/25/22 10:47 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/16/2022 1:19:04PM

SGS

Results of Che3

Client Sample ID: **Che3** Client Project ID: **WHADA** Lab Sample ID: 1222516002 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Allowable Parameter Result Qual LOQ/CL DL <u>Units</u> DF Date Analyzed Limits Aluminum 20.0 U 20.0 6.20 ug/L 1 06/13/22 09:03 Antimony 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:31 Arsenic 5.00 U 5.00 1.50 ug/L 1 06/10/22 14:31 Barium 21.9 3.00 0.940 ug/L 1 06/10/22 14:31 Beryllium 0.400 U 0.400 0.130 ug/L 06/10/22 14:31 1 Cadmium 0.500 U 0.500 0.150 ug/L 1 06/10/22 14:31 Calcium 44900 500 06/10/22 14:31 150 ug/L 1 Chromium 5.00 U 5.00 2.50 ug/L 1 06/10/22 14:31 Cobalt 4.00 U 4.00 1.20 ug/L 1 06/10/22 14:31 06/10/22 14:31 Copper 6.14 3.00 1.00 ug/L 1 250 U 250 78.0 06/10/22 14:31 Iron ug/L 1 2.00 U Lead 2.00 0.500 ug/L 1 06/10/22 14:31 8510 50.0 15.0 ug/L 1 06/10/22 14:31 Magnesium Manganese 1.00 U 1.00 0.350 ug/L 1 06/10/22 14:31 Molybdenum 2.00 U 2.00 0.620 ug/L 1 06/10/22 14:31 2.00 U 2.00 0.620 1 06/10/22 14:31 Nickel ug/L 200 U 200 62.0 06/10/22 14:31 Phosphorus ug/L 1 Potassium 1140 500 150 ug/L 1 06/10/22 14:31 Selenium 5.00 U 1.50 06/10/22 14:31 5.00 ug/L 1 Silicon 5220 1000 ug/L 1 06/10/22 14:31 310 Silver 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:31 Sodium 13500 500 150 ug/L 1 06/10/22 14:31 Thallium 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:31 Tin 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:31 Titanium 6.25 U 6.25 1 06/10/22 14:31 3.13 ug/L

Collection Date: 05/25/22 12:04 Received Date: 05/25/22 13:28

Solids (%): Location:

Matrix: Water (Surface, Eff., Ground)

Print Date: 06/16/2022 1:19:04PM

Vanadium

Zinc

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20.0

10.0

6.20

3.10

1

1

ug/L

ug/L

20.0 U

22.2

06/10/22 14:31

06/10/22 14:31



Results of Che3

Client Sample ID: **Che3** Client Project ID: **WHADA** Lab Sample ID: 1222516002 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 09:03 Container ID: 1222516002-C

Analytical Batch: MMS11577 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/10/22 14:31 Container ID: 1222516002-C Collection Date: 05/25/22 12:04 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/16/2022 1:19:04PM

Results of Che3 Client Sample ID: Che3				ate: 05/25/22 12:04		
Client Project ID: WHADA Lab Sample ID: 1222516002 Lab Project ID: 1222516		M S		ate: 05/25/22 13:28 er (Surface, Eff., Gro		
Results by Microbiology Laboratory]			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 20	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/25/22 16:1
Batch Information						
Analytical Batch: BTF19562 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/25/22 16:16 Container ID: 1222516002-A						
Parameter	Result Qual	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	38	1	1	MPN/100m 1		05/25/22 15:4
Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/25/22 15:45 Container ID: 1222516002-B						

Print Date: 06/16/2022 1:19:04PM

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Results of Cam6

Client Sample ID: **Cam6** Client Project ID: **WHADA** Lab Sample ID: 1222516003 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Allowable Parameter Result Qual LOQ/CL DL <u>Units</u> DF Date Analyzed Limits Aluminum 25.8 20.0 6.20 ug/L 1 06/13/22 09:05 Antimony 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:33 Arsenic 5.00 U 5.00 1.50 ug/L 1 06/10/22 14:33 Barium 10.6 3.00 0.940 ug/L 1 06/10/22 14:33 Beryllium 0.400 U 0.400 0.130 ug/L 06/10/22 14:33 1 Cadmium 0.500 U 0.500 0.150 ug/L 1 06/10/22 14:33 Calcium 21400 500 06/10/22 14:33 150 ug/L 1 Chromium 5.00 U 5.00 2.50 ug/L 1 06/10/22 14:33 Cobalt 4.00 U 4.00 1.20 ug/L 1 06/10/22 14:33 3.00 U 3.00 06/10/22 14:33 Copper 1.00 ug/L 1 250 U 250 78.0 06/10/22 14:33 Iron ug/L 1 Lead 2.00 U 2.00 0.500 ug/L 1 06/10/22 14:33 3150 50.0 15.0 ug/L 1 06/10/22 14:33 Magnesium Manganese 1.00 U 1.00 0.350 ug/L 1 06/10/22 14:33 Molybdenum 2.00 U 2.00 0.620 ug/L 1 06/10/22 14:33 2.00 U 2.00 0.620 1 06/10/22 14:33 Nickel ug/L 200 U 200 62.0 06/10/22 14:33 Phosphorus ug/L 1 500 U Potassium 500 150 ug/L 1 06/10/22 14:33 5.00 U 1.50 06/10/22 14:33 Selenium 5.00 ug/L 1 Silicon 3550 1000 ug/L 1 06/10/22 14:33 310 Silver 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:33 Sodium 3340 500 150 ug/L 1 06/10/22 14:33 Thallium 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:33 Tin 1.00 U 1.00 0.310 ug/L 1 06/10/22 14:33 Titanium 6.25 U 6.25 06/10/22 14:33 3.13 ug/L 1 Vanadium 20.0 U 20.0 6.20 1 06/10/22 14:33 ug/L Zinc 10.0 1 06/10/22 14:33 31.9 3.10 ug/L

Collection Date: 05/25/22 12:51 Received Date: 05/25/22 13:28

Solids (%): Location:

Matrix: Water (Surface, Eff., Ground)

Print Date: 06/16/2022 1:19:04PM

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Results of Cam6

Client Sample ID: **Cam6** Client Project ID: **WHADA** Lab Sample ID: 1222516003 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 09:05 Container ID: 1222516003-C

Analytical Batch: MMS11577 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/10/22 14:33 Container ID: 1222516003-C Collection Date: 05/25/22 12:51 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/16/2022 1:19:04PM

Results of Cam6 Client Sample ID: Cam6				ate: 05/25/22 12:51		
Client Project ID: WHADA Lab Sample ID: 1222516003 Lab Project ID: 1222516		M S		ate: 05/25/22 13:28 er (Surface, Eff., Gro	und)	
Results by Microbiology Laboratory]			
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 10	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 05/25/22 16:1
Batch Information						
Analytical Batch: BTF19562 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/25/22 16:16 Container ID: 1222516003-A						
Parameter	Result Qual	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
E. Coli	50	1	1	MPN/100n 1		05/25/22 15:4
Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/25/22 15:45 Container ID: 1222516003-B						

Print Date: 06/16/2022 1:19:04PM



Results of Anch Bact 20-01

Client Sample ID: **Anch Bact 20-01** Client Project ID: **WHADA** Lab Sample ID: 1222516004 Lab Project ID: 1222516 Collection Date: 05/25/22 11:26 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Dissolved Metals by ICP/MS

Devenenter	Desuit			Linita	DE	<u>Allowable</u>	Data Analyzad
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Aluminum	20.0 U	20.0	6.20	ug/L	1		06/13/22 09:08
Antimony	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:36
Arsenic	5.00 U	5.00	1.50	ug/L	1		06/10/22 14:36
Barium	7.99	3.00	0.940	ug/L	1		06/10/22 14:36
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/10/22 14:36
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/10/22 14:36
Calcium	16800	500	150	ug/L	1		06/10/22 14:36
Chromium	5.00 U	5.00	2.50	ug/L	1		06/10/22 14:36
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/10/22 14:36
Copper	3.00 U	3.00	1.00	ug/L	1		06/10/22 14:36
Iron	250 U	250	78.0	ug/L	1		06/10/22 14:36
Lead	2.00 U	2.00	0.500	ug/L	1		06/10/22 14:36
Magnesium	2120	50.0	15.0	ug/L	1		06/10/22 14:36
Manganese	1.00 U	1.00	0.350	ug/L	1		06/10/22 14:36
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/10/22 14:36
Nickel	2.00 U	2.00	0.620	ug/L	1		06/10/22 14:36
Phosphorus	200 U	200	62.0	ug/L	1		06/10/22 14:36
Potassium	500 U	500	150	ug/L	1		06/10/22 14:36
Selenium	5.00 U	5.00	1.50	ug/L	1		06/10/22 14:36
Silicon	3400	1000	310	ug/L	1		06/10/22 14:36
Silver	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:36
Sodium	1370	500	150	ug/L	1		06/10/22 14:36
Thallium	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:36
Tin	1.00 U	1.00	0.310	ug/L	1		06/10/22 14:36
Titanium	6.25 U	6.25	3.13	ug/L	1		06/10/22 14:36
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/10/22 14:36
Zinc	51.0	10.0	3.10	ug/L	1		06/10/22 14:36

Print Date: 06/16/2022 1:19:04PM

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Results of Anch Bact 20-01

Client Sample ID: **Anch Bact 20-01** Client Project ID: **WHADA** Lab Sample ID: 1222516004 Lab Project ID: 1222516

Results by Dissolved Metals by ICP/MS

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 09:08 Container ID: 1222516004-A

Analytical Batch: MMS11577 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/10/22 14:36 Container ID: 1222516004-A Collection Date: 05/25/22 11:26 Received Date: 05/25/22 13:28 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Prep Batch: MXX35143 Prep Method: E200.2 Prep Date/Time: 06/07/22 12:45 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/16/2022 1:19:04PM

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- Method Blank					
Blank ID: MB for HBN Blank Lab ID: 166542 QC for Samples: 1222516002, 122251600		Matrix	:: Water (Suri	face, Eff., Ground)	
Results by SM21 9222	2D	·			
<u>Parameter</u> Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL	,
Batch Information					
Analytical Batch: BTI Analytical Method: S Instrument: Analyst: M.A Analytical Date/Time:					

Print Date: 06/16/2022 1:19:05PM

SGS

Method Blank Blank ID: MB for HBN Blank Lab ID: 16654 QC for Samples: 1222516002, 12225160		Matrix	x: Water (Su	rface, Eff., Ground)	
Results by SM21 922	23B)(
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m	
Batch Information)				
Analytical Batch: B Analytical Method: Instrument: Analyst: M.A Analytical Date/Time					

Print Date: 06/16/2022 1:19:10PM

Method Blank

SG?

