

### **Laboratory Report of Analysis**

To: ADEC-Air & Water Quality

610 University Drive Fairbanks, AK 99709 (907)451-2141

Report Number: 1222681
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: 06/07/2022 3:02:05PM Results via Engage



### **Case Narrative**

SGS Client: ADEC-Air & Water Quality SGS Project: 1222681 Project Name/Site: WHADA Project Contact: Morgan Brown 22-464

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: 06/07/2022 3:02:07PM



#### **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 <a href="mailto:style="color: blue;">http://www.sgs.com/en/Terms-and-Conditions.aspx></a>. 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.

1 Surrogate out of control limits.

Indicates the analyte is found in a blank associated with the sample. В

CCV/CVA/CVB Continuing Calibration Verification CCCV/CVC/CVCA/CVCB Closing Continuing Calibration Verification

Control Limit CL

DF Analytical Dilution Factor

DL Detection Limit (i.e., maximum method detection limit) Ε The analyte result is above the calibrated range.

GT **Greater Than** ΙB 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

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. Note: All DRO/RRO analyses are integrated per SOP.

Print Date: 06/07/2022 3:02:09PM

200 West Potter Drive, Anchorage, AK 99518 SGS North America Inc.

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### **Sample Summary**

<u>Client Sample ID</u> <u>Lab Sample ID</u> <u>Collected</u> <u>Received</u> <u>Matrix</u>

WHADA-SoCr-0.05 1222681001 06/02/2022 06/02/2022 Water (Surface, Eff., Ground)

Method Description

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

Print Date: 06/07/2022 3:02:10PM



# **Detectable Results Summary**

Client Sample ID: WHADA-SoCr-0.05

Lab Sample ID: 1222681001

Microbiology Laboratory

Parameter
E. Coli
Fecal Coliform

Result 33 25 Units MPN/100mL col/100mL

Print Date: 06/07/2022 3:02:11PM

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### Results of WHADA-SoCr-0.05

Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222681001
Lab Project ID: 1222681

Collection Date: 06/02/22 09:20 Received Date: 06/02/22 12:43 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Microbiology Laboratory

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 Fecal Coliform
 25
 1.67
 1.67
 col/100mL 1
 06/02/22 15:43

### **Batch Information**

Analytical Batch: BTF19577 Analytical Method: SM21 9222D

Analyst: M.A

Analytical Date/Time: 06/02/22 15:43 Container ID: 1222681001-A

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 E. Coli
 33
 1
 1
 MPN/100r1
 06/02/22 15:53

### **Batch Information**

Analytical Batch: BTF19586 Analytical Method: SM21 9223B

Analyst: M.A

Analytical Date/Time: 06/02/22 15:53 Container ID: 1222681001-B

Print Date: 06/07/2022 3:02:13PM



Blank ID: MB for HBN 1836918 [BTF/19577]

Blank Lab ID: 1666539

QC for Samples: 1222681001

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 9222D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Fecal Coliform
 1.00U
 1.00
 1.00
 col/100mL

### **Batch Information**

Analytical Batch: BTF19577 Analytical Method: SM21 9222D

Instrument: Analyst: M.A

Analytical Date/Time: 6/2/2022 3:43:00PM

Print Date: 06/07/2022 3:02:14PM



Blank ID: MB for HBN 1836918 [BTF/19577]

Blank Lab ID: 1666541

QC for Samples: 1222681001

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 9222D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Fecal Coliform
 1.00U
 1.00
 1.00
 col/100mL

### **Batch Information**

Analytical Batch: BTF19577 Analytical Method: SM21 9222D

Instrument: Analyst: M.A

Analytical Date/Time: 6/2/2022 5:15:00PM

Print Date: 06/07/2022 3:02:14PM



Blank ID: MB for HBN 1837167 [BTF/19586]

Blank Lab ID: 1666847

QC for Samples: 1222681001

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 9223B

Parameter Results
E. Coli 1U

LOQ/CL DL

Units MPN/100m

### **Batch Information**

Analytical Batch: BTF19586 Analytical Method: SM21 9223B

Instrument: Analyst: M.A

Analytical Date/Time: 6/2/2022 12:21:00PM

Print Date: 06/07/2022 3:02:18PM





# SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

CONTACT: Morgan Brown PHONE #: 907-451-2141  PROJECT WHADA PROJECT NTP 22 464 PERMIT #: C SAMPLE   C TYPE:   D S S S S S S S S S S S S S S S S S S	REMARKS/ LOC ID
Morgan Brown Morga	
Morgan Brown  Mo	
RESERVED FOR LAB SAMPLE IDENTIFICATION MM/DD/YY HH:MM MATRIX CODE S S S S S S S S S S S S S S S S S S S	
NHADA-SOCK-0.05 6/2/22 9:20 Water 2 Grab X X  RELINQUISHED BY: (1)  DATE TIME RECEIVED BY:  SECTION 4 DOD Project? NO DATA DELICATION OF THE PROPERTY OF THE P	
RELINQUISHED BY: (1)  DATE  TIME  RECEIVED BY:  COC ID:  DATA DELI	
RELINQUISHED BY: (1)  DATE TIME RECEIVED BY:  COC ID:  DATA DELI	
	L ERABLE REQUIREMENT
	TIONS
RECEIVED BY:(3)  DATE TIME RECEIVED BY:	CUSTODY SEAL: (CIRCL
RELINQUISHED BY:(4)  DATE TIME RECEIVED FOR LABORATORY BY:  OR AMBIENT [ ] INTAGT  (See attached Sample Receipt Form) (See attached Sample Receipt Form)	

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

# **AIRBILL 9952272**

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

Signed..... Date ..... **Grant Aviation** 

6420 Kulis Dr. Anchorage, AK 99502

Phone: 1 (888) 359-4726 Freephone: 1 (888) 359-4726

Email: res@flygrant.com

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



FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: allie Ismbe 907-550-3217

Sender: ADE

907-741-1026

Flight Departs: Jun 2 22 10:40 AM

Accepted: Thu, Jun 2 22 10:06:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1	7	_	-	\$28.24
				Total Tax:	\$1.76
			Total Pa	yments made:	\$30.00
Received in good condition by:			T	otal Unpaid:	\$0.00

### **CUSTOMER COPY**

# **AIRBILL 9952272**

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

Signed.....

Date .....

**Grant Aviation** 

6420 Kulis Dr. Anchorage, AK 99502

Phone: 1 (888) 359-4726

Freephone: 1 (888) 359-4726 Email: res@flygrant.com

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



### FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: allie ismbe 907-550-3217

Sender: ADE 907-741-1026

Flight Departs: Jun 2 22 10:40 AM

Accepted: Thu, Jun 2 22 10:06:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Standard Freight	1	7	-	-	\$28.24
TAX: Federal Excise Tax			<b>1</b>		\$1.76
			Total Pa	yments made:	\$30.00
			To	otal Unpaid:	\$0.00

### TERMS AND CONDITIONS

Consignemnt Note Text

Date_	itywide Delivery • 440-3351 go Drive • Anchorage, Ala	ska 99502
From	XC	
То	65	
Collect Job #	Prepay	Advance Charges
	PO#	9952772
	Samole	
	27 T	
Shipped Signature		
g actual G		
	Hong you was	I Charge



### **Sample Containers and Preservatives**

Container Id	<u>Preservative</u>	<u>Container</u>	Container Id	<u>Preservative</u>	<u>Container</u>
		<u>Condition</u>			<u>Condition</u>
1222681001-A	Na2S2O3 for Chlorine Redu	ОК			
1222681001-B	Na2S2O3 for Chlorine Redu	OK			

#### **Container Condition Glossary**

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

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

Page 13 of 13



### **Laboratory Report of Analysis**

To: ADEC-Air & Water Quality

610 University Drive Fairbanks, AK 99709 (907)451-2141

Report Number: 1222761

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.

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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@sgs.com

Alexandra Lambe Date
Project Manager

Print Date: 06/28/2022 3:17:10PM Results via Engage



### **Case Narrative**

SGS Client: ADEC-Air & Water Quality SGS Project: 1222761 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

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

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



#### **Laboratory Qualifiers**

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

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

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\* The analyte has exceeded allowable regulatory or control limits.