Blank ID: MB for HBN 1837338 [MXX/35143] Blank Lab ID: 1667015 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222516001, 1222516003, 1222516004

Results by EP200.8				
Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>
Aluminum	10.0U	20.0	<u>6.20</u>	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	161J	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	5.00U	10.0	3.10	ug/L

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Method Blank

SG:

Blank ID: MB for HBN 1837338 [MXX/35143] Blank Lab ID: 1667015

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1222516001, 1222516002, 1222516003, 1222516004

Results by EP200.8					
Parameter Batch Information	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
Analytical Batch: MMS1 Analytical Method: EP2/ Instrument: P7 Agilent 7 Analyst: DMM Analytical Date/Time: 6/	00.8 7800	Prep Me Prep Da Prep Init	tch: MXX351 ethod: E200.2 te/Time: 6/7/2 tial Wt./Vol.: 2 tract Vol: 50 r	2022 12:45:36PM 20 mL	
Analytical Batch: MMS1 Analytical Method: EP2 Instrument: P7 Agilent 7 Analyst: DMM Analytical Date/Time: 6/	00.8 7800	Prep Me Prep Da Prep Init	tch: MXX351 ethod: E200.2 te/Time: 6/7/2 tial Wt./Vol.: 2 tract Vol: 50 r	2022 12:45:36PM 20 mL	

Print Date: 06/16/2022 1:19:14PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222516 [MXX35143] Blank Spike Lab ID: 1667016 Date Analyzed: 06/13/2022 08:38

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1222516001, 1222516002, 1222516003, 1222516004

Results by EP200.8

		Blank Spike	e (ug/L)	
<u>Parameter</u>	Spike	<u>Result</u>	<u>Rec (%)</u>	CL
Aluminum	1000	1030	103	(85-115)
Antimony	1000	996	100	(85-115)
Arsenic	1000	989	99	(85-115)
Barium	1000	947	95	(85-115)
Beryllium	100	100	100	(85-115)
Cadmium	100	98.4	98	(85-115)
Calcium	10000	10000	100	(85-115)
Chromium	400	398	99	(85-115)
Cobalt	500	512	102	(85-115)
Copper	1000	1020	102	(85-115)
Iron	5000	5020	100	(85-115)
Lead	1000	1010	101	(85-115)
Magnesium	10000	10100	101	(85-115)
Manganese	500	500	100	(85-115)
Molybdenum	400	375	94	(85-115)
Nickel	1000	1010	101	(85-115)
Phosphorus	500	506	101	(85-115)
Potassium	10000	10100	101	(85-115)
Selenium	1000	988	99	(85-115)
Silicon	10000	10000	100	(85-115)
Silver	100	95.9	96	(85-115)
Sodium	10000	10200	102	(85-115)
Thallium	10	9.75	98	(85-115)
Tin	100	97.5	98	(85-115)
Titanium	100	99.0	99	(85-115)
Vanadium	200	201	101	(85-115)
Zinc	1000	999	100	(85-115)

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lank Spike Summary	4000540		21	
lank Spike ID: LCS for HBN lank Spike Lab ID: 1667016		[MXX3514	3]	
ate Analyzed: 06/10/2022	14:23			Metrice (Surface Eff. Cround)
C for Somplos: 12225160	01 10005	16002 1222	2516003, 1222	Matrix: Water (Surface, Eff., Ground)
C for Samples: 12225160	JUT, TZZZJ	10002, 1222	2010000, 12223	510004
Results by EP200.8				
Counto by LI 200.0		Blank Spike	e (ug/L)	
arameter	Spike	Result	<u>Rec (%)</u>	<u>CL</u>
atch Information				
Analytical Batch: MMS11577				Prep Batch: MXX35143
Analytical Method: EP200.8				Prep Method: E200.2
Instrument: P7 Agilent 7800 Analyst: DMM				Prep Date/Time: 06/07/2022 12:45 Spike Init Wt./Vol.: 5000 ug/L Extract Vol: 50 mL
				Dupe Init Wt./Vol.: Extract Vol:
Analytical Batch: MMS11578				Prep Batch: MXX35143
Analytical Method: EP200.8				Prep Method: E200.2
Instrument: P7 Agilent 7800				Prep Date/Time: 06/07/2022 12:45
Analyst: DMM				Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1667018 MS Sample ID: 1667019 MS MSD Sample ID: Analysis Date: 06/13/2022 8:41 Analysis Date: 06/13/2022 8:44 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222516001, 1222516002, 1222516003, 1222516004

Results by EP200.8										
la de la della		Ma	trix Spike (ι	ug/L)	Spike	e Duplicate	e (ug/L)			
<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Aluminum	23.2	1000	1010	99				70-130		
Antimony	1.17	1000	1000	100				70-130		
Arsenic	1.55J	1000	991	99				70-130		
Barium	1.50U	1000	958	96				70-130		
Beryllium	0.200U	100	99.9	100				70-130		
Cadmium	0.250U	100	99.2	99				70-130		
Calcium	239J	10000	10100	98				70-130		
Chromium	2.50U	400	389	97				70-130		
Cobalt	2.00U	500	506	101				70-130		
Copper	8.85	1000	1010	100				70-130		
Iron	125U	5000	4980	100				70-130		
Lead	1.00U	1000	1000	100				70-130		
Magnesium	61.8	10000	10000	100				70-130		
Manganese	0.557J	500	492	98				70-130		
Molybdenum	2.46	400	380	94				70-130		
Nickel	1.00U	1000	1010	101				70-130		
Phosphorus	100U	500	511	102				70-130		
Potassium	447J	10000	10400	100				70-130		
Selenium	2.50U	1000	994	99				70-130		
Silicon	7250	10000	17300	101				70-130		
Silver	0.500U	100	95.2	95				70-130		
Sodium	117000	10000	126000	95				70-130		
Thallium	0.500U	10.0	9.6	96				70-130		
Tin	0.500U	100	98	98				70-130		
Titanium	12.5U	100	99.4	99				70-130		
Vanadium	10.0U	200	200	100				70-130		
Zinc	9.54J	1000	1000	99				70-130		

Print Date: 06/16/2022 1:19:16PM

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MSD Sample ID: Analysis Date: Matrix: Water (Surface, Eff., Ground) QC for Samples: 1222516001, 1222516002, 1222516003, 1222516004 Results by EP200.8 Matrix Spike (ug/L) Spike Duplicate (ug/L) arameter Sample Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD	MSD Sample ID: Analysis Date: Matrix: Water (Surface, Eff., Ground) QC for Samples: 1222516001, 1222516002, 1222516003, 1222516004 Results by EP200.8 Matrix Spike (ug/L) Spike Duplicate (ug/L) arameter Sample Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD Batch Information Analytical Batch: MMS11577 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Analytical Batch: MMS11578 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Analyst: DMM	Matrix Spike Summary Original Sample ID: 1667018 MS Sample ID: 1667019 MS							6/10/2022 6/10/2022			
Results by EP200.8 Matrix Spike (ug/L) Sample Spike Result Rec (%) CL RPD (%) RPD (%) RPD (%) RPD (%) RPD (%) RPC (%) RPD (%)	Results by EP200.8 Matrix Spike (ug/L) Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD arameter Sample Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD Batch Information Analytical Batch: MMS11577 Prep Batch: MXX35143 Analytical Method: EP200.8 Prep Date/Time: 6/7/2022 12:45:36PM Instrument: P7 Agilent 7800 Prep Batch: MXX35143 Analytical Batch: MMS11578 Prep Batch: MXX35143 Analytical Batch: MMS11578 Prep Batch: MXX35143 Analytical Method: EP200.8 Prep Method: DW Digest for Metals on ICP-MS Instrument: P7 Agilent 7800 Prep Date/Time: 6/7/2022 12:45:36PM Analytical Method: EP200.8 Prep Date/Time: 6/7/2022 12:45:36PM Instrument: P7 Agilent 7800 Prep Date/Time: 6/7/2022 12:45:36PM Analyst: DMM Prep Initial Wt./vol.: 20.00mL	·			Analysis	Date:			d)			
Matrix Spike (ug/L)Spike Duplicate (ug/L)arameterSampleSpikeResultRec (%)SpikeResultRec (%)CLRPD (%)RPEBatch InformationAnalytical Batch: MMS11577Analytical Method: EP200.8Instrument: P7 Agilent 7800Analytical Date/Time: 6/10/2022Analytical Date/Time: 6/10/2022Analytical Batch: MMS11578Analytical Batch: MMS11578Analytical Batch: MMS11578Analytical Batch: MMS11578Analytical Batch: MMS11578Analytical Batch: MMS11578Analytical Method: EP200.8Instrument: P7 Agilent 7800Analytical Method: EP200.8Instrument: P7 Agilent 7800Analytical Method: EP200.8Instrument: P7 Agilent 7800Analytic DMMAnalytic DMMAnalytic DMMAnalytic DMMAnalytic DMMAnalytical Method: EP200.8Instrument: P7 Agilent 7800Analyst: DMMAnalyst: DMMAnalyst: DMMAnalyst: DMMAnalyst: DMM	arameterSampleSpikeResultRec (%)SpikeResultRec (%)CLRPD (%)RPDBatch InformationAnalytical Batch: MMS11577 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Date/Time: 6/10/2022 2:04:00PMPrep Batch: MXX35143 Prep Date/Time: 6/7/2022 12:45:36PM Prep Initial Wt./Vol.: 20.00mLAnalytical Batch: MMS11578 Analytical Batch: MMS11578 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMMPrep Batch: MXX35143 Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/7/2022 12:45:36PM Prep Date/Time: 6/7/2022 12:45:36PM Prep Date/Time: 6/7/2022 12:45:36PM Prep Date/Time: 6/7/2022 12:45:36PM Prep Initial Wt./Vol.: 20.00mL	QC for Samples: 1222	2516001, 12225160	02, 122251	.6003, 122	.2516004						
arameterSampleSpikeResultRec (%)SpikeResultRec (%)CLRPD (%)RPDBatch InformationAnalytical Batch: MMS11577 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Date/Time: 6/10/2022 2:04:00PMPrep Batch: MXX35143 Prep Date/Time: 6/7/2022 12:45:36PM Prep Initial Wt./Vol.: 20.00mLAnalytical Batch: MMS11578 Analytical Batch: MMS11578 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMMPrep Batch: MXX35143 Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/7/2022 12:45:36PM Prep Initial Wt./vol.: 20.00mL	arameterSampleSpikeResultRec (%)SpikeResultRec (%)CLRPD (%)RPDBatch InformationAnalytical Batch: MMS11577 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM 	Results by EP200.8					0.11		(
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		Analytical Date/Time:	6/13/2022 8:44:14	IAM		Prep	Extract \	/ol: 50.00	mL			

Print Date: 06/16/2022 1:19:16PM

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SGS

Matrix Spike Summary

Original Sample ID: 1667020 MS Sample ID: 1667021 MS MSD Sample ID: Analysis Date: 06/13/2022 8:46 Analysis Date: 06/13/2022 8:49 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222516001, 1222516002, 1222516003, 1222516004

Results by EP200.8										
		Mat	trix Spike (ι	ug/L)	Spike	e Duplicate	e (ug/L)			
Parameter	<u>Sample</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Aluminum	10.0U	1000	1010	101				70-130		
Antimony	0.500U	1000	1010	101				70-130		
Arsenic	2.50U	1000	990	99				70-130		
Barium	1.50U	1000	965	97				70-130		
Beryllium	0.200U	100	98.5	99				70-130		
Cadmium	0.250U	100	98.6	99				70-130		
Calcium	532	10000	10400	99				70-130		
Chromium	2.50U	400	392	98				70-130		
Cobalt	2.00U	500	505	101				70-130		
Copper	10.9	1000	1010	100				70-130		
Iron	125U	5000	4950	99				70-130		
Lead	0.582J	1000	1010	101				70-130		
Magnesium	67.1	10000	10000	100				70-130		
Manganese	1.99	500	495	99				70-130		
Molybdenum	2.82	400	383	95				70-130		
Nickel	1.08J	1000	1020	102				70-130		
Phosphorus	100U	500	502	100				70-130		
Potassium	541	10000	10400	99				70-130		
Selenium	1.97J	1000	986	98				70-130		
Silicon	5970	10000	15900	100				70-130		
Silver	0.500U	100	95.2	95				70-130		
Sodium	169000	10000	181000	117				70-130		
Thallium	0.500U	10.0	9.67	97				70-130		
Tin	0.500U	100	98.8	99				70-130		
Titanium	12.5U	100	98.8	99				70-130		
Vanadium	10.0U	200	200	100				70-130		
Zinc	46.6	1000	1040	99				70-130		

Print Date: 06/16/2022 1:19:16PM

SGS North America Inc.