! Surrogate out of control limits.

B Indicates the analyte is found in a blank associated with the sample.

CCV/CVA/CVB Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB Closing Continuing Calibration Verification

CL Control Limit

DF Analytical Dilution Factor

DL Detection Limit (i.e., maximum method detection limit)
E The analyte result is above the calibrated range.

GT Greater Than
IB Instrument Blank

ICV Initial Calibration Verification
J The quantitation is an estimation.
LCS(D) Laboratory Control Spike (Duplicate)
LLQC/LLIQC Low Level Quantitation Check

LOD Limit of Detection (i.e., 1/2 of the LOQ)

LOQ Limit of Quantitation (i.e., reporting or practical quantitation limit)

LT Less Than MB Method Blank

MS(D) Matrix Spike (Duplicate)

ND Indicates the analyte is not detected.

RPD Relative Percent Difference
TNTC Too Numerous To Count

U Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

All DRO/RRO analyses are integrated per SOP.

Print Date: 06/28/2022 3:17:13PM

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### Sample Summary

Client Sample ID	Lab Sample ID	<u>Collected</u>	Received	<u>Matrix</u>
Cam6	1222761001	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
Che3	1222761002	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
Che33	1222761003	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
AnchBact20-01	1222761004	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
Cam6	1222761005	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
Che3	1222761006	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
Che33	1222761007	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)
AnchBact20-01	1222761008	06/06/2022	06/06/2022	Water (Surface, Eff., Ground)

MethodMethod DescriptionSM 5310BDissolved Organic CarbonSM21 2340BHardness as CaCO3 by ICP-MS

EP200.8 Metals in Drinking Water by ICP-MS DISSO

EP200.8 Metals in Water by 200.8 ICP-MS SM21 4500NO3-F Nitrate/Nitrite Flow injection Pres.

SM23 4500-N D TKN by Phenate (W)
SM21 4500P-B,E Total Phosphorus (W)



# **Detectable Results Summary**

Client Sample ID: Cam6			
Lab Sample ID: 1222761001	<u>Parameter</u>	Result	<u>Units</u>
Metals by ICP/MS	Calcium	18600	ug/L
•	Hardness as CaCO3	57.6	mg/L
	Magnesium	2730	ug/L
Waters Department	TOC Average, Dissolved	1.73	mg/L
	Total Nitrate/Nitrite-N	0.281	mg/L
	Total Phosphorus	0.0679	mg/L
Client Sample ID: Che3			
Lab Sample ID: 1222761002	Parameter	Result	Units
Metals by ICP/MS	Calcium	42300	ug/L
motalo by for Amo	Hardness as CaCO3	138	mg/L
	Magnesium	7780	ug/L
Waters Department	TOC Average, Dissolved	2.38	mg/L
Tratoro Dopartimont	Total Nitrate/Nitrite-N	0.788	mg/L
Client Sample ID: Che33			-
Lab Sample ID: 1222761003	Danamatan.	Daguit	l linita
•	<u>Parameter</u>	Result	<u>Units</u>
Metals by ICP/MS	Calcium	18800	ug/L
	Hardness as CaCO3	59.0	mg/L
w	Magnesium	2900 3.32	ug/L
Waters Department	TOC Average, Dissolved		mg/L
	Total Nitrate/Nitrite-N	0.388	mg/L
Client Sample ID: AnchBact20-01			
Lab Sample ID: 1222761004	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Metals by ICP/MS	Calcium	16500	ug/L
	Hardness as CaCO3	49.5	mg/L
	Magnesium	2000	ug/L
Waters Department	TOC Average, Dissolved	1.50	mg/L
	Total Nitrate/Nitrite-N	0.237	mg/L
Client Sample ID: Cam6			
Lab Sample ID: 1222761005	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	9.79	ug/L
	Calcium	17900	ug/L
	Magnesium	2240	ug/L
	Manganese	1.01	ug/L
	Silicon	2940	ug/L
	Silicon	_0.0	3,
	Sodium	1850	ug/L

Print Date: 06/28/2022 3:17:16PM

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# **Detectable Results Summary**

Client Sample ID: Che3			
Lab Sample ID: 1222761006	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Dissolved Metals by ICP/MS	Barium	19.6	ug/L
	Calcium	41500	ug/L
	Magnesium	7800	ug/L
	Potassium	1010	ug/L
	Silicon	5310	ug/L
	Sodium	10700	ug/L
	Zinc	34.6	ug/L
Client Sample ID: Che33			
Lab Sample ID: 1222761007	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	6.23	ug/L
	Calcium	19100	ug/L
	Magnesium	3020	ug/L
	Silicon	4880	ug/L
	Sodium	1570	ug/L
	Zinc	51.9	ug/L
Client Sample ID: AnchBact20-01			
Lab Sample ID: 1222761008	Parameter	Result	Units
Dissolved Metals by ICP/MS	Barium	8.75	ug/L
Disserved metals by for this	Calcium	16400	ug/L
	Magnesium	1830	ug/L
	Silicon	2900	ug/L
	Sodium	1060	ug/L
	Zinc	31.5	ug/L
	2110	31.3	ug/L



Client Sample ID: **Cam6**Client Project ID: **WHADA**Lab Sample ID: 1222761001
Lab Project ID: 1222761

Collection Date: 06/06/22 12:35 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	18600	500	150	ug/L	1		06/13/22 17:58
Magnesium	2730	50.0	15.0	ug/L	1		06/13/22 17:58

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 17:58 Container ID: 1222761001-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	57.6	5.00	5.00	mg/L	1		06/13/22 17:58

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 17:58 Container ID: 1222761001-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **Cam6**Client Project ID: **WHADA**Lab Sample ID: 1222761001
Lab Project ID: 1222761

Collection Date: 06/06/22 12:35 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

Results by Waters Department

Allowable Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed <u>Parameter</u> **Limits** TOC Average, Dissolved 1.73 1.00 0.400 mg/L 1 06/16/22 23:14

**Batch Information** 

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/16/22 23:14 Container ID: 1222761001-C

<u>Allowable</u> LOQ/CL <u>Units</u> <u>Parameter</u> Result Qual DL <u>DF</u> Date Analyzed Limits Total Nitrate/Nitrite-N 0.281 0.200 0.0500 2 06/15/22 11:45 mg/L

**Batch Information** 

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 11:45 Container ID: 1222761001-E

Allowable Date Analyzed Parameter Result Qual LOQ/CL DL **Units** <u>DF</u> Limits Total Phosphorus 0.0679 0.0400 0.0120 1 06/24/22 17:15 mg/L

**Batch Information** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:15 Container ID: 1222761001-E Prep Batch: WXX14256

Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL Limits **Parameter** Result Qual DL **Units** <u>DF</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 06/16/22 16:23 1



Client Sample ID: **Cam6**Client Project ID: **WHADA**Lab Sample ID: 1222761001
Lab Project ID: 1222761

Collection Date: 06/06/22 12:35 Received Date: 06/06/22 13:05 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 16:23 Container ID: 1222761001-E 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: **Che3**Client Project ID: **WHADA**Lab Sample ID: 1222761002
Lab Project ID: 1222761

Collection Date: 06/06/22 11:42 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	42300	500	150	ug/L	1		06/13/22 18:01
Magnesium	7780	50.0	15.0	ug/L	1		06/13/22 18:01

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:01 Container ID: 1222761002-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	138	5.00	5.00	mg/L	1		06/13/22 18:01

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 18:01 Container ID: 1222761002-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: Che3 Client Project ID: WHADA Lab Sample ID: 1222761002 Lab Project ID: 1222761

Collection Date: 06/06/22 11:42 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

Results by Waters Department

Allowable Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed <u>Parameter</u> **Limits** TOC Average, Dissolved 2.38 1.00 0.400 mg/L 1 06/16/22 23:28

**Batch Information** 

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/16/22 23:28 Container ID: 1222761002-C

<u>Allowable</u> LOQ/CL <u>Units</u> <u>Parameter</u> Result Qual DL <u>DF</u> Date Analyzed Limits Total Nitrate/Nitrite-N 0.788 0.200 0.0500 2 06/15/22 11:47 mg/L

**Batch Information** 

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 11:47 Container ID: 1222761002-E

Allowable LOQ/CL Date Analyzed Parameter Result Qual DL **Units** <u>DF</u> Limits Total Phosphorus 0.0400 U 0.0400 0.0120 1 06/24/22 17:20 mg/L

**Batch Information** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:20 Container ID: 1222761002-E

Prep Batch: WXX14256

Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL Limits **Parameter** Result Qual DL **Units** <u>DF</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 06/16/22 16:24 1



Client Sample ID: **Che3**Client Project ID: **WHADA**Lab Sample ID: 1222761002
Lab Project ID: 1222761

Collection Date: 06/06/22 11:42 Received Date: 06/06/22 13:05 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 16:24 Container ID: 1222761002-E 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: **Che33**Client Project ID: **WHADA**Lab Sample ID: 1222761003
Lab Project ID: 1222761

Collection Date: 06/06/22 10:20 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	18800	500	150	ug/L	1		06/13/22 18:03
Magnesium	2900	50.0	15.0	ug/L	1		06/13/22 18:03

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:03 Container ID: 1222761003-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	59.0	5.00	5.00	mg/L	1		06/13/22 18:03

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 18:03 Container ID: 1222761003-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: Che33 Client Project ID: WHADA Lab Sample ID: 1222761003 Lab Project ID: 1222761

Collection Date: 06/06/22 10:20 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

Results by Waters Department

Allowable Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed <u>Parameter</u> **Limits** TOC Average, Dissolved 3.32 1.00 0.400 mg/L 1 06/16/22 23:41

**Batch Information** 

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/16/22 23:41 Container ID: 1222761003-C

<u>Allowable</u> LOQ/CL <u>Units</u> <u>Parameter</u> Result Qual DL <u>DF</u> Date Analyzed Limits Total Nitrate/Nitrite-N 0.388 0.200 0.0500 2 06/15/22 11:49 mg/L

**Batch Information** 

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 11:49

Container ID: 1222761003-E

Allowable LOQ/CL Date Analyzed Parameter Result Qual DL **Units** <u>DF</u> Limits Total Phosphorus 0.0400 U 0.0400 0.0120 1 06/24/22 17:21 mg/L

**Batch Information** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:21 Container ID: 1222761003-E

Prep Batch: WXX14256

Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL Limits **Parameter** Result Qual DL **Units** <u>DF</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 06/16/22 16:25 1



Client Sample ID: **Che33**Client Project ID: **WHADA**Lab Sample ID: 1222761003
Lab Project ID: 1222761

Collection Date: 06/06/22 10:20 Received Date: 06/06/22 13:05 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 16:25 Container ID: 1222761003-E 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: AnchBact20-01 Client Project ID: WHADA Lab Sample ID: 1222761004 Lab Project ID: 1222761 Collection Date: 06/06/22 11:00 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	16500	500	150	ug/L	1		06/13/22 18:12
Magnesium	2000	50.0	15.0	ug/L	1		06/13/22 18:12

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM Analytical Date/Time: 06/13/22 18:12

Container ID: 1222761004-B

Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	49.5	5.00	5.00	mg/L	1		06/13/22 18:12

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 18:12 Container ID: 1222761004-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: AnchBact20-01 Client Project ID: WHADA Lab Sample ID: 1222761004 Lab Project ID: 1222761 Collection Date: 06/06/22 11:00 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Waters Department

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
TOC Average, Dissolved	1.50	1.00	0.400	mg/L	1		06/17/22 00:32

### **Batch Information**

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/17/22 00:32 Container ID: 1222761004-C

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Nitrate/Nitrite-N	0.237	0.200	0.0500	mg/L	2		06/15/22 12:03

### **Batch Information**

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 12:03 Container ID: 1222761004-E

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Phosphorus	0.0400 U	0.0400	0.0120	mg/L	1		06/24/22 17:21

### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:21 Container ID: 1222761004-E

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL <u>Parameter</u> Result Qual DL <u>Units</u> <u>DF</u> <u>Limits</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 1 06/16/22 16:27



Client Sample ID: AnchBact20-01 Client Project ID: WHADA Lab Sample ID: 1222761004 Lab Project ID: 1222761 Collection Date: 06/06/22 11:00 Received Date: 06/06/22 13:05 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 16:27 Container ID: 1222761004-E 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: **Cam6**Client Project ID: **WHADA**Lab Sample ID: 1222761005
Lab Project ID: 1222761

Collection Date: 06/06/22 12:35 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	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 18:14
Antimony	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:14
Arsenic	5.00 U	5.00	1.50	ug/L	1		06/13/22 18:14
Barium	9.79	3.00	0.940	ug/L	1		06/13/22 18:14
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 18:14
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 18:14
Calcium	17900	500	150	ug/L	1		06/13/22 18:14
Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 18:14
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 18:14
Copper	3.00 U	3.00	1.00	ug/L	1		06/13/22 18:14
Iron	250 U	250	78.0	ug/L	1		06/13/22 18:14
Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 18:14
Magnesium	2240	50.0	15.0	ug/L	1		06/13/22 18:14
Manganese	1.01	1.00	0.350	ug/L	1		06/13/22 18:14
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:14
Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:14
Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 18:14
Potassium	500 U	500	150	ug/L	1		06/13/22 18:14
Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 18:14
Silicon	2940	1000	310	ug/L	1		06/13/22 18:14
Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:14
Sodium	1850	500	150	ug/L	1		06/13/22 18:14
Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:14
Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:14
Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 18:14
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 18:14
Zinc	34.4	10.0	3.10	ug/L	1		06/13/22 18:14
				-			

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:14 Container ID: 1222761005-A Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **Che3**Client Project ID: **WHADA**Lab Sample ID: 1222761006
Lab Project ID: 1222761

Collection Date: 06/06/22 11:42 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable</u> Limits <u>Dat</u>	e Analyzed
Aluminum	20.0 U	20.0	6.20	ug/L	1		13/22 18:17
Antimony	1.00 U	1.00	0.310	ug/L	1		13/22 18:17
Arsenic	5.00 U	5.00	1.50	ug/L	1	06/	13/22 18:17
Barium	19.6	3.00	0.940	ug/L	1		13/22 18:17
Beryllium	0.400 U	0.400	0.130	ug/L	1	06/	13/22 18:17
Cadmium	0.500 U	0.500	0.150	ug/L	1	06/	13/22 18:17
Calcium	41500	500	150	ug/L	1	06/	13/22 18:17
Chromium	5.00 U	5.00	2.50	ug/L	1	06/	13/22 18:17
Cobalt	4.00 U	4.00	1.20	ug/L	1	06/	13/22 18:17
Copper	3.00 U	3.00	1.00	ug/L	1	06/	13/22 18:17
Iron	250 U	250	78.0	ug/L	1	06/	13/22 18:17
Lead	2.00 U	2.00	0.500	ug/L	1	06/	13/22 18:17
Magnesium	7800	50.0	15.0	ug/L	1	06/	13/22 18:17
Manganese	1.00 U	1.00	0.350	ug/L	1	06/	13/22 18:17
Molybdenum	2.00 U	2.00	0.620	ug/L	1	06/	13/22 18:17
Nickel	2.00 U	2.00	0.620	ug/L	1	06/	13/22 18:17
Phosphorus	200 U	200	62.0	ug/L	1	06/	13/22 18:17
Potassium	1010	500	150	ug/L	1	06/	13/22 18:17
Selenium	5.00 U	5.00	1.50	ug/L	1	06/	13/22 18:17
Silicon	5310	1000	310	ug/L	1	06/	13/22 18:17
Silver	1.00 U	1.00	0.310	ug/L	1	06/	13/22 18:17
Sodium	10700	500	150	ug/L	1	06/	13/22 18:17
Thallium	1.00 U	1.00	0.310	ug/L	1	06/	13/22 18:17
Tin	1.00 U	1.00	0.310	ug/L	1	06/	13/22 18:17
Titanium	6.25 U	6.25	3.13	ug/L	1	06/	13/22 18:17
Vanadium	20.0 U	20.0	6.20	ug/L	1	06/	13/22 18:17
Zinc	34.6	10.0	3.10	ug/L	1	06/	13/22 18:17