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

)2, 122251	16003, 122	2516004	Analysis Analysis	Date: 00 Date:	6/10/2022 6/10/2022 urface, Eff.	14:09	nd)	
Results by EP200.8		Ma	ıtrix Spike ((ug/L)	Snike	e Duplicat	e (ug/L)			
Parameter	<u>Sample</u>	<u>Spike</u>	<u>Result</u>	(ug/L) <u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Batch Information										
Analytical Batch: MMS11 Analytical Method: EP200 Instrument: P7 Agilent 78 Analyst: DMM Analytical Date/Time: 6/10).8 00	PM		Pre Pre Pre	o Method: o Date/Tim o Initial Wt		st for Metal 22 12:45:3 .00mL		P-MS	
Analytical Batch: MMS11 Analytical Method: EP200 Instrument: P7 Agilent 78 Analyst: DMM Analytical Date/Time: 6/13).8 00	AM		Pre Pre Pre	o Method: o Date/Tim o Initial Wt		st for Metal 22 12:45:3 .00mL		P-MS	

Print Date: 06/16/2022 1:19:16PM



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SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECC

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-	CONTACT: PHO Morgan Brown	ONE #: 907-	-451-214	1	SEC	TION 3				F	RESE	RVATI	/E				Page of
CTION		RMIT #:	9 22 464		# C	SAMPLE TYPE:	Na2SO4	Na2SO4	HNO3		HN03		H2SO4				
S	Morgan Brown		n.Brown@a	alaska.gov	O N T	Comp Grab	_	E. Coli	al Hg	Metals	ardness	b Filter)	i, NO2				
	ADEC P.0	OTE #: #:			A I N	MI (Multi- incre-	2D Fecal	SM92223B I	245.1 Total	8 Dissolved Metals Filter) ★	2340B Total hardness	5301B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
It SA	RESERVED FOR LAB USE	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D F Coliform	SM92	245.	200.8 E (Lab Fil	2340B	5301B	SM450(+NO3,7				REMARKS/ LOC ID
gemer	DAPAPChe33	5-25-22	10:47	SW	2	6				LX.		IX.	•	·			
Мапа	CAPOAF Chez	5-25-22	12:04 m		<u> </u>	G	\times	LX	<u> </u>	X	ļ	X	- <u>-</u>				
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014 - A		DATE	TIME	RECEIVED	BY:)		REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTR # Scan, per quote - ML os								
	RELINQUISHED BY:(3)	DATE	TIME	RECEIVED	BY:				-		1	F	••••			•	
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© SGS		5/25/22-	1228	hi	, (h	1	<u>(න</u>					ceipt Forr	n)			d Sample Receipt Form)

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000	e-Sampl	le Receipt I	Form	
262	SGS Workorder #:	1	222516	1222516
	Review Criteria	Condition (Yes, I	No, N/A	Exceptions Noted below
Chain of	Custody / Temperature Requirements			seal information is found on the chain of custody form
	id all sample coolers have a corresponding			
	If <0°C, were sample containers ice	free? N/A		
	Note containers receive	ed with ice:		
Identify a	any containers received at non-compliant ter (Use form FS-0029 if more space)			
Holding Time / Do	ocumentation / Sample Condition Req	uirements	Note: Refer to form F-083 "Sam	ble Guide" for specific holding times and sample containers.
Wer	e samples received within analytical holding	time? Yes		
Do s	sample labels match COC? Record discrepa	ncies. Yes		
	tion on containers differs from COC, default in. If times differ <1hr, record details & login ,			
	Were analytical requests	clear? Yes		
(Eg, BTE	cified for analyses with multiple option for me X 8021 vs 8260, Metals 6020 vs 200.8)			
	containers (type/mass/volume/preservative)u			
Note: Exemp	ption for metals analysis by 200.8/6020 in wa	iter.		
Volatile Analy	ysis Requirements (VOC, GRO, LL-Hg	, etc.)		
-	received with a corresponding % solids conta			
	lanks (e.g., VOAs, LL-Hg) in cooler with sam			
Were all water VC	OA vials free of headspace (e.g., bubbles ≤ 6	omm)? N/A		
Were	all soil VOAs field extracted with Methanol+	BFB? N/A		
Note to Clie	ent: Any "No", answer above indicates non-o	compliance	with standard proced	ures and may impact data quality.
	Additional	notes (if a	pplicable):	



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition
1222516001-A 1222516001-B 1222516001-C 1222516001-D 1222516002-A 1222516002-B	No Preservative Required No Preservative Required No Preservative Required No Preservative Required Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК ОК ОК ОК			
1222516002-B 1222516002-C 1222516002-E 1222516002-F 1222516003-A 1222516003-B 1222516003-C 1222516003-D 1222516003-E 1222516003-F 1222516004-A 1222516004-B	No Preservative Required No Preservative Required No Preservative Required No Preservative Required Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu No Preservative Required No Preservative Required No Preservative Required No Preservative Required No Preservative Required No Preservative Required	ок ок ок ок ок ок ок ок ок ок			
1222516004-C 1222516004-D	No Preservative Required No Preservative Required	ОК ОК			

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.



Dayton, NJ

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

Technical Report for

SGS North America, Inc.

1222516

PO#1222516

SGS Job Number: JD45924



Sampling Date: 05/25/22

Report to:

SGS North America, Inc. 200 West Potter Drive Anchorage, AK 99518 julie.shumway@sgs.com; env.alaska.reflabteam@sgs.com

ATTN: Julie Shumway

Total number of pages in report: 17



David Chastain General Manager

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.

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA(68-00408), RI, SC, TX, UT, VA, WV

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SGS North America Inc. • 2235 Route 130 • Dayton, NJ 08810 • tel: 732-329-0200 •

Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



1 of 17

06/10/22

Automated Report

e-Hardcopy 2.0

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4.2: JD45924-2: CHE3	
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Sample Summary

SGS North America, Inc.

Job No: JD45924

1222516 Project No: PO#1222516

Sample Number	Collected Date	Time By	Received	Matri Code		Client Sample ID
JD45924-1	05/25/22	10:47	05/27/22	AQ	Water	CHE33
JD45924-2	05/25/22	12:04	05/27/22	AQ	Water	CHE3
JD45924-3	05/25/22	12:51	05/27/22	AQ	Water	CAM6
JD45924-4	05/25/22	11:26	05/27/22	AQ	Water	ANCH BACT 20-01

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS North America, Inc.	Job No:	JD45924
Site:	1222516	Report Date	6/10/2022 11:03:20 A
0= 05/27/2	022 4 Samula(a) O Trin Dlank(a) and O Eiald Dlank(a) ware reasived at S	CC North America	In a st a maximum

On 05/27/2022, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD45924 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.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

General Chemistry By Method SM5310 B-11

	Matrix: AQ	Batch ID:	GP40485					
-	All samples were prepared within the recommended method holding time.							

All method blanks for this batch meet method specific criteria.

Sample(s) JD45924-1MS, JD45924-1MSD were used as the QC samples for Total Organic Carbon.

SGS North America Inc. 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. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, June 10, 2022

Summaryof HitsJob Number:JD45924Account:SGS North SGS North America, Inc. Project: 1222516 Collected: 05/25/22

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
JD45924-1 CHE33					
Total Organic Carbon	4.3	1.0	0.72	mg/l	SM5310 B-11
JD45924-2 CHE3					
Total Organic Carbon	3.9	1.0	0.72	mg/l	SM5310 B-11
JD45924-3 CAM6					
Total Organic Carbon	3.1	1.0	0.72	mg/l	SM5310 B-11
JD45924-4 ANCH BACT 20-	01				
Total Organic Carbon	2.7	1.0	0.72	mg/l	SM5310 B-11

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Dayton, NJ

Section 4

Sample Results

Report of Analysis

4

SGS North America Inc.

			Repo	Report of Analysis			Page 1 of 1
Client Sample ID:		1				Data	Semulada 05/25/22
Lab Sample ID: Matrix:	JD45924-						Sampled: 05/25/22 Received: 05/27/22
	AQ - Wat	ter					nt Solids: n/a
Project:	1222516					reite	
General Chemistry	7						
Analyte		Result	RL	MDL	Units	DF	Analyzed By Method
Total Organic Carbo	on	4.3	1.0	0.72	mg/l	1	06/03/22 16:27 NA SM5310 B-11

4.1 **4** SGS North America Inc.

			F -		J ~~_~		8
Client Sample ID:	CHE3						
Lab Sample ID:	JD45924-2					Date S	Sampled: 05/25/22
Matrix:	AQ - Wate	r				Date 1	Received: 05/27/22
						Percer	nt Solids: n/a
Project:	1222516						
General Chemistry	y						
Analyte		Result	RL	MDL	Units	DF	Analyzed By Method
Total Organic Carb	on	3.9	1.0	0.72	mg/l	1	06/03/22 17:14 NA SM5310 B-11

Report of Analysis

4.2

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SGS North America Inc.

			Repo	rt of Ar	nalysis		Page 1 of 1
Client Sample ID: Lab Sample ID:	CAM6 JD45924-	3				Date S	Sampled: 05/25/22
Matrix:	AQ - Wat	-				Date 1	Received: 05/27/22 nt Solids: n/a
Project:	1222516					1 0100	
General Chemistry	7						
Analyte		Result	RL	MDL	Units	DF	Analyzed By Method
Total Organic Carbo	on	3.1	1.0	0.72	mg/l	1	06/03/22 17:25 NA SM5310 B-11

4.3 **4**



SGS North America Inc.

Client Sample ID:	ANCH BACT	20-01				
Lab Sample ID:	JD45924-4				Date S	Sampled: 05/25/22
Matrix:	AQ - Water Date Received: 05/2				Received: 05/27/22	
					Percer	nt Solids: n/a
Project:	1222516					
General Chemistry	7					
Analyte	Res	ult RL	MDL	Units	DF	Analyzed By Method
Total Organic Carb	on 2.7	1.0	0.72	mg/l	1	06/03/22 17:36 NA SM5310 B-11

Report of Analysis

10 of 17 JD45924





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody

1222516

JD15921 ations Nationwide Alaska

Texas

Florida
Colorado

New Jersey North Carolina

SGS Reference: SGS	5 Dayton, NJ	Devi de da	
2343 Additional Comments: All soils repo	ort out in dry weight	Page 1 of 1	
f Preserv-			
c Used: NOR			
@sgs.com O TYPE			
gs.com T COMP			
A GRAB			
16 ' M=			
Multi MATRIX/ E Incre-			
MATRIX R mental U Aug	S MSD SGS lab #		
CODE S F HS		Location ID	
Water 2 X	1222516001		
Water 2 X	1222516002		G
Water 2 X	1222516003		6
Water 2 X	1222516004	V_	/
	NO		
eceived By: DOD Project?		Data Deliverable Requirements:	
Report to DL (J Fi	Flags)? NO		
pures -	DD/LOQ.	Level 2	
ceived By: Cooler ID:			
Requested T	Turnaround Time an	d-or Special Instructions:	
eceived By			
	0		
Temp Blank °C:	g-2°(, 8	Chain of Custody Seal: (Circle)	
eceived For Laboratory By:			
or A	Ambient []	INTACT BROKEN ABSENT	

✓ SGS North America Inc. CHAIN OF CUSTODY RECORD

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

F088_COC_REF_LAB_20190411

JD45924: Chain of Custody Page 1 of 2

HUNN ARESSONAT



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5 -1

SGS Sample Receipt Summary

Job Number:	JD45924	Client				Project:				
Date / Time Received:	5/27/2022 10	:00:00 AM	Delivery Methe	od: _		Airbill #'s:				
Cooler Temps (Raw Meas	sured) °C: (Cooler 1: (3.1)	;							
Cooler Temps (Corr	ected) °C:	Cooler 1: (2.8)	;							
Cooler Security	Y or N		<u> </u>	or	N	Sample Integrity - Documentation	Y	or	N	
1. Custody Seals Present:		3. COC I				1. Sample labels present on bottles:	\checkmark			
2. Custody Seals Intact:		4. Smpl Dat	es/Time OK 🖌	I		2. Container labeling complete:	\checkmark			
Cooler Temperature	<u>Y</u> o	or N				3. Sample container label / COC agree:	\checkmark			
1. Temp criteria achieved:	\checkmark					Sample Integrity - Condition	Y	or	N	
2. Cooler temp verification:	IF	R Gun	_			1. Sample recvd within HT:	\checkmark			
3. Cooler media:	lce	e (Bag)	_			2. All containers accounted for:				
4. No. Coolers:		1	_			3. Condition of sample:		Intac	t	
Quality Control Preserva	ation Y	or N N//	4			Sample Integrity - Instructions	Y	or	N	N/A
1. Trip Blank present / coole	er:					1. Analysis requested is clear:				
2. Trip Blank listed on COC	: 🗆					2. Bottles received for unspecified tests			\checkmark	
3. Samples preserved prop	erly: 🗸					3. Sufficient volume recvd for analysis:				
4. VOCs headspace free:						4. Compositing instructions clear:				\checkmark
						5. Filtering instructions clear:				\checkmark
Test Strip Lot #s:	рН 1-12:	231619		pH 12	<u>}+:</u>	203117A Other: (Specify)				

Comments

SM089-03 Rev. Date 12/7/17

> JD45924: Chain of Custody Page 2 of 2



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S





General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45924 Account: SGSAKA - SGS North America, Inc. Project: 1222516

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Total Organic Carbon	GP40485/GN29953	1.0	0.0	mg/l	10	9.27	92.7	90-110%

Associated Samples: Batch GP40485: JD45924-1, JD45924-2, JD45924-3, JD45924-4 (*) Outside of QC limits



MATRIX SPIKE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45924 Account: SGSAKA - SGS North America, Inc. Project: 1222516

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Carbon	GP40485/GN29953	JD45924-1	mg/l	4.3	10	16.1	118.0	71-132%
Associated Samples: Batch GP40485: JD45924-1, JD4	45924-2. JD45924-3.	JTD45924-4						

Batch GP40485: JD45924-1, JD45924-2, JD45924-3, JD45924-4 (*) Outside of QC limits (N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY GENERAL CHEMISTRY

Login Number: JD45924 Account: SGSAKA - SGS North America, Inc. Project: 1222516

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Total Organic Carbon	GP40485/GN29953	JD45924-1	mg/l	4.3	10	16.5	2.5	10%
Associated Samples:								

Associated Samples. Batch GP40485: JD45924-1, JD45924-2, JD45924-3, JD45924-4 (*) Outside of QC limits (N) Matrix Spike Rec. outside of QC limits

6



Laboratory Report of Analysis

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

Report Number: 1222568

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 06/20/2022 3:15:15PM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

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Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222568 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

1222595001MS (1666953) MS

SM4500NO3- Total Nitrate/Nitrite- MS recovery does not meet the QC criteria. Refer to the LCS for accuracy.

1222595001MSD (1666954) MSD

SM4500NO3- Total Nitrate/Nitrite- MSD recovery does not meet the QC criteria. Refer to the LCS for accuracy.

1222669001MS (1667462) MS

200.8- MS recoveries for multiple analytes do not meet the QC criteria. The concentration of the parent sample is four times greater than the spike level.

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.

Print Date: 06/20/2022 3:15:17PM

SGS North America Inc.

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

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
В	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.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content. • integrated per SOP.

Print Date: 06/20/2022 3:15:19PM

Note:



Sample Summary										
Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>						
WHADA-SoCr-4.5	1222568001	05/26/2022	05/26/2022	Water (Surface, Eff., Ground)						
WHADA-SoCr-0.05	1222568002	05/26/2022	05/26/2022	Water (Surface, Eff., Ground)						
WHADA-SoCr-4.5	1222568003	05/26/2022	05/26/2022	Water (Surface, Eff., Ground)						
WHADA-SoCr-0.05	1222568004	05/26/2022	05/26/2022	Water (Surface, Eff., Ground)						
<u>Method</u>	Method Des	Method Description								
SM 5310B	Dissolved O	rganic Carbon								
SM21 9223B	E Coli LT2 (Colilert Quant)								
SM21 9222D	Fecal Colifor	rm (MF)								
SM21 2340B	Hardness as	s CaCO3 by ICP-N	IS							
EP200.8	Metals in Dr	inking Water by IC	P-MS DISSO							
EP200.8	Metals in Wa	Metals in Water by 200.8 ICP-MS								
SM21 4500NO3-F	Nitrate/Nitrite	Nitrate/Nitrite Flow injection Pres.								
SM23 4500-N D	TKN by Phe	TKN by Phenate (W)								
SM21 4500P-B,E	Total Phosp	Total Phosphorus (W)								



ab Sample ID: 1222568001	Parameter	Result	<u>Units</u>
Metals by ICP/MS	Calcium	14000	ug/L
-	Hardness as CaCO3	48.3	mg/L
	Magnesium	3230	ug/L
Waters Department	TOC Average, Dissolved	6.35	mg/L
	Total Phosphorus	0.0919	mg/L
Client Sample ID: WHADA-SoCr-0.05			
Lab Sample ID: 1222568002	<u>Parameter</u>	Result	<u>Units</u>
Metals by ICP/MS	Calcium	19400	ug/L
	Hardness as CaCO3	66.9	mg/L
	Magnesium	4490	ug/L
Microbiology Laboratory	E. Coli	GT2420	MPN/100mL
	Fecal Coliform	5.0	col/100mL
Waters Department	TOC Average, Dissolved	5.50	mg/L
	Total Phosphorus	0.0905	mg/L
Client Sample ID: WHADA-SoCr-4.5	-		-
Lab Sample ID: 1222568003	<u>Parameter</u>	Result	Units
Dissolved Metals by ICP/MS	Arsenic	7.22	ug/L
	Barium	9.65	ug/L
	Calcium	14000	ug/L
	Copper	4.19	ug/L
	Iron	380	ug/L
	Magnesium	3230	ug/L
	Manganese	1.03	ug/L
	Potassium	1540	ug/L
	Silicon	9050	ug/L
	Sodium	3740	ug/L
	Zinc	306	ug/L
Client Sample ID: WHADA-SoCr-0.05			
Lab Sample ID: 1222568004	Parameter	Result	Units
Dissolved Metals by ICP/MS	Arsenic	5.58	ug/L
	Barium	12.1	ug/L
	Calcium	19300	ug/L
	Iron	320	ug/L
	Magnesium	4450	ug/L
	Potassium	1840	ug/L
	Silicon	10200	ug/L
	Sodium	6830	ug/L
	Zinc	19.2	ug/L

Print Date: 06/20/2022 3:15:21PM

SGS North America Inc.

Client Sample ID: WHADA-SoCr-4.5 Client Project ID: WHADA Lab Sample ID: 1222568001 Lab Project ID: 1222568							
Results by Metals by ICP/MS <u>Parameter</u> Calcium Magnesium	<u>Result Qual</u> 14000 3230	LOQ/CL 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	<u>DF</u> 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 06/13/22 09:31 06/13/22 09:31
Batch Information Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 09:31 Container ID: 1222568001-D			Prep Initial V		mL		
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 48.3	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 06/13/22 09:31
Batch Information Analytical Batch: MMS11578 Analytical Method: SM21 2340B Analyst: DMM Analytical Date/Time: 06/13/22 09:31 Container ID: 1222568001-D			Prep Initial V				

Results of WHADA-SoCr-4.5							
Client Sample ID: WHADA-SoCr-4.5 Client Project ID: WHADA Lab Sample ID: 1222568001 Lab Project ID: 1222568		R M Se	ollection Da eceived Dat atrix: Water olids (%): ocation:	e: 05/26/2	22 15:24		
Results by Waters Department							
						Allowable	
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
TOC Average, Dissolved	6.35	1.00	0.400	mg/L	1		06/16/22 22:32
Batch Information							
Analytical Batch: WTC3201 Analytical Method: SM 5310B Analyst: EBH Analytical Date/Time: 06/16/22 22:32 Container ID: 1222568001-H							
						Allowable	
				I linite			
	<u>Result Qual</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	
Parameter Total Nitrate/Nitrite-N Batch Information Analytical Batch: WFI2991	<u>Result Qual</u> 0.200 U	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	mg/L	<u>DF</u> 2	Limits	
Total Nitrate/Nitrite-N Batch Information						Limits	<u>Date Analyzed</u> 06/06/22 11:47
Total Nitrate/Nitrite-N Batch Information Analytical Batch: WFI2991 Analytical Method: SM21 4500NO3-F Analyst: DMM Analytical Date/Time: 06/06/22 11:47 Container ID: 1222568001-F	0.200 U	0.200	0.0500	mg/L	2	Allowable	06/06/22 11:47
Total Nitrate/Nitrite-N Batch Information Analytical Batch: WFI2991 Analytical Method: SM21 4500NO3-F Analyst: DMM Analytical Date/Time: 06/06/22 11:47 Container ID: 1222568001-F Parameter				mg/L			
Total Nitrate/Nitrite-N Batch Information Analytical Batch: WFI2991 Analytical Method: SM21 4500NO3-F Analyst: DMM Analytical Date/Time: 06/06/22 11:47 Container ID: 1222568001-F Parameter Total Phosphorus	0.200 U	0.200 LOQ/CL	0.0500	mg/L	2 <u>DF</u>	Allowable	06/06/22 11:47
Total Nitrate/Nitrite-N Batch Information Analytical Batch: WFI2991 Analytical Method: SM21 4500NO3-F Analyst: DMM Analytical Date/Time: 06/06/22 11:47	0.200 U	0.200	0.0500	<u>Units</u> mg/L //XX14231 SM21 450 ne: 06/16/2 t./Vol.: 25 r	2 <u>DF</u> 1 0P-B,E 22 09:30	Allowable	06/06/22 11:47

Print Date: 06/20/2022 3:15:23PM



Results of WHADA-SoCr-4.5

Client Sample ID: WHADA-SoCr-4.5 Client Project ID: WHADA Lab Sample ID: 1222568001 Lab Project ID: 1222568

Collection Date: 05/26/22 10:30 Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Analyst: DMM Analytical Date/Time: 06/16/22 16:31 Container ID: 1222568001-F Prep Batch: WXX14242 Prep Method: METHOD Prep Date/Time: 06/14/22 13:50 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL



Client Sample ID: WHADA-SoCr-0.05 Client Project ID: WHADA Lab Sample ID: 1222568002 Lab Project ID: 1222568	(
Parameter Calcium Magnesium	<u>Result Qual</u> 19400 4490	<u>LOQ/CL</u> 500 50.0	<u>DL</u> 150 15.0	<u>Units</u> ug/L ug/L	<u>DF</u> 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 06/13/22 10:12 06/13/22 10:12
Batch Information Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 10:12 Container ID: 1222568002-E			Prep Batch: Prep Method Prep Date/T Prep Initial V Prep Extract	d: E200.2 ime: 06/10/2 Vt./Vol.: 20	mL		
<u>Parameter</u> Hardness as CaCO3	<u>Result Qual</u> 66.9	<u>LOQ/CL</u> 5.00	<u>DL</u> 5.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 06/13/22 10:12
Batch Information Analytical Batch: MMS11578 Analytical Method: SM21 2340B Analyst: DMM Analytical Date/Time: 06/13/22 10:12 Container ID: 1222568002-E			Prep Batch: Prep Method Prep Date/T Prep Initial V Prep Extract	d: E200.2 ime: 06/10/2 Vt./Vol.: 20	mL		



Results of WHADA-SoCr-0.05						
Client Sample ID: WHADA-SoCr-0.05 Client Project ID: WHADA ab Sample ID: 1222568002 ab Project ID: 1222568	R M S	ollection D eceived Da atrix: Wate olids (%): ocation:	nd)			
Results by Microbiology Laboratory						
					<u>Allowable</u>	
<u>arameter</u>	<u>Result Qual</u>	LOQ/CL	DL	<u>Units</u> DF	Limits	Date Analyze
ecal Coliform	5.0	1.67	1.67	col/100mL 1		05/26/22 17:1
atch Information						
Analytical Batch: BTF19567 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/26/22 17:18 Container ID: 1222568002-A						
					Allowable	
<u>arameter</u> . Coli	<u>Result Qual</u> >2420	<u>LOQ/CL</u> 1	<u>DL</u> 1	<u>Units</u> DF MPN/100rr 1	<u>Limits</u>	<u>Date Analyze</u> 05/26/22 17:4
Batch Information Analytical Batch: BTF19566						
Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/26/22 17:40						
Container ID: 1222568002-B						