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:17 Container ID: 1222761006-A Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **Che33**Client Project ID: **WHADA**Lab Sample ID: 1222761007
Lab Project ID: 1222761

Collection Date: 06/06/22 10:20 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

Parameter         Result Qual         LOC/CL         DL         Units         DF         Limits         Date Analyzed           Aluminum         20.0 U         20.0 U         6.20         ug/L         1         06/13/22 18:20           Antimony         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Arsenic         5.00 U         5.00         1.50         ug/L         1         06/13/22 18:20           Barium         6.23         3.00         0.940         ug/L         1         06/13/22 18:20           Beryllium         0.400 U         0.400         0.130         ug/L         1         06/13/22 18:20           Cadmium         0.500 U         0.500         0.150         ug/L         1         06/13/22 18:20           Calcium         19100         500         150         ug/L         1         06/13/22 18:20           Chromium         5.00 U         5.00         2.50         ug/L         1         06/13/22 18:20           Chromium         5.00 U         4.00 U         4.00         1.20         ug/L         1         06/13/22 18:20           Chromium         5.00 U         4.00 U         4.00         1.20							Allowable	
Antimony         1.00 U         1.00 U         0.310 Ug/L         1         06/13/22 18:20           Arsenic         5.00 U         5.00 U         1.50 Ug/L         1         06/13/22 18:20           Barium         6.23 3.00 0.940 Ug/L         1         06/13/22 18:20           Beryllium         0.400 U 0.400 0.130 Ug/L 1         1         06/13/22 18:20           Cadmium         0.500 U 0.500 0.150 Ug/L 1         1         06/13/22 18:20           Calcium         19100 500 150 Ug/L 1         1         06/13/22 18:20           Chromium         5.00 U 5.00 2.50 Ug/L 1         1         06/13/22 18:20           Chromium         5.00 U 4.00 U 1.20 Ug/L 1         1         06/13/22 18:20           Copper         3.00 U 3.00 1.00 Ug/L 1         1         06/13/22 18:20           Iron         250 U 250 78.0 Ug/L 1         1         06/13/22 18:20           Magnesium         3020 50.0 15.0 Ug/L 1         1         06/13/22 18:20           Manganese         1.00 U 1.00 0.350 Ug/L 1         1         06/13/22 18:20           Molybdenum         2.00 U 2.00 0.620 Ug/L 1         1         06/13/22 18:20           Phosphorus         200 U 2.00 0.620 Ug/L 1         1         06/13/22 18:20           Selenium         5.00 U 5.00 15	<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Arsenic         5.00 U         5.00 U         1.50 Ug/L         1 06/13/22 18:20           Barium         6.23         3.00 0.940 Ug/L         1 06/13/22 18:20           Beryllium         0.400 U         0.400 U         0.130 Ug/L         1 06/13/22 18:20           Cadmium         0.500 U         0.500 U         0.150 Ug/L         1 06/13/22 18:20           Calcium         19100 500 U         5.00 U         2.50 Ug/L         1 06/13/22 18:20           Chromium         5.00 U         5.00 U         2.50 Ug/L         1 06/13/22 18:20           Cobalt         4.00 U         4.00 U         1.20 Ug/L         1 06/13/22 18:20           Copper         3.00 U         3.00 U         1.00 Ug/L         1 06/13/22 18:20           Iron         250 U         250 U         250 Ug/L         1 06/13/22 18:20           Lead         2.00 U         2.00 U         0.500 Ug/L         1 06/13/22 18:20           Magnesium         3020 Solo         50.0 Us/L         1 06/13/22 18:20           Molydenum         2.00 U         2.00 Us/L         1 06/13/22 18:20           Phosphorus         200 U         2.00 U         0.620 Ug/L         1 06/13/22 18:20           Potassium         500 U         5.00 U         1.50 Ug/L					-			
Barium         6.23         3.00         0.940         ug/L         1         06/13/22 18:20           Beryllium         0.400 U         0.400         0.130         ug/L         1         06/13/22 18:20           Cadmium         0.500 U         0.500         0.150         ug/L         1         06/13/22 18:20           Calcium         19100         500         150         ug/L         1         06/13/22 18:20           Chromium         5.00 U         5.00         2.50         ug/L         1         06/13/22 18:20           Cobalt         4.00 U         4.00         1.20         ug/L         1         06/13/22 18:20           Copper         3.00 U         3.00 U         3.00         1.00         ug/L         1         06/13/22 18:20           Lead         2.00 U         2.50         78.0         ug/L         1         06/13/22 18:20           Magnesium         3020         50.0         15.0         ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Phosphorus         2.00 U         2.00         6.20         ug/L         1         06/13/22	Antimony				ug/L	1		
Beryllium         0.400 U         0.400 U         0.130 Ug/L         1         06/13/22 18:20           Cadmium         0.500 U         0.500 U         0.150 Ug/L         1         06/13/22 18:20           Calcium         19100         500 U         150 Ug/L         1         06/13/22 18:20           Chromium         5.00 U         5.00 U         2.50 Ug/L         1         06/13/22 18:20           Cobalt         4.00 U         4.00 U         1.20 Ug/L         1         06/13/22 18:20           Copper         3.00 U         3.00 U         1.00 Ug/L         1         06/13/22 18:20           Iron         250 U         250 U         250 T8.0 Ug/L         1         06/13/22 18:20           Iron         250 U         250 V         250 T8.0 Ug/L         1         06/13/22 18:20           Magnesium         3020 U         2.00 U         0.500 Ug/L         1         06/13/22 18:20           Manganese         1.00 U         1.00 U         0.350 Ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00 U         0.620 Ug/L         1         06/13/22 18:20           Phosphorus         200 U         2.00 U         0.620 Ug/L         1         06/13/22 18:20					ug/L	1		
Cadmium         0.500 U         0.500 D         0.150 Ug/L         1         06/13/22 18:20           Calcium         19100         500 D         150 Ug/L         1         06/13/22 18:20           Chromium         5.00 U         5.00 D         2.50 Ug/L         1         06/13/22 18:20           Cobalt         4.00 U         4.00 U         1.20 Ug/L         1         06/13/22 18:20           Copper         3.00 U         3.00 U         1.00 Ug/L         1         06/13/22 18:20           Iron         250 U         250 U         78.0 Ug/L         1         06/13/22 18:20           Lead         2.00 U         2.00 U         0.500 Ug/L         1         06/13/22 18:20           Magnesium         3020 D         50.0 U         15.0 Ug/L         1         06/13/22 18:20           Malgoresium         3020 D         50.0 U         15.0 Ug/L         1         06/13/22 18:20           Malgoresium         3020 U         2.00 U         0.350 Ug/L         1         06/13/22 18:20           Malgoresium         2.00 U         2.00 U         0.620 Ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00 U         0.620 Ug/L         1         06/13/22 18:20			3.00	0.940	ug/L	1		
Calcium         19100         500         150         ug/L         1         06/13/22 18:20           Chromium         5.00 U         5.00         2.50         ug/L         1         06/13/22 18:20           Cobalt         4.00 U         4.00         1.20         ug/L         1         06/13/22 18:20           Copper         3.00 U         3.00         1.00         ug/L         1         06/13/22 18:20           Iron         250 U         250         78.0         ug/L         1         06/13/22 18:20           Lead         2.00 U         2.00         0.500         ug/L         1         06/13/22 18:20           Magnesium         3020         50.0         15.0         ug/L         1         06/13/22 18:20           Magnese         1.00 U         1.00         0.350         ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Phosphorus         200 U         2.00         0.620         ug/L         1         06/13/22 18:20	Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 18:20
Chromium         5.00 U         5.00 U         2.50 U         ug/L U         1         06/13/22 18:20           Cobalt         4.00 U         4.00 U         1.20 Ug/L U         1         06/13/22 18:20           Copper         3.00 U         3.00 U         1.00 Ug/L U         1         06/13/22 18:20           Iron         250 U         250 T8.0 Ug/L U         1         06/13/22 18:20           Lead         2.00 U 2.00 U         0.500 Ug/L U         1         06/13/22 18:20           Magnesium         3020 S50.0 I5.0 Ug/L U         1         06/13/22 18:20           Manganese         1.00 U 1.00 U         0.350 Ug/L U         1         06/13/22 18:20           Molybdenum         2.00 U 2.00 U         0.620 Ug/L U         1         06/13/22 18:20           Nickel         2.00 U 2.00 U         0.620 Ug/L U         1         06/13/22 18:20           Phosphorus         200 U 200 G2.0 Ug/L U         1         06/13/22 18:20           Potassium         500 U 500 U         150 Ug/L U         1         06/13/22 18:20           Selenium         5.00 U 5.00 U         1.50 Ug/L U         1         06/13/22 18:20           Silver         1.00 U 1.00 U 1.00 U         0.310 Ug/L U         1         06/13/22 18:20	Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 18:20
Cobalt         4.00 U         4.00 U         3.00 U         1.20 Ug/L         1         06/13/22 18:20           Copper         3.00 U         3.00 U         1.00 Ug/L         1         06/13/22 18:20           Iron         250 U         250 U         250 U         0.500 Ug/L         1         06/13/22 18:20           Lead         2.00 U         2.00 U         0.500 Ug/L         1         06/13/22 18:20           Magnesium         3020 So.0         15.0 Ug/L         1         06/13/22 18:20           Manganese         1.00 U 1.00 0.350 Ug/L         1         06/13/22 18:20           Molybdenum         2.00 U 2.00 0.620 Ug/L         1         06/13/22 18:20           Nickel         2.00 U 2.00 0.620 Ug/L         1         06/13/22 18:20           Phosphorus         200 U 200 62.0 Ug/L         1         06/13/22 18:20           Potassium         500 U 500 150 Ug/L         1         06/13/22 18:20           Selenium         5.00 U 5.00 150 Ug/L         1         06/13/22 18:20           Silicon         4880 1000 310 Ug/L         1         06/13/22 18:20           Silver         1.00 U 1.00 0.310 Ug/L         1         06/13/22 18:20           Sodium         1570 500 150 Ug/L         1 <td< td=""><td>Calcium</td><td>19100</td><td>500</td><td>150</td><td>ug/L</td><td>1</td><td></td><td>06/13/22 18:20</td></td<>	Calcium	19100	500	150	ug/L	1		06/13/22 18:20
Copper         3.00 U         3.00 U         1.00 ug/L         1         06/13/22 18:20           Iron         250 U         250 T8.0 ug/L         1         06/13/22 18:20           Lead         2.00 U         2.00 0 0.500 ug/L         1         06/13/22 18:20           Magnesium         3020 50.0 15.0 ug/L         1         06/13/22 18:20           Manganese         1.00 U 1.00 0.350 ug/L         1         06/13/22 18:20           Molybdenum         2.00 U 2.00 0.620 ug/L         1         06/13/22 18:20           Nickel         2.00 U 2.00 0.620 ug/L         1         06/13/22 18:20           Phosphorus         200 U 200 62.0 ug/L         1         06/13/22 18:20           Potassium         500 U 500 150 ug/L         1         06/13/22 18:20           Selenium         5.00 U 5.00 1.50 ug/L         1         06/13/22 18:20           Silicon         4880 1000 310 ug/L         1         06/13/22 18:20           Siliver         1.00 U 1.00 0.310 ug/L         1         06/13/22 18:20           Sodium         1570 500 150 ug/L         1         06/13/22 18:20           Thallium         1.00 U 1.00 0.310 ug/L         1         06/13/22 18:20           Titanium         6.25 U 6.25 3.13 ug/L         1	Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 18:20
Iron         250 U         250 U         250 U         78.0 Ug/L         1         06/13/22 18:20           Lead         2.00 U         2.00 U         0.500 Ug/L         1         06/13/22 18:20           Magnesium         3020         50.0 15.0 Ug/L         1         06/13/22 18:20           Manganese         1.00 U         1.00 0.350 Ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00 0.620 Ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00 0.620 Ug/L         1         06/13/22 18:20           Phosphorus         200 U         200 0.62.0 Ug/L         1         06/13/22 18:20           Potassium         500 U         500 150 Ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00 150 Ug/L         1         06/13/22 18:20           Silicon         4880 1000 310 Ug/L         1         06/13/22 18:20           Silver         1.00 U 1.00 0.310 Ug/L         1         06/13/22 18:20           Sodium         1570 500 150 Ug/L         1         06/13/22 18:20           Thallium         1.00 U 1.00 0.310 Ug/L         1         06/13/22 18:20           Titanium         6.25 U 6.25 3.13 Ug/L         1	Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 18:20
Lead         2.00 U         2.00         0.500         ug/L         1         06/13/22 18:20           Magnesium         3020         50.0         15.0         ug/L         1         06/13/22 18:20           Manganese         1.00 U         1.00         0.350         ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Phosphorus         200 U         200         62.0         ug/L         1         06/13/22 18:20           Potassium         500 U         500         150         ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00         1.50         ug/L         1         06/13/22 18:20           Silicon         4880         1000         310         ug/L         1         06/13/22 18:20           Siliver         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Sodium         1570         500         150         ug/L         1         06/13/22 18:20	Copper	3.00 U	3.00	1.00	ug/L	1		06/13/22 18:20
Magnesium         3020         50.0         15.0         ug/L         1         06/13/22 18:20           Manganese         1.00 U         1.00         0.350         ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00         0.620         ug/L         1         06/13/22 18:20           Phosphorus         200 U         200         62.0         ug/L         1         06/13/22 18:20           Potassium         500 U         500         150         ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00         1.50         ug/L         1         06/13/22 18:20           Silicon         4880         1000         310         ug/L         1         06/13/22 18:20           Silver         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Sodium         1570         500         150         ug/L         1         06/13/22 18:20           Tiallium         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20 <tr< td=""><td>Iron</td><td>250 U</td><td>250</td><td>78.0</td><td>ug/L</td><td>1</td><td></td><td>06/13/22 18:20</td></tr<>	Iron	250 U	250	78.0	ug/L	1		06/13/22 18:20
Manganese         1.00 U         1.00 U         0.350 Ug/L         1         06/13/22 18:20           Molybdenum         2.00 U         2.00 O         0.620 Ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00 O         0.620 Ug/L         1         06/13/22 18:20           Phosphorus         200 U         200 G2.0 Ug/L         1         06/13/22 18:20           Potassium         500 U         500 I50 Ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00 I1.50 Ug/L         1         06/13/22 18:20           Silicon         4880 I000 310 Ug/L         1         06/13/22 18:20           Siliver         1.00 U I.00 O.310 Ug/L         1         06/13/22 18:20           Sodium         1570 500 I50 Ug/L         1         06/13/22 18:20           Thallium         1.00 U I.00 O.310 Ug/L         1         06/13/22 18:20           Titanium         6.25 U 6.25 3.13 Ug/L         1         06/13/22 18:20           Vanadium         20.0 U 20.0 6.20 Ug/L         1         06/13/22 18:20	Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 18:20
Molybdenum         2.00 U         2.00 U         0.620 ug/L         1         06/13/22 18:20           Nickel         2.00 U         2.00 0         0.620 ug/L         1         06/13/22 18:20           Phosphorus         200 U         200 62.0 ug/L         1         06/13/22 18:20           Potassium         500 U         500 150 ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00 U         1.50 ug/L         1         06/13/22 18:20           Silicon         4880 1000 310 ug/L         1         06/13/22 18:20           Siliver         1.00 U 1.00 0.310 ug/L         1         06/13/22 18:20           Sodium         1570 500 150 ug/L         1         06/13/22 18:20           Thallium         1.00 U 1.00 0.310 ug/L         1         06/13/22 18:20           Titanium         6.25 U 6.25 3.13 ug/L         1         06/13/22 18:20           Vanadium         20.0 U 20.0 6.20 ug/L         1         06/13/22 18:20	Magnesium	3020	50.0	15.0	ug/L	1		06/13/22 18:20
Nickel         2.00 U         2.00 U         2.00 O         0.620 O         ug/L         1         06/13/22 18:20 O           Phosphorus         200 U         200 O         62.0 O         ug/L         1         06/13/22 18:20 O           Potassium         500 U         500 U         150 U         ug/L         1         06/13/22 18:20 O           Selenium         5.00 U         5.00 U         1.50 U         ug/L         1         06/13/22 18:20 O           Silicon         4880 I         1000 I         310 U         ug/L         1         06/13/22 18:20 O           Siliver         1.00 U         1.00 I         0.310 U         ug/L         1         06/13/22 18:20 O           Sodium         1570 I         500 I         150 U         ug/L         1         06/13/22 18:20 O           Thallium         1.00 U         1.00 U         0.310 U         ug/L         1         06/13/22 18:20 O           Titanium         6.25 U         6.25 U         3.13 U         ug/L         1         06/13/22 18:20 O           Vanadium         20.0 U         20.0 G         6.20 U         ug/L         1         06/13/22 18:20 O	Manganese	1.00 U	1.00	0.350	ug/L	1		06/13/22 18:20
Phosphorus         200 U         200         62.0         ug/L         1         06/13/22 18:20           Potassium         500 U         500         150         ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00         1.50         ug/L         1         06/13/22 18:20           Silicon         4880         1000         310         ug/L         1         06/13/22 18:20           Silver         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Sodium         1570         500         150         ug/L         1         06/13/22 18:20           Thallium         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Tin         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Titanium         6.25 U         6.25         3.13         ug/L         1         06/13/22 18:20           Vanadium         20.0 U         20.0 U         6.20         ug/L         1         06/13/22 18:20	Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:20
Potassium         500 U         500 U         500 U         150 Ug/L         1         06/13/22 18:20           Selenium         5.00 U         5.00 U         1.50 Ug/L         1         06/13/22 18:20           Silicon         4880 U000 310 Ug/L         1         06/13/22 18:20           Silver         1.00 U 1.00 U1.00 Ug/L         1         06/13/22 18:20           Sodium         1570 S00 Ug/L         1         06/13/22 18:20           Thallium         1.00 U 1.00 U1.00 Ug/L         1         06/13/22 18:20           Tin         1.00 U 1.00 U1.00 U1.00 Ug/L         1         06/13/22 18:20           Titanium         6.25 U 6.25 3.13 Ug/L         1         06/13/22 18:20           Vanadium         20.0 U 20.0 6.20 Ug/L         1         06/13/22 18:20	Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:20
Selenium         5.00 U         5.00 U         1.50 Ug/L         1         06/13/22 18:20           Silicon         4880         1000         310 Ug/L         1         06/13/22 18:20           Silver         1.00 U         1.00 U         0.310 Ug/L         1         06/13/22 18:20           Sodium         1570         500 I50 Ug/L         1         06/13/22 18:20           Thallium         1.00 U         1.00 U         0.310 Ug/L         1         06/13/22 18:20           Tin         1.00 U         1.00 U         0.310 Ug/L         1         06/13/22 18:20           Titanium         6.25 U         6.25 U         3.13 Ug/L         1         06/13/22 18:20           Vanadium         20.0 U         20.0 U         6.20 Ug/L         1         06/13/22 18:20	Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 18:20
Silicon       4880       1000       310       ug/L       1       06/13/22 18:20         Silver       1.00 U       1.00       0.310       ug/L       1       06/13/22 18:20         Sodium       1570       500       150       ug/L       1       06/13/22 18:20         Thallium       1.00 U       1.00       0.310       ug/L       1       06/13/22 18:20         Tin       1.00 U       1.00       0.310       ug/L       1       06/13/22 18:20         Titanium       6.25 U       6.25       3.13       ug/L       1       06/13/22 18:20         Vanadium       20.0 U       20.0       6.20       ug/L       1       06/13/22 18:20	Potassium	500 U	500	150	ug/L	1		06/13/22 18:20
Silver       1.00 U       1.00 U       0.310 Ug/L       1       06/13/22 18:20         Sodium       1570       500       150 Ug/L       1       06/13/22 18:20         Thallium       1.00 U       1.00 U       0.310 Ug/L       1       06/13/22 18:20         Tin       1.00 U       1.00 U       0.310 Ug/L       1       06/13/22 18:20         Titanium       6.25 U       6.25 U       3.13 Ug/L       1       06/13/22 18:20         Vanadium       20.0 U       20.0 U       6.20 Ug/L       1       06/13/22 18:20	Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 18:20
Sodium         1570         500         150         ug/L         1         06/13/22 18:20           Thallium         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Tin         1.00 U         1.00         0.310         ug/L         1         06/13/22 18:20           Titanium         6.25 U         6.25         3.13         ug/L         1         06/13/22 18:20           Vanadium         20.0 U         20.0         6.20         ug/L         1         06/13/22 18:20	Silicon	4880	1000	310	ug/L	1		06/13/22 18:20
Thallium         1.00 U         1.00 U         0.310 ug/L         1         06/13/22 18:20           Tin         1.00 U         1.00 U         0.310 ug/L         1         06/13/22 18:20           Titanium         6.25 U         6.25 U         3.13 ug/L         1         06/13/22 18:20           Vanadium         20.0 U         20.0 U         6.20 ug/L         1         06/13/22 18:20	Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:20
Tin       1.00 U       1.00       0.310       ug/L       1       06/13/22 18:20         Titanium       6.25 U       6.25       3.13       ug/L       1       06/13/22 18:20         Vanadium       20.0 U       20.0       6.20       ug/L       1       06/13/22 18:20	Sodium	1570	500	150	ug/L	1		06/13/22 18:20
Titanium       6.25 U       6.25 U       3.13 ug/L       1       06/13/22 18:20         Vanadium       20.0 U       20.0 6.20 ug/L       1       06/13/22 18:20	Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:20
Vanadium 20.0 U 20.0 6.20 ug/L 1 06/13/22 18:20	Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:20
<b>G</b>	Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 18:20
Zinc 51.9 10.0 3.10 ug/L 1 06/13/22 18:20	Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 18:20
	Zinc	51.9	10.0	3.10	ug/L	1		06/13/22 18:20