SGS	

5	R M Se	eceived Dat atrix: Water olids (%):	te: 05/26/2	22 15:24		
<u>Result Qual</u> 5.50	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.400	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 06/16/22 22:45
			-			
<u>Result Qual</u> 0.200 U	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 06/06/22 11:49
<u>Result Qual</u> 0.0905	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 06/18/22 11:53
	F F F	Prep Method: Prep Date/Tin Prep Initial W	SM21 450 ne: 06/16/2 t./Vol.: 25 r	2 09:30		
<u>Result Qual</u> 1.00 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 06/16/22 16:32
	5.50 Result Qual 0.200 U Result Qual 0.0905	Result Qual LOQ/CL 5.50 1.00 Result Qual LOQ/CL 0.200 U 0.200 Result Qual LOQ/CL 0.200 U 0.200	Received Data Matrix: Water Solids (%): Location: Result Qual 5.50 LOQ/CL 1.00 DL 0.400 Result Qual 0.200 U LOQ/CL 0.400 DL 0.400 Result Qual 0.200 U D.200 D.0.0500 Result Qual 0.200 U LOQ/CL 0.000 DL 0.0500 Result Qual 0.200 U LOQ/CL 0.000 DL 0.0500 Result Qual 0.000 U D.0000 DL 0.0120 Prep Batch: V Prep Method: Prep Date/Tir Prep Initial W Prep Extract Prep Extract	Result Qual LOQ/CL DL Units Result Qual LOQ/CL DL Units 5.50 1.00 0.400 mg/L Result Qual LOQ/CL DL Units 0.200 U 0.200 0.0500 mg/L Result Qual LOQ/CL DL Units 0.200 U 0.200 0.0500 mg/L Prep Batch: WXX14231 mg/L Prep Date/Time: 06/16/2 Prep Initial Wt./Vol.: 25 mL	Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Grossolids (%): Location: Location: Result Qual LOQ/CL DL Units DF 5.50 1.00 0.400 mg/L 1 Result Qual LOQ/CL DL Units DF 0.200 U 0.200 D.0500 mg/L 2 Result Qual LOQ/CL DL Units DF 0.200 U 0.200 0.0500 mg/L 2 Result Qual LOQ/CL DL Units DF 0.0905 0.0400 0.0120 mg/L 1 Prep Batch: WXX14231 Prep Date/Time: 06/16/22 09:30 Prep Date/Time: 06/16/22 D9:30 Prep Extract Voi: 25 mL	Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Ground). Solids (%): Location: Result Qual LOQ/CL DL Units DE Allowable Result Qual LOQ/CL DL Units DE Allowable Result Qual LOQ/CL DL Units DE Allowable Qual LOQ/CL DL Units DE Allowable Result Qual LOQ/CL DL Units DE Allowable Result Qual LOQ/CL DL Units DE Allowable Result Qual LOQ/CL DL Units DE Allowable Imits Output Prep Batch: WXX14231 Prep Date/Time: 06/16/22 09:30 Prep Date/Time: 06/16/22 09:30 Prep Initial WL/Vol: 25 mL Prep Initial WL/Vol: 25 mL Prep Initial WL/Vol: 25 mL

Print Date: 06/20/2022 3:15:23PM



Results of WHADA-SoCr-0.05

Client Sample ID: WHADA-SoCr-0.05 Client Project ID: WHADA Lab Sample ID: 1222568002 Lab Project ID: 1222568

Collection Date: 05/26/22 11:40 Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Analyst: DMM Analytical Date/Time: 06/16/22 16:32 Container ID: 1222568002-G Prep Batch: WXX14242 Prep Method: METHOD Prep Date/Time: 06/14/22 13:50 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL



Results of WHADA-SoCr-4.5

Client Sample ID: WHADA-SoCr-4.5 Client Project ID: WHADA Lab Sample ID: 1222568003 Lab Project ID: 1222568 Collection Date: 05/26/22 10:50 Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Dissolved Metals by ICP/MS

Parameter	Reput Quel	LOQ/CL		Linita		Allowable	Date Analyzed
Aluminum	<u>Result Qual</u> 20.0 U	20.0	<u>DL</u> 6.20	<u>Units</u> ug/L	<u>DF</u> 1	<u>Limits</u>	06/13/22 10:15
	20.0 U	1.00	0.20	•			06/13/22 10:15
Antimony				ug/L	1		
Arsenic	7.22	5.00	1.50	ug/L	1		06/13/22 10:15
Barium	9.65	3.00	0.940	ug/L	1		06/13/22 10:15
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 10:15
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 10:15
Calcium	14000	500	150	ug/L	1		06/13/22 10:15
Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 10:15
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 10:15
Copper	4.19	3.00	1.00	ug/L	1		06/13/22 10:15
Iron	380	250	78.0	ug/L	1		06/13/22 10:15
Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 10:15
Magnesium	3230	50.0	15.0	ug/L	1		06/13/22 10:15
Manganese	1.03	1.00	0.350	ug/L	1		06/13/22 10:15
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 10:15
Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 10:15
Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 10:15
Potassium	1540	500	150	ug/L	1		06/13/22 10:15
Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 10:15
Silicon	9050	1000	310	ug/L	1		06/13/22 10:15
Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:15
Sodium	3740	500	150	ug/L	1		06/13/22 10:15
Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:15
Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:15
Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 10:15
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 10:15
Zinc	306	10.0	3.10	ug/L	1		06/13/22 10:15
				0			

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 10:15 Container ID: 1222568003-A Prep Batch: MXX35151 Prep Method: E200.2 Prep Date/Time: 06/10/22 11:15 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/20/2022 3:15:23PM

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Results of WHADA-SoCr-0.05

Client Sample ID: WHADA-SoCr-0.05 Client Project ID: WHADA Lab Sample ID: 1222568004 Lab Project ID: 1222568 Collection Date: 05/26/22 11:40 Received Date: 05/26/22 15:24 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Dissolved Metals by ICP/MS

Devenueter	Desult Quel		DI	l lucitor		<u>Allowable</u>	Data Analyzad
Parameter	<u>Result Qual</u> 20.0 U	<u>LOQ/CL</u> 20.0	<u>DL</u> 6.20	<u>Units</u>	<u>DF</u> ₄	<u>Limits</u>	<u>Date Analyzed</u> 06/13/22 10:17
Aluminum	20.0 U			ug/L	1		
Antimony		1.00	0.310	ug/L	1		06/13/22 10:17
Arsenic	5.58	5.00	1.50	ug/L	1		06/13/22 10:17
Barium	12.1	3.00	0.940	ug/L	1		06/13/22 10:17
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 10:17
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 10:17
Calcium	19300	500	150	ug/L	1		06/13/22 10:17
Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 10:17
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 10:17
Copper	3.00 U	3.00	1.00	ug/L	1		06/13/22 10:17
Iron	320	250	78.0	ug/L	1		06/13/22 10:17
Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 10:17
Magnesium	4450	50.0	15.0	ug/L	1		06/13/22 10:17
Manganese	1.00 U	1.00	0.350	ug/L	1		06/13/22 10:17
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 10:17
Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 10:17
Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 10:17
Potassium	1840	500	150	ug/L	1		06/13/22 10:17
Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 10:17
Silicon	10200	1000	310	ug/L	1		06/13/22 10:17
Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:17
Sodium	6830	500	150	ug/L	1		06/13/22 10:17
Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:17
Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 10:17
Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 10:17
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 10:17
Zinc	19.2	10.0	3.10	ug/L	1		06/13/22 10:17
				-			

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Analyst: DMM Analytical Date/Time: 06/13/22 10:17 Container ID: 1222568004-A Prep Batch: MXX35151 Prep Method: E200.2 Prep Date/Time: 06/10/22 11:15 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/20/2022 3:15:23PM

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SGS	

		6			
	1836695 [BTF/19566]	Matrix	k: Water (Sur	face, Eff., Ground)	
Blank Lab ID: 166560 QC for Samples:	4				
1222568002					
Results by SM21 922	3B				
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m	
Batch Information					
Analytical Batch: BT Analytical Method: S Instrument: Analyst: M.A Analytical Date/Time	F19566 SM21 9223B : 5/26/2022 5:40:00PM				

Method Blank]			
Blank ID: MB for HBN 1 Blank Lab ID: 1665606		Matrix	k: Water (Surf	ace, Eff., Ground)	
QC for Samples: 1222568002					
_ Results by SM21 9222	D)			
Parameter Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL	
Batch Information					
Analytical Batch: BTF Analytical Method: SM Instrument:					
Analyst: M.A Analytical Date/Time:	5/26/2022 5:18:00PM				

Method Blank

Blank ID: MB for HBN 1837553 [MXX/35151] Blank Lab ID: 1667452 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222568001, 1222568003, 1222568004

Results by EP200.8					
-					
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
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	5.00U	10.0	3.10	ug/L	

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Analytical Date/Time: 6/13/2022 9:23:51AM Prep Batch: MXX35151 Prep Method: E200.2 Prep Date/Time: 6/10/2022 11:15:55AM Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

Print Date: 06/20/2022 3:15:33PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1222568 [MXX35151] Blank Spike Lab ID: 1667453 Date Analyzed: 06/13/2022 09:26

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1222568001, 1222568002, 1222568003, 1222568004

Results by EP200.8

	E	Blank Spike	(ug/L)	
Parameter	Spike	Result	<u>Rec (%)</u>	<u>CL</u>
Aluminum	1000	1030	103	(85-115)
Antimony	1000	1050	105	(85-115)
Arsenic	1000	995	100	(85-115)
Barium	1000	998	100	(85-115)
Beryllium	100	100	100	(85-115)
Cadmium	100	101	101	(85-115)
Calcium	10000	10100	101	(85-115)
Chromium	400	404	101	(85-115)
Cobalt	500	516	103	(85-115)
Copper	1000	1040	104	(85-115)
Iron	5000	5110	102	(85-115)
Lead	1000	1050	105	(85-115)
Magnesium	10000	10200	102	(85-115)
Manganese	500	513	103	(85-115)
Molybdenum	400	385	96	(85-115)
Nickel	1000	1030	103	(85-115)
Phosphorus	500	501	100	(85-115)
Potassium	10000	10300	103	(85-115)
Selenium	1000	1010	101	(85-115)
Silicon	10000	10300	103	(85-115)
Silver	100	100	100	(85-115)
Sodium	10000	10100	101	(85-115)
Thallium	10	9.88	99	(85-115)
Tin	100	101	101	(85-115)
Titanium	100	103	103	(85-115)
Vanadium	200	202	101	(85-115)
Zinc	1000	1030	103	(85-115)

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Prep Batch: MXX35151 Prep Method: E200.2 Prep Date/Time: 06/10/2022 11:15 Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/20/2022 3:15:35PM

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Matrix Spike Summary

Original Sample ID: 1667459 MS Sample ID: 1667460 MS MSD Sample ID: Analysis Date: 06/13/2022 9:31 Analysis Date: 06/13/2022 9:34 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222568001, 1222568002, 1222568003, 1222568004

Results by EP200.8 Matrix Spike (ug/L) Spike Duplicate (ug/L) RPD CL Parameter Sample Spike Result Rec (%) Spike Result Rec (%) CL <u>RPD (%)</u> Aluminum 113 1000 1160 104 70-130 0.500U 1000 1040 104 Antimony 70-130 Arsenic 13.3 1000 1010 100 70-130 Barium 16.2 1000 1010 100 70-130 0.200U 99.5 100 Beryllium 100 70-130 Cadmium 0.250U 100 100 100 70-130 Calcium 14000 10000 24200 102 70-130 Chromium 2.50U 400 403 101 70-130 Cobalt 2.00U 500 514 103 70-130 Copper 1.50U 1000 1030 103 70-130 1350 5000 6490 103 Iron 70-130 Lead 1.00U 1000 1040 104 70-130 13400 3230 Magnesium 10000 101 70-130 Manganese 299 500 811 103 70-130 Molybdenum 0.872J 400 389 97 70-130 Nickel 1.00U 1000 1030 103 70-130 105J 500 99 Phosphorus 601 70-130 Potassium 1580 10000 11900 103 70-130 Selenium 2.50U 1000 1010 101 70-130 Silicon 9090 105 10000 19600 70-130 Silver 0.500U 100 100 100 70-130 Sodium 3750 10000 13800 101 70-130 Thallium 0.500U 10.0 9.92 99 70-130 Tin 0.500U 100 100 100 70-130 Titanium 12.5U 109 109 100 70-130 Vanadium 10.0U 200 202 101 70-130 Zinc 63.8 1000 1090 103 70-130

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Analytical Date/Time: 6/13/2022 9:34:37AM Prep Batch: MXX35151 Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/10/2022 11:15:55AM Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL

Print Date: 06/20/2022 3:15:36PM

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Matrix Spike Summary

Original Sample ID: 1222669001 MS Sample ID: 1667462 MS MSD Sample ID: Analysis Date: 06/13/2022 9:37 Analysis Date: 06/13/2022 9:40 Analysis Date: Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222568002, 1222568003, 1222568004

Results by EP200.8

		Ма	trix Spike (ug/L)	Spik	e Duplicate	ə (ug/L)			
<u>Parameter</u>	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Arsenic	26.7	1000	1020	99				70-130		
Beryllium	0.400U	100	96.7	97				70-130		
Cadmium	0.500U	100	98.2	98				70-130		
Chromium	5.00U	400	398	99				70-130		
Cobalt	10.1	500	513	101				70-130		
Copper	13.2	1000	1000	99				70-130		
Lead	6.02	1000	1030	102				70-130		
Nickel	41.6	1000	1050	101				70-130		
Silver	1.00U	100	96.2	96				70-130		
Tin	1.00U	100	99.4	99				70-130		
Zinc	445	1000	1460	102				70-130		

Batch Information

Analytical Batch: MMS11578 Analytical Method: EP200.8 Instrument: P7 Agilent 7800 Analyst: DMM Analytical Date/Time: 6/13/2022 9:40:00AM Prep Batch: MXX35151 Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/10/2022 11:15:55AM Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL

Method Blank					
Blank ID: MB for HBN 183 Blank Lab ID: 1666822	37158 [WFI/2991]	Matri	x: Water (Surfac	ce, Eff., Ground)	
QC for Samples: 1222568001, 1222568002					
Results by SM21 4500NC)3-F)			
P <u>arameter</u> Nitrate-N	<u>Results</u> 0.100U	<u>LOQ/CL</u> 0.200	<u>DL</u> 0.0500	<u>Units</u> mg/L	
Nitrite-N	0.100U	0.200	0.0500	mg/L	
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L	
Analytical Batch: WFI29 Analytical Method: SM2 ⁷ Instrument: Astoria segn Analyst: DMM	1 4500NO3-F nented flow				
Analytical Date/Time: 6/6					

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lethod Blank					
lank ID: MB for HBN 18 lank Lab ID: 1666955 C for Samples:	37158 [WFI/2991]	Matrix	x: Water (Surfa	ce, Eff., Ground)	
· · · · · · · · · · · · · · · · · · ·					
Results by SM21 4500NC	D3-F	·			
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
litrate-N	0.100U	0.200	0.0500	mg/L	
litrite-N	0.100U	0.200	0.0500	mg/L	
otal Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L	
atch Information					
Analytical Batch: WFI29	001				
Analytical Method: SM2	1 4500NO3-F				
Instrument: Astoria segr					
Analyst: DMM					
An al still al Data (Time as 0)	00000 0.04.00004				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
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Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
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Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				
Analytical Date/Time: 6/	/6/2022 3:01:23PM				



Blank Spike ID: LCS for H Blank Spike Lab ID: 1660 Date Analyzed: 06/06/2	823	[WFI2991]		Matrix: Water (Surface, Eff., Ground)
	568001, 122256	8002		
Results by SM21 4500NC			_	
Demonster		Blank Spike		
Parameter	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u> 101	<u>CL</u>
Nitrate-N Nitrite-N	2.5 2.5	2.52 2.49	101	(70-130) (90-110)
Total Nitrate/Nitrite-N	5	5.01	100	(90-110)
Batch Information Analytical Batch: WFI299 Analytical Method: SM21 Instrument: Astoria segm Analyst: DMM	4500NO3-F			



Blank Spike ID: LCS for H Blank Spike Lab ID: 1666 Date Analyzed: 06/06/20	6952	[WFI2991]		Matrix: Water (Surface, Eff., Ground)
QC for Samples: 1222	568001, 122256	68002		
Results by SM21 4500NC)3-F			
		Blank Spike	e (mg/L)	
Parameter	Spike	Result	<u>Rec (%)</u>	<u>CL</u>
Nitrate-N	2.5	2.69	108	(70-130)
Nitrite-N	2.5	2.59	104	(90-110)
Total Nitrate/Nitrite-N	5	5.29	106	(90-110)
Batch Information				
Analytical Batch: WFI299 Analytical Method: SM21 Instrument: Astoria segm Analyst: DMM	4500NO3-F			



Bla	ank	Spike	Summary
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Blank Spike ID: LCS for HBN 1222568 [WFI2991] Blank Spike Lab ID: 1666956 Date Analyzed: 06/06/2022 14:59

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

-			
	E	Blank Spike	e (mg/L)
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>
Nitrate-N	2.5	2.69	107
Nitrite-N	2.5	2.79	112
Total Nitrate/Nitrite-N	5	5.48	110

Batch Information

Analytical Batch: WFI2991 Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow Analyst: DMM



Matrix Spike Summary

Batch Information

Analyst: DMM

Analytical Batch: WFI2991

Analytical Method: SM21 4500NO3-F Instrument: Astoria segmented flow

Analytical Date/Time: 6/6/2022 11:16:21AM

Original Sample ID: 1222587001 Analysis Date: 06/06/2022 11:14 MS Sample ID: 1666824 MS Analysis Date: 06/06/2022 11:16 MSD Sample ID: 1666825 MSD Analysis Date: 06/06/2022 11:18 Matrix: Drinking Water QC for Samples: 1222568001, 1222568002 Results by SM21 4500NO3-F Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> Total Nitrate/Nitrite-N 3.73 5.00 9.12 108 5.00 9.18 109

Print Date: 06/20/2022 3:15:45PM

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200 West Potter Drive Anchorage, AK 95518 t 907.562.2343 f 907.561.5301 www.us.sgs.com CL

90-110

<u>RPD (%)</u>

0.62

RPD CL

(< 25)



Matrix Spike Summary

Original Sample ID: 1222595001 MS Sample ID: 1666953 MS MSD Sample ID: 1666954 MSD Analysis Date: 06/06/2022 13:40 Analysis Date: 06/06/2022 13:42 Analysis Date: 06/06/2022 13:44 Matrix: Drinking Water

QC for Samples: 1222568001, 1222568002

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD C
Total Nitrate/Nitrite-N	0.954	5.00	6.58	113 *	5.00	6.92	119 *	90-110	5.00	(< 25)
Analytical Method: SM2	1 4500NO3-F mented flow									

Print Date: 06/20/2022 3:15:45PM

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– Method Blank								
Blank ID: MB for HBN 18 Blank Lab ID: 1666859	337171 [WXX/14231]	Matriz	x: Water (Surfa	ice, Eff., Ground)				
QC for Samples: 1222568001, 1222568002								
Results by SM21 4500P	B,E							
<u>Parameter</u> Total Phosphorus	<u>Results</u> 0.0200U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L				
Batch Information								
Analytical Batch: WDA5 Analytical Method: SM2 Instrument: Discrete Ar Analyst: DMM Analytical Date/Time: 6	21 4500P-B,E alyzer 2	Prep Batch: WXX14231 Prep Method: SM21 4500P-B,E Prep Date/Time: 6/16/2022 9:30:00AM Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL						

Print Date: 06/20/2022 3:15:50PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222568 [WXX14231] Blank Spike Lab ID: 1666860 Date Analyzed: 06/18/2022 11:46 Spike Duplicate ID: LCSD for HBN 1222568 [WXX14231] Spike Duplicate Lab ID: 1666861 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222568001, 1222568002

Results by SM21 4500P-B,E Blank Spike (mg/L) Spike Duplicate (mg/L) Parameter <u>Rec (%)</u> <u>Spike</u> Result <u>Rec (%)</u> <u>Spike</u> <u>CL</u> <u>RPD (%)</u> RPD CL Result **Total Phosphorus** 0.192 0.2 0.197 (< 25) 0.2 96 98 (75-125) 2.30 **Batch Information** Analytical Batch: WDA5220 Prep Batch: WXX14231 Analytical Method: SM21 4500P-B,E Prep Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2 Prep Date/Time: 06/16/2022 09:30 Analyst: DMM Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 06/20/2022 3:15:52PM



Matrix Spike Summary Original Sample ID: 1222742001 Analysis Date: 06/18/2022 11:48 MS Sample ID: 1666862 MS Analysis Date: 06/18/2022 11:49 MSD Sample ID: 1666863 MSD Analysis Date: 06/18/2022 11:50 Matrix: Drinking Water QC for Samples: 1222568001, 1222568002 Results by SM21 4500P-B,E Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> <u>RPD (%)</u> RPD CL CL 0.0610 **Total Phosphorus** 0.200 .273 106 0.200 0.268 103 75-125 2.10 (< 25) **Batch Information** Analytical Batch: WDA5220 Prep Batch: WXX14231 Analytical Method: SM21 4500P-B,E Prep Method: Total Phosphorus (W) Ext. Instrument: Discrete Analyzer 2 Prep Date/Time: 6/16/2022 9:30:00AM Analyst: DMM Prep Initial Wt./Vol.: 25.00mL Analytical Date/Time: 6/18/2022 11:49:08AM Prep Extract Vol: 25.00mL

Print Date: 06/20/2022 3:15:54PM

SGS North America Inc.

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

Member of SGS Group

SGS

Blank ID: MB for HBN 1837996 [WXX/14242] Blank Lab ID: 1668425 C for Samples: 222568001, 1222568002		Matri	x: Water (Surfa	ce, Eff., Ground)
Results by SM23 4500-N I)			
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Results</u> 0.500U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L
atch Information				
Analytical Batch: WDA52 Analytical Method: SM23 Instrument: Discrete Anal Analyst: DMM Analytical Date/Time: 6/1	Prep Me Prep Da Prep Ini	atch: WXX14242 ethod: METHOD ate/Time: 6/14/20 tial Wt./Vol.: 25 attract Vol: 25 mL	022 1:50:00PM	

Print Date: 06/20/2022 3:15:55PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1222568 [WXX14242] Blank Spike Lab ID: 1668426 Date Analyzed: 06/16/2022 16:01 Spike Duplicate ID: LCSD for HBN 1222568 [WXX14242] Spike Duplicate Lab ID: 1668427 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222568001, 1222568002

Results by SM23 4500-N D			_						
	Blank Spike	pike (mg/L) Spike Duplicate (mg/L)							
Parameter	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Total Kjeldahl Nitrogen	4	3.64	91	4	3.96	99	(75-125)	8.40	(< 25)
Batch Information Analytical Batch: WDA5218	500-N D				p Batch: W p Method:				

Print Date: 06/20/2022 3:15:57PM



Matrix Spike Summary

Original Sample ID: 1222300001 MS Sample ID: 1668428 MS MSD Sample ID: 1668429 MSD

QC for Samples: 1222568001, 1222568002

Analysis Date: 06/16/2022 16:03 Analysis Date: 06/16/2022 16:05 Analysis Date: 06/16/2022 16:06 Matrix: Water (Surface, Eff., Ground)

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
Parameter	<u>Sample</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
otal Kjeldahl Nitrogen	0.500U	4.00	4.14	104	4.00	4.28	107	75-125	3.20	(< 25)
Batch Information Analytical Batch: WDA52 Analytical Method: SM23 Instrument: Discrete Anal Analyst: DMM Analytical Date/Time: 6/10	4500-N D yzer 2	PM		Prep Prep Prep	Method: Date/Tim Initial Wt		n TKN by Pl 022 1:50:0 00mL	()	

Print Date: 06/20/2022 3:15:58PM



SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

Att 385380 AL

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,	-		Morgan Brown	ONE #: 907-	451-214	1	SEC	TION 3			- 10 ¹ 01 17 2 1 7 7 7 7 7 100	P	RESE	RVATIV	'E				Page <u> </u> of <u> </u>
	-	project Name: V	VHADA PWS PER	MIT #:	22 464		# C	SAMPLE TYPE:	Na2SO4	Na2SO4	HNO3		HNO3		H2SO4				
				AIL: Morgar	n.Brown@a	alaska.gov	O N T	N T Grab		E. Coli	al Hg	5.1 Total Hg ^{8 Dissolved Metals}	ardness	b Filter)	, NO2				
	1	INVOICE TO	ADEC P.O	DTE #: . #:			A I N	MI (Multi- incre-	2D Fecal		1 Total	issolved (er)	2340B Total hardness	5301B DOC (Lab Filter)) T-Phos KN				
¥0	11 BAC 841 DE	RESERVED FOR LAB U <u>SE</u>	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D Fecal Coliform	SM92223B	245.	200.8 D (Lab Fill	2340B	5301B [SM4500 T-Phos, NO2 +NO3,TKN				REMARKS/ LOC ID
lauar	1000	(IAE)	WHADA-SoCr - 4.5	5/26/22	10.30	W	5	Grab		1	×	×	\times	X	×				
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n rgnts		/ MA		5/24/22 DATE	12:00	RECEIVED	BV .				Coole							CTDUCT	
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a Inc	SECTION	RELINQUISI	IED BY:(3)	DATE	TIME	RECEIVED	BY:						Maridanajat			1967 State 1964			
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© SGS				5/26/22	15:24	Han	de	¥_					Section 25		eipt Fon	m)	(5	e attach	ed Sample Receipt Form)
														ff	$\left(\right)$	h	ttp://ww	w.sqs.c	com/terms-and-conditions

F101_eCOC_Revised_2014-12-10 Page 35 of 57

1222568



Project Information Form

This form provides clarification and/or additional information for sample login, and should be scanned with the receiving paperwork.