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:20 Container ID: 1222761007-A

Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: AnchBact20-01 Client Project ID: WHADA Lab Sample ID: 1222761008 Lab Project ID: 1222761 Collection Date: 06/06/22 11:00 Received Date: 06/06/22 13:05 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>		ate Analyzed
Aluminum	20.0 U	20.0	6.20	ug/L	1		6/13/22 18:22
Antimony	1.00 U	1.00	0.310	ug/L	1		6/13/22 18:22
Arsenic	5.00 U	5.00	1.50	ug/L	1		6/13/22 18:22
Barium	8.75	3.00	0.940	ug/L	1		6/13/22 18:22
Beryllium	0.400 U	0.400	0.130	ug/L	1	0	6/13/22 18:22
Cadmium	0.500 U	0.500	0.150	ug/L	1		6/13/22 18:22
Calcium	16400	500	150	ug/L	1	0	6/13/22 18:22
Chromium	5.00 U	5.00	2.50	ug/L	1	0	6/13/22 18:22
Cobalt	4.00 U	4.00	1.20	ug/L	1	0	6/13/22 18:22
Copper	3.00 U	3.00	1.00	ug/L	1	0	6/13/22 18:22
Iron	250 U	250	78.0	ug/L	1	0	6/13/22 18:22
Lead	2.00 U	2.00	0.500	ug/L	1	0	6/13/22 18:22
Magnesium	1830	50.0	15.0	ug/L	1	0	6/13/22 18:22
Manganese	1.00 U	1.00	0.350	ug/L	1	0	6/13/22 18:22
Molybdenum	2.00 U	2.00	0.620	ug/L	1	0	6/13/22 18:22
Nickel	2.00 U	2.00	0.620	ug/L	1	0	6/13/22 18:22
Phosphorus	200 U	200	62.0	ug/L	1	0	6/13/22 18:22
Potassium	500 U	500	150	ug/L	1	0	6/13/22 18:22
Selenium	5.00 U	5.00	1.50	ug/L	1	0	6/13/22 18:22
Silicon	2900	1000	310	ug/L	1	0	6/13/22 18:22
Silver	1.00 U	1.00	0.310	ug/L	1	0	6/13/22 18:22
Sodium	1060	500	150	ug/L	1	0	6/13/22 18:22
Thallium	1.00 U	1.00	0.310	ug/L	1	0	6/13/22 18:22
Tin	1.00 U	1.00	0.310	ug/L	1	0	6/13/22 18:22
Titanium	6.25 U	6.25	3.13	ug/L	1	0	6/13/22 18:22
Vanadium	20.0 U	20.0	6.20	ug/L	1	0	6/13/22 18:22
Zinc	31.5	10.0	3.10	ug/L	1	0	6/13/22 18:22

### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:22 Container ID: 1222761008-A Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Blank ID: MB for HBN 1837763 [MXX/35159]

Blank Lab ID: 1667664

QC for Samples:

1222761001, 1222761002, 1222761003, 1222761004, 1222761005, 1222761006, 1222761007, 1222761008

### Results by EP200.8

<u>Parameter</u>	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	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: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:39:36PM

Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 6/13/2022 12:27:49PM

Matrix: Water (Surface, Eff., Ground)

Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222761 [MXX35159]

Blank Spike Lab ID: 1667665 Date Analyzed: 06/13/2022 17:42

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004, 1222761005, 1222761006, 1222761007,

1222761008

#### Results by EP200.8

	Blank Spike (ug/L)								
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>CL</u>					
Aluminum	1000	990	99	(85-115)					
Antimony	1000	1040	104	(85-115)					
Arsenic	1000	987	99	(85-115)					
Barium	1000	1000	100	(85-115)					
Beryllium	100	97.6	98	(85-115)					
Cadmium	100	101	101	(85-115)					
Calcium	10000	10400	104	(85-115)					
Chromium	400	413	103	(85-115)					
Cobalt	500	515	103	(85-115)					
Copper	1000	1030	103	(85-115)					
Iron	5000	5130	103	(85-115)					
Lead	1000	1070	107	(85-115)					
Magnesium	10000	9930	99	(85-115)					
Manganese	500	517	103	(85-115)					
Molybdenum	400	386	97	(85-115)					
Nickel	1000	1030	103	(85-115)					
Phosphorus	500	512	102	(85-115)					
Potassium	10000	10300	103	(85-115)					
Selenium	1000	999	100	(85-115)					
Silicon	10000	10100	101	(85-115)					
Silver	100	102	102	(85-115)					
Sodium	10000	9800	98	(85-115)					
Thallium	10	10.3	103	(85-115)					
Tin	100	101	101	(85-115)					
Titanium	100	102	102	(85-115)					
Vanadium	200	210	105	(85-115)					
Zinc	1000	1020	102	(85-115)					

#### **Batch Information**

Analytical Batch: MMS11579
Analytical Method: EP200.8

Instrument: P7 Agilent 7800

Analyst: DMM

Prep Batch: MXX35159
Prep Method: E200.2

Prep Date/Time: 06/13/2022 12:27

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/28/2022 3:17:22PM

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#### **Matrix Spike Summary**

 Original Sample ID: 1667670
 Analysis Date: 06/13/2022 17:47

 MS Sample ID: 1667671 MS
 Analysis Date: 06/13/2022 17:50

MSD Sample ID:

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004, 1222761005, 1222761006, 1222761007,

1222761008

#### Results by EP200.8

		Ma	trix Spike (	ug/L)	Spike	e Duplicate	e (ug/L)			
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	8.67J	1000	997	99				70-130		
Antimony	0.500U	1000	1040	104				70-130		
Arsenic	2.50U	1000	995	100				70-130		
Barium	10.1	1000	1000	99				70-130		
Beryllium	0.200U	100	99.6	100				70-130		
Cadmium	0.250U	100	101	101				70-130		
Calcium	31800	10000	42000	103				70-130		
Chromium	2.50U	400	396	99				70-130		
Cobalt	2.00U	500	507	101				70-130		
Copper	1.16J	1000	1020	102				70-130		
Iron	107J	5000	5220	102				70-130		
Lead	1.00U	1000	1040	104				70-130		
Magnesium	4490	10000	14400	99				70-130		
Manganese	0.899J	500	512	102				70-130		
Molybdenum	0.895J	400	388	97				70-130		
Nickel	1.00U	1000	1010	101				70-130		
Phosphorus	100U	500	513	103				70-130		
Potassium	872	10000	11100	102				70-130		
Selenium	2.50U	1000	1020	102				70-130		
Silicon	5260	10000	15200	99				70-130		
Silver	0.500U	100	99.7	100				70-130		
Sodium	4220	10000	14100	99				70-130		
Thallium	0.500U	10.0	9.99	100				70-130		
Tin	0.500U	100	101	101				70-130		
Titanium	12.5U	100	103	103				70-130		
Vanadium	10.0U	200	197	98				70-130		
Zinc	55.2	1000	1070	102				70-130		

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:50:23PM

Prep Batch: MXX35159

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/13/2022 12:27:49PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL

Print Date: 06/28/2022 3:17:23PM



#### **Matrix Spike Summary**

 Original Sample ID: 1667672
 Analysis Date: 06/13/2022 17:53

 MS Sample ID: 1667673 MS
 Analysis Date: 06/13/2022 17:55

MSD Sample ID:

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004, 1222761005, 1222761006, 1222761007,

1222761008

#### Results by EP200.8

results by El 2000		Ma	trix Spike (	(ug/L)	Spik	e Duplicat	e (ug/L)			
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	10.0U	1000	1000	100				70-130		
Antimony	0.420J	1000	1040	104				70-130		
Arsenic	2.50U	1000	991	99				70-130		
Barium	12.5	1000	998	99				70-130		
Beryllium	0.200U	100	99.4	99				70-130		
Cadmium	0.250U	100	101	101				70-130		
Calcium	41800	10000	51800	99				70-130		
Chromium	2.50U	400	398	99				70-130		
Cobalt	2.00U	500	503	101				70-130		
Copper	21.5	1000	1030	101				70-130		
Iron	168J	5000	5210	101				70-130		
Lead	1.00U	1000	1050	105				70-130		
Magnesium	7360	10000	17300	100				70-130		
Manganese	16.4	500	521	101				70-130		
Molybdenum	4.89	400	398	98				70-130		
Nickel	1.11J	1000	1000	100				70-130		
Phosphorus	100U	500	515	103				70-130		
Potassium	672	10000	11000	103				70-130		
Selenium	2.50U	1000	1020	102				70-130		
Silicon	4830	10000	14900	101				70-130		
Silver	0.500U	100	101	101				70-130		
Sodium	4000	10000	13900	99				70-130		
Thallium	0.500U	10.0	10	100				70-130		
Tin	0.410J	100	102	101				70-130		
Titanium	12.5U	100	102	102				70-130		
Vanadium	10.0U	200	199	99				70-130		
Zinc	82.7	1000	1100	101				70-130		

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:55:45PM

Prep Batch: MXX35159

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/13/2022 12:27:49PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL

Print Date: 06/28/2022 3:17:23PM



#### Method Blank

Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668185

QC for Samples:

1222761001, 1222761002, 1222761003, 1222761004

Matrix: Water (Surface, Eff., Ground)

#### Results by SM21 4500NO3-F

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

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:29:31PM

Print Date: 06/28/2022 3:17:28PM



#### Method Blank

Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668194

QC for Samples:

1222761001, 1222761002, 1222761003, 1222761004

Matrix: Water (Surface, Eff., Ground)

#### Results by SM21 4500NO3-F

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

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:33:30AM

Print Date: 06/28/2022 3:17:28PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222761 [WFI2992]