-	
Client Name:	ADEC
Project:	WHADA
	5/26/2022
Reason for	Analytical requests
Clarification:	
Notes:	E. coli = LT2 Quantitray
	200.8 Dissolved Metals = 200.8 Dissolved Metals Scan (needs Lab Filter, then preservation)
	DOC also needs Lab Filter then preservation
	T-Phos, NO2NO3, TKN = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite-N, and 4500 TKN

AIRBILL 9924319

I hereby declare that the goods contained herein do not contain dangerous goods.

Date

Signed.....

FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International Sender: SARAH APSENS Receiver: ALLIE @ SGS

907-550-3217

907-741-1026

Description & Comment Standard Freight

Received in good condition by:

CUSTOMER COPY

AIRBILL 9924319

I hereby declare that the goods contained herein do not contain dangerous goods.

Date

Signed.....

6420 Kulis Dr. Anchorage, AK 99502 Phone: 1 (888) 359-4726

Grant Aviation

Grant Aviation

Phone: 1 (888) 359-4726

Email: res@flygrant.com

Web: http://www.flygrant.com/ GRANT AVIATION

Handle Fee

Freephone: 1 (888) 359-4726

6420 Kulis Dr. Anchorage, AK 99502

Wgt.

19

Quan.

1

Freephone: 1 (888) 359-4726 Email: res@flygrant.com Web: http://www.flygrant.com/ GRANT AVIATION



Flight Departs: May 26 22 12:40 PM

Total

\$28.24

\$1.76

\$30.00

\$0.00

Accepted: Thu, May 26 22 12:28:00 PM

Hazmat Fee

Total Tax:

Total Unpaid:

Total Payments made:

FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Sender: SARAH APSENS Receiver: ALLIE @ SGS 907-741-1026 907-550-3217

Flight Departs: May 26 22 12:40 PM Accepted: Thu, May 26 22 12:28:00 PM

Description & Comment	Quan.	W	gt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1		19	-	-	\$28.24
						\$1.76
AX: Federal Excise Tax				Total Pa	yments made:	\$30.00
				T	otal Unpaid:	\$0.00

TERMS AND CONDITIONS

Consignemnt Note Text

Alert Expeditors Inc.

#419603

Citywide Delivery • 440-3351 8421 Flamingo Drive • Anchorage, Alaska 99502

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Collect	Prepay	Advance	Charges
Job #	PO#		
	1 Cust.	•	
· · · · · · · · · · · · · · · · · · ·			Grant
	1724 3140		
Shipped Signature			
	NOm 10	Total Charge	

000	e-Sam	ole Receipt Form	
202	SGS Workorder #:	1222568	1222568
Re	eview Criteria	Condition (Yes, No, N/A	Exceptions Noted below
	dy / Temperature Requirements		and COC seal information is found on the chain of custody for
DOD only: Did all sa	ample coolers have a corresponding		
	If <0°C, were sample containers ice		
	Note containers receive	ed with ice:	
Identify any cor	ntainers received at non-compliant te (Use form FS-0029 if more space		
	=		-083 "Sample Guide" for specific holding times and sample contain
	les received within analytical holding labels match COC? Record discrepa		
Note: If information on	containers differs from COC, default nes differ <1hr, record details & login	t to COC per COC.	
	Were analytical requests or analyses with multiple option for m vs 8260, Metals 6020 vs 200.8)		
	ers (type/mass/volume/preservative) metals analysis by 200.8/6020 in wa		
	equirements (VOC, GRO, LL-He		
	d with a corresponding % solids cont		
	e.g., VOAs, LL-Hg) in cooler with sar		
	free of headspace (e.g., bubbles ≤ 6		
	VOAs field extracted with Methanol-		
Note to Client: An			procedures and may impact data quality.
	Additional	notes (if applicable):	



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	Container Id	<u>Preservative</u>	Container Condition
1222568001-B	HNO3 to pH < 2	ОК			
1222568001-C	No Preservative Required	OK			
1222568001-D	HNO3 to pH < 2	ОК			
1222568001-E	No Preservative Required	ОК			
1222568001-F	H2SO4 to pH < 2	ОК			
1222568001-G	HNO3 to $pH < 2$	ОК			
1222568001-H	HCL to $pH < 2$	ОК			
1222568002-A	Na2S2O3 for Chlorine Redu	ОК			
1222568002-B	Na2S2O3 for Chlorine Redu	ОК			
1222568002-C	HNO3 to $pH < 2$	ОК			
1222568002-D	No Preservative Required	ОК			
1222568002-E	HNO3 to $pH < 2$	ОК			
1222568002-F	No Preservative Required	ОК			
1222568002-G	H2SO4 to pH < 2	ОК			
1222568002-H	HNO3 to $pH < 2$	ОК			
1222568002-I	HCL to $pH < 2$	ОК			
1222568003-A	No Preservative Required	ОК			
1222568003-B	No Preservative Required	ОК			
1222568004-A	No Preservative Required	ОК			
1222568004-B	No Preservative Required	ОК			

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.



Orlando, FL

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

Technical Report for

SGS North America, Inc

1222568

SGS Job Number: FA96091



Sampling Date: 05/26/22

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



Norme Farm

Norm Farmer Technical Director

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.

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 This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

SGS North America Inc. • 4405 Vineland Road • Suite C-15 • Orlando, FL 32811 • tel: 407-425-6700 • fax: 407-425-07

Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



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06/08/22

e-Hardcopy 2.0 Automated Report

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6.1: Prep QC MP40801: Hg	13



Sample Summary

SGS North America, Inc

1222568

Job No: FA96091

Sample	Collected			Matr	ix	Client		
Number	Date	Time By	Received	Code	е Туре	Sample ID		
FA96091-1	05/26/22	10:30	06/01/22	AQ	Water	WHADA-SOCR-4.5		
FA96091-2	05/26/22	11:40	06/01/22	AQ	Water	WHADA-SOCR-0.05		

SAMPLE DELIVERY GROUP CASE NARRATIVE

|--|

Site: 1222568

Job No: FA96091

Report Date: 6/8/2022 12:12:01 PM

On 06/01/2022, 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 3.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA96091 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: MP40801

Sample(s) FA96137-1MS, FA96137-1MSD, FA96137-1SDL, FA96137-1DUP were used as the QC samples for metals. RPD(s) for Duplicate for Mercury are outside control limits for sample MP40801-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Mercury are outside control limits for sample MP40801-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

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: FA96091

Account: SGS North America, Inc Project: 1222568 Collected: 05/26/22

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

FA96091-1 WHADA-SOCR-4.5

No hits reported in this sample.

FA96091-2 WHADA-SOCR-0.05

No hits reported in this sample.

ω





Orlando, FL

Sample Results

Report of Analysis

4



SGS North America Inc.

				Rep	ort of A	analysis		Page 1 of 1
Client Sampl Lab Sample I Matrix:	ID: F	VHADA-SOO A96091-1 .Q - Water	CR-4.5				Date Sampled: Date Received: Percent Solids:	
Project: Total Metals		222568						
Analyte	Resul	t RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.5	0 0.50	ug/l	1	06/07/22	06/07/22 JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18725
 (2) Prep QC Batch: MP40801





SGS North America Inc.

				Rep	ort of A	nalysis		Page 1 of 1
Client Sample Lab Sample II Matrix:	D: FA96	DA-SOC 091-2 Water	R-0.05				Date Sampled: Date Received: Percent Solids:	
Project:	12225	568					rercent sonus:	ii/a
Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/07/22	06/07/22 JC	EPA 245.1 ¹	EPA 245.1 ²

(1) Instrument QC Batch: MA18725(2) Prep QC Batch: MP40801

Page 1 of 1

4.2





Orlando, FL

Section 5

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody

SGS North America Inc. CHAIN OF CUSTODY RECORD



Locations Nationwide Alaska Flori

Alaska Florida New Jersey Colorado Texas North Carolina Virginia Louisiana

					-				_					www.us	s.sgs.com
CLIENT:	SGS North Ame	lorth America Inc Alaska Division			SG	S Refere	nce:			S	GS	Orla	ndo, FL		Devider
CONTACT:	Julie Shumway	PHONE NO:	(907) 56	52-2343	Addi	itional	Comn	nents	: All	soils	repo	rt ou	t in dry weig	ht unless	Page 1 of 1
PROJECT NAME:	1222568	PWSID#: NPDL#:			# c	-	HINOS								
REPORTS TO	: Julie Shumway		Julie.Shumw RefLabTeam(N T	C =	Total								
	SGS - Alaska ka.accounting@sgs.com	QUOTE #: P.O. #:	1222	2568	A I N	G = GRAB MI = Multi	245.1, To								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	ТІМЕ ННММ	MATRIX/ MATRIX CODE	E R S	Multi Incre- mental Solis	Mercury 2				MS	MSD	SGS lab #		Location ID
	WHADA-SoCr-4.5	05/26/2022	10:30:00	Water	1		X						1222568001		
2	WHADA-SoCr-0.05	05/26/2022	11:40:00	Water	1		X						1222568002		
								_							/
	-					-					1	NITIAL	ASSESSMENT		
											L	ABEL	VERIFICATION	~~	w
														3.	OIRFI
Relinquished	By: (1)	Date	Time	Received E	By: 6/1/22				DOD Project? NO					Data Delive	rable Requirements:
A	MUMUHU	5/31/20	945	pul ?	mn	À	94	15	Report If J- Rep	t to DL	. (J FI	ags)? /LOQ.	NO	<u> </u>	Level 2
Relinquished	By: (2)	Date	Time	Received E	3у:				Cooler Rec		ed T	urnar	ound Time a	nd-or Spec	ial Instructions:
Relinquished	Ву: (3)	Date	Time	Received E	3y:				Temp	Blank	°C:	5.0		Chain of C	ustody Seal: (Circle)
Relinquished	Ву: (4)	Date	Time	Received F	or Lal	boratory	By:					nbient		-	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

F088_COC_REF_LAB_20190411

FA96091: Chain of Custody Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA96091 Clier Date / Time Received: 6/1/2022 9:45:00 AM			Clier	t: SGS AL	ASKA	Project: 1222568	Project: 1222568				
			Deliver	y Method: FEDEX	Airbill #'s: 1483 48	Airbill #'s: 1483 4802 3078					
Therm ID: IR 1;				Therm (CF: 0.4;	# of Coo	lers: 1				
Cooler Temps (Raw Meas	ured) °C:	Coo	er 1: (3	8.0);							
Cooler Temps (Corre	cted) °C:	Coo	er 1: (3	8.4);							
Cooler Information	Y	or	N		Sample Inf	ormation	Y or	N	N/A		
1. Custody Seals Present	\checkmark				1. Sample la	abels present on bottles					
2. Custody Seals Intact	\checkmark				2. Samples	preserved properly					
3. Temp criteria achieved	\checkmark				3. Sufficient	volume/containers recvd for analysis					
4. Cooler temp verification	IR	<u>Gun</u>			4. Condition	of sample	Intact				
5. Cooler media	lce	<u>(Bag)</u>			5. Sample re	ecvd within HT	\checkmark				
					6. Dates/Tin	nes/IDs on COC match Sample Labe	I 🗸				
Trip Blank Information	Y	or	N	N/A	7. VOCs ha	ve headspace			\checkmark		
1. Trip Blank present / cooler				\checkmark	8. Bottles re	ceived for unspecified tests		\checkmark			
2. Trip Blank listed on COC				\checkmark	9. Composit	ing instructions clear			\checkmark		
	w	or	c	N/A	10. Voa Soil	Kits/Jars received past 48hrs?			\checkmark		
2 Ture Of TD Descined		01			11. % Solids	s Jar received?			\checkmark		
3. Type Of TB Received				\checkmark	12. Residua	I Chlorine Present?					
Misc. Information											
Number of Encores: 25-G	ram		5-Grar	n	Number of 5035 Fiel	d Kits: Number of	Lab Filtered M	letals:			
Test Strip Lot #s:					pH 10-12			-			
Residual Chlorine Test Strip											
Comments											
SM001 Rev. Date 05/24/17 Techni	cian: SAI	NUELN	Л	Date	6/1/2022 9:45:00 AM	Reviewer:		Date:			

FA96091: Chain of Custody Page 2 of 2





Orlando, **FL**

Section 6

Metals Analysis

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: FA96091 Account: SGSAKA - SGS North America, Inc Project: 1222568

QC Batch ID: MP40801 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:					06/07/22
Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.16	<0.50

Associated samples MP40801: FA96091-1, FA96091-2

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

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Login Number: FA96091 Account: SGSAKA - SGS North America, Inc Project: 1222568

QC Batch ID: Matrix Type:				Methods: EPA 245.1 Units: ug/l					
Prep Date:		06/07/22	2				06/07/22		
Metal	FA96137-1 Original DUP	RPD	QC Limits	FA96137- Original		Spikelot HGFLWS1	% Rec	QC Limits	
Mercury	0.072 0.0	42 52.6 (a)	0-10	0.072	2.2	3	70.9	70-130	

Associated samples MP40801: FA96091-1, FA96091-2

Results < IDL are shown as zero for calculation purposes (*) Outside of QC limits $% \left({\left({{{\rm{A}}} \right)_{\rm{A}}} \right)$

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

6

Login Number: FA96091 Account: SGSAKA - SGS North America, Inc Project: 1222568

QC Batch ID: MP40801	Methods: EPA 245.1
Matrix Type: AQUEOUS	Units: ug/l
Prep Date:	06/07/22

Metal	FA96137- Original		Spikelot HGFLWS1		MSD RPD	QC Limit
Mercury	0.072	2.4	3	77.6	8.7	

Associated samples MP40801: FA96091-1, FA96091-2

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

6



Page 2

Login Number: FA96091 Account: SGSAKA - SGS North America, Inc Project: 1222568

QC Batch ID:	MP40801
Matrix Type:	AQUEOUS

Methods: EPA 245.1 Units: ug/l

Prep Date:			06/07/22	
Metal	BSP Result	Spikelot HGFLWS1		QC Limits
Mercury	3.0	3	100.0	85-115

Associated samples MP40801: FA96091-1, FA96091-2

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

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SERIAL DILUTION RESULTS SUMMARY

Login Number: FA96091 Account: SGSAKA - SGS North America, Inc Project: 1222568

QC Batch ID: MP40801	Methods: EPA 245.1
Matrix Type: AQUEOUS	Units: ug/l
Prep Date:	06/07/22

Associated samples MP40801: FA96091-1, FA96091-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).





Laboratory Report of Analysis

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

Report Number: 1222617

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 Alexandra 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.

Alexandra Lambe Project Manager Alexandra.Lambe@sgs.com Date

Print Date: 06/06/2022 8:46:19AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Results via Engage

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Case Narrative

SGS Client: ADEC-Air & Water Quality SGS Project: 1222617 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.

Print Date: 06/06/2022 8:46:21AM

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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 <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
В	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.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content. • integrated per SOP.

Print Date: 06/06/2022 8:46:22AM

Note:



Sample Summary									
lient Sample ID VHADA-SoCr-0.05	<u>Lab Sample ID</u> 1222617001	<u>Collected</u> 05/31/2022	<u>Received</u> 05/31/2022	<u>Matrix</u> Water (Surface, Eff., Ground)					
<u>Method</u>	Method Des	cription							
SM21 9223B	E Coli LT2 (Colilert Quant)							
SM21 9222D	Fecal Colifo	rm (MF)							

Print Date: 06/06/2022 8:46:23AM



Detectable Results Summary

Client Sample ID: WHADA-SoCr-0.05

Lab Sample ID: 1222617001 Microbiology Laboratory

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Parameter E. Coli Fecal Coliform <u>Result</u> 24 30 <u>Units</u> MPN/100mL col/100mL

Print Date: 06/06/2022 8:46:24AM

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Results of WHADA-SoCr-0.05						
Client Sample ID: WHADA-SoCr-0.05 Client Project ID: WHADA .ab Sample ID: 1222617001 .ab Project ID: 1222617	C R M S L	und)				
Results by Microbiology Laboratory			_			
P <u>arameter</u> Fecal Coliform	<u>Result Qual</u> 30	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> DF col/100mL 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzec</u> 05/31/22 15:04
Batch Information						
Analytical Batch: BTF19570 Analytical Method: SM21 9222D Analyst: M.A Analytical Date/Time: 05/31/22 15:04 Container ID: 1222617001-A						
Parameter	Result Qual	LOQ/CL	DL	<u>Units DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyzed
. Coli	24	1	1	MPN/100m1		05/31/22 15:5
Batch Information						
Analytical Batch: BTF19572 Analytical Method: SM21 9223B Analyst: M.A Analytical Date/Time: 05/31/22 15:58 Container ID: 1222617001-B						

Print Date: 06/06/2022 8:46:26AM

SGS

		1						
Method Blank								
Blank ID: MB for HBN Blank Lab ID: 1665924		Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1222617001								
Results by SM21 9222	D							
Parameter Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL				
Batch Information Analytical Batch: BTF Analytical Method: SI Instrument: Analyst: M.A Analytical Date/Time:								

Print Date: 06/06/2022 8:46:27AM

SGS

Method Blank					
-	N 1836781 [BTF/19572] 62	Matri	x: Water (Sur	face, Eff., Ground)	
Results by SM21 922	23B				
<u>Parameter</u> E. Coli	<u>Results</u> 1U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100m	
Analyst: M.A Analytical Date/Time	e: 5/31/2022 3:58:00PM				

Print Date: 06/06/2022 8:46:31AM



SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD



Donfile	# 3853	80	\mathcal{A}
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	CONTACT	но мorgan Brown	ONE #: 907-	451-214	1	SEC	TION 3				P	RESE	RVATIN	/E		<u>a. 2 54. m.a. 1962 a</u>		Page of
CECTION	PROJECT NAME:	WHADA PWS PER	DJECT/ SID/ NTF MIT #:			# C	SAMPLE TYPE:	Na2SO4	Na2SO4	HN03		HNO3		H2SO4				
Ū			AIL: Morga	n.Brown@a	alaska.gov	1 '	Comp Grab		E. Coli	al Hg	Metals	rdness	o Filter)	NO2				
		• ADEC P.O	DTE #: . #:			A I N	MI (Multi- incre-	SM9222D Fecal Coliform		1 Total	200.8 Dissolved Metals (Lab Filter)	2340B Total hardness	5301B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				-
461	RESERVE FOR LAI	SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9223 Coliform	SM9223B	245.1	200.8 D (Lab Fill	2340B	5301B [SM4500 +NO3,T				REMARKS/ LOC ID
agene	(IAB	WHADA-SOCr-0.05	5/31/22	9:42	WATER	2	Grab	×	×									
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- 2014 – All n	RELINQU	SHED BY:(2)	DATE	тіме	RECEIVED	BY:	\supset					URNAR	OUND T	IME AND	/OR SPE		STRUCTK	DNS
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http://www.sgs.com/terms-and-conditions

AIRBILL 9941512

I hereby declare that the goods contained herein do not contain dangerous goods.

Date

Signed.....

Grant Aviation

6420 Kulis Dr. Anchorage, AK 99502 Phone: 1 (888) 359-4726 Freephone: 1 (888) 359-4726 Email: res@flygrant.com



FREIGHT DETAILS						<u></u>
FROM/TO: Kenai -> Anchorag	ge International			Flight	Departs: May 31 2	22 10:40 AM
Receiver: allie lambe 907-550-3217	Sender: DEC 907-451-2141			Accepted	I: Tue, May 31 22	10:30:00 AM
Description & Comment		Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight		1	- 9	-	-	\$28.24
				· · · · · · · · · · · · · · · · · · ·	Total Tax:	\$1.76
				Total Pa	ayments made:	\$30.00
Received in good condition by:				Т	otal Unpaid:	\$0.00
		6420 k	Kulis Dr. Anchor			9
AIRBILL 994151	12		Grant	Aviation	• •	
I hereby declare that the goods con	tained herein do not contain dangerous goods.	_		888) 359-4726		2
Signed	Date	F	reephone: 1 (888) 359-4726 @flygrant.com	X	
		w	eb: http://www		GRANT AVIAT	ION
FREIGHT DETAILS						
FROM/TO: Kenai -> Anchorag	ge International			Flight	Departs: May 31	22 10:40 AM
Receiver: allie lambe 907-550-3217	Sender: DEC 907-451-2141			Accepte	d: Tue, May 31 22	10:30:00 AM
Description & Comment		Quan.	Wgt.	Handle Fee	Hazmat Fee	Total

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1	9	-	-	\$28.24
TAX: Federal Excise Tax					\$1.76
	Total Payments made:				
			т	otal Unpaid:	\$0.00

TERMS AND CONDITIONS

Consignemnt Note Text

Alert Expeditors Inc.

#419610

Citywide Delivery • 440-3351 8421 Flamingo Drive • Anchorage, Alaska 99502

Date 53127	トア	•		
From	<u>Ł.J. 6-a (</u>			
To	545			
Collect	Advance	Advance Charges		
Job #	PO#			
	1Rov	941		
	1		Grat	
9	941512			
Shipped Signature				
		Total Charge		
Received By:		Page 11 of 13		

000	e-Sample Receipt Form					
<u> 565</u>	SGS Workorder #:	1222617		1222617		
Re	eview Criteria	Condition (Yes, No, N/A	Exceptio	ns Noted below		
Chain of Custo	dy / Temperature Requirements	Note: Temperature	and COC seal informat	ion is found on the chain of custody form		
DOD only: Did all sa	mple coolers have a corresponding					
	If <0°C, were sample containers ice					
	Note containers receive	<mark>ed with ice:</mark>				
Identify any con	ntainers received at non-compliant te (Use form FS-0029 if more space					
•	ntation / Sample Condition Rec		-083 "Sample Guide" for	specific holding times and sample containers.		
	les received within analytical holding labels match COC? Record discrepa					
Note: If information on	containers differs from COC, default nes differ <1hr, record details & login Were analytical requests	to COC per COC.				
	or analyses with multiple option for m vs 8260, Metals 6020 vs 200.8)					
	ers (type/mass/volume/preservative) metals analysis by 200.8/6020 in wa					
Volatile Analysis R	equirements (VOC, GRO, LL-Hg	g, etc.)				
	d with a corresponding % solids cont					
	e.g., VOAs, LL-Hg) in cooler with san					
	free of headspace (e.g., bubbles ≤ 6					
	VOAs field extracted with Methanol-			mou impost data sucliti		
Note to Client: Any	y "No", answer above indicates non-		procedures and	may impact data quality.		
Additional notes (if applicable):						



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> <u>Condition</u>
1222617001-A 1222617001-B	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	ОК ОК			

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.

 $\ensuremath{\mathsf{FR}}\xspace$ - 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.