Blank Spike Lab ID: 1668187 Date Analyzed: 06/15/2022 12:27

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM21 4500NO3-F

Blank Spike (mg/L)									
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>CL</u>					
Nitrate-N	2.5	2.42	97	(70-130)					
Nitrite-N	2.5	2.50	100	(90-110)					
Total Nitrate/Nitrite-N	5	4.92	98	(90-110)					

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Print Date: 06/28/2022 3:17:30PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222761 [WFI2992]

Blank Spike Lab ID: 1668196 Date Analyzed: 06/15/2022 11:31

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM21 4500NO3-F

Blank Spike (mg/L)									
<u>Parameter</u>	Spike	Result	Rec (%)	<u>CL</u>					
Nitrate-N	2.5	2.29	91	(70-130)					
Nitrite-N	2.5	2.26	90	(90-110)					
Total Nitrate/Nitrite-N	5	4.54	91	(90-110)					

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Print Date: 06/28/2022 3:17:30PM



#### **Matrix Spike Summary**

Original Sample ID: 1668169 MS Sample ID: 1668173 MS MSD Sample ID: 1668174 MSD Analysis Date: 06/15/2022 11:38 Analysis Date: 06/15/2022 11:40 Analysis Date: 06/15/2022 11:42

Matrix: Drinking Water

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM21 4500NO3-F

		Mat	Matrix Spike (mg/L)			e Duplicate	e (mg/L)			
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	4.15	2.50	7.07	117	2.50	6.72	103	70-130	5.10	(< 25)
Nitrite-N	0.0522J	2.50	2.4	94	2.50	2.39	93	90-110	0.50	(< 25)

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:40:30AM

Print Date: 06/28/2022 3:17:32PM



#### **Matrix Spike Summary**

 Original Sample ID: 1222827001
 Analysis Date: 06/15/2022 12:33

 MS Sample ID: 1668209 MS
 Analysis Date: 06/15/2022 12:34

 MSD Sample ID: 1668210 MSD
 Analysis Date: 06/15/2022 12:36

Matrix: Drinking Water

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM21 4500NO3-F

Matrix Spike (mg/L) Spike Duplicate (mg/L)

Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD CL

 Parameter
 Sample
 Spike
 Result
 Rec (%)
 Spike
 Result
 Rec (%)
 CL
 RPD (%)
 RPD CL

 Total Nitrate/Nitrite-N
 0.200U
 5.00
 5.33
 107
 5.00
 5.19
 104
 90-110
 2.70
 (< 25 )</td>

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:34:00PM

Print Date: 06/28/2022 3:17:32PM



#### **Method Blank**

Blank ID: MB for HBN 1837996 [WXX/14242]

Blank Lab ID: 1668425

QC for Samples:

1222761001, 1222761002, 1222761003, 1222761004

Matrix: Water (Surface, Eff., Ground)

#### Results by SM23 4500-N D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Kjeldahl Nitrogen
 0.500U
 1.00
 0.310
 mg/L

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D

Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/16/2022 3:59:46PM

Prep Batch: WXX14242 Prep Method: METHOD

Prep Date/Time: 6/14/2022 1:50:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Print Date: 06/28/2022 3:17:36PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222761 [WXX14242]

Blank Spike Lab ID: 1668426 Date Analyzed: 06/16/2022 16:01 [WXX14242]

Spike Duplicate Lab ID: 1668427

Matrix: Water (Surface, Eff., Ground)

Spike Duplicate ID: LCSD for HBN 1222761

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM23 4500-N D

Blank Spike (mg/L) Spike Duplicate (mg/L) <u>Parameter</u> Rec (%) Spike Result Rec (%) <u>Spike</u> RPD (%) RPD CL Result Total Kjeldahl Nitrogen 3.64 4 3.96 (< 25)4 91 99 (75-125)8.40

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14242 Prep Method: METHOD

Prep Date/Time: 06/14/2022 13:50

Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 06/28/2022 3:17:38PM



#### **Matrix Spike Summary**

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

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

#### Results by SM23 4500-N D

Matrix Spike (mg/L) Spike Duplicate (mg/L)

Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD CL

 Parameter
 Sample
 Spike
 Result
 Rec (%)
 Spike
 Result
 Rec (%)
 CL
 RPD (%)
 RPD CL

 Total Kjeldahl Nitrogen
 0.500U
 4.00
 4.14
 104
 4.00
 4.28
 107
 75-125
 3.20
 (< 25 )</td>

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/16/2022 4:05:01PM

Prep Batch: WXX14242

Prep Method: Distillation TKN by Phenate (W) Prep Date/Time: 6/14/2022 1:50:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL

Print Date: 06/28/2022 3:17:40PM



#### **Method Blank**

Blank ID: MB for HBN 1838894 [WXX/14256]

Blank Lab ID: 1670166

QC for Samples:

1222761001, 1222761002, 1222761003, 1222761004

Matrix: Water (Surface, Eff., Ground)

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

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Phosphorus
 0.0200U
 0.0400
 0.0120
 mg/L

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 4:56:58PM

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Print Date: 06/28/2022 3:17:41PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222761 [WXX14256]

Blank Spike Lab ID: 1670167 Date Analyzed: 06/24/2022 16:57 Spike Duplicate ID: LCSD for HBN 1222761

[WXX14256]

Spike Duplicate Lab ID: 1670168

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

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

Blank Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> Spike Result Rec (%) Spike Rec (%) RPD (%) RPD CL Result **Total Phosphorus** 0.205 0.2 0.204 102 (< 25)0.2 102 (75-125)0.44

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/2022 15:09

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: 06/28/2022 3:17:43PM



#### **Matrix Spike Summary**

Original Sample ID: 1222761001
MS Sample ID: 1670175 MS
MSD Sample ID: 1670176 MSD

Analysis Date: 06/24/2022 17:15 Analysis Date: 06/24/2022 17:16 Analysis Date: 06/24/2022 17:17 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222761001, 1222761002, 1222761003, 1222761004

<u>Sample</u>

0.0679

0.200

.272

102

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

Matrix Spike (mg/L) Spike Duplicate (mg/L)

Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD CL

104

75-125

1.30

(< 25)

0.276

Batch Information

<u>Parameter</u>

**Total Phosphorus** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 5:16:32PM

Prep Batch: WXX14256

0.200

Prep Method: Total Phosphorus (W) Ext. Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL

Print Date: 06/28/2022 3:17:44PM





### SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

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ECTION	PERM	D/ NTP	22 464		# C	SAMPLE TYPE:	Na2SO4	Na2S04	HNO3		HN03		H2S04				
S	REPORTS TO: Morgan Brown	Morgan	.Brown@a	ılaska.gov	O N T	Comp Grab		. Coli	H Hg	Metals	quess	Filter)	NO2				
	INVOICE TO: ADEC QUO P.O.				A I N	MI (Multi- incre-	D Fecal	233B E.	Total	Dissolved Metals ilter)	2340B Total hardness	5301B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
t SA	FOR LAB SAMPLE IDENTIFICATION USE	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D Fecal Coliform	SM92223B	245.1	200.8 Di (Lab Filt	2340B 7	5301B D	SM4500 +NO3,TI				REMARKS/ LOC ID
ешеп	DREGRE CAME	06/06/22	12:35	SW	6	6			X	Х	X	X	X				
Aanag		6/06/22	11:42	SV		G			X	$\lambda$	X	X	X				
d o	DAROMCHE33	6/06/22	19,20	SW	6	G			X	X	X	X	X				
SECTION	OAZOMAnch Bact 20-01	-	11:00	SW	5	G			7	χ	Χ	X	$\times$				
S is a registered to			· · · · · · · · · · · · · · · · · · ·														
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© SGS North An		DATE 6/0/22	TIME 1305	RECEIVED	FOR LA	BORATO	RY/BY:			C	)R AME	BIENT	] elpt Forn	1)	INTA(	ст в	ROKEN ABSENT  Sample Receipt Form)



# **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:	5/26/2022
Reason for	Analytical requests
Clarification:	
Notes:	
	200.8 Dissolved Metals = 200.8 Dissolved Metals Scan (needs Lab Filter, then preservation. Should be separate sample)
	DOC also needs Lab Filter then preservation
	T-Phos, NO2NO3, TKN = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite-N, and 4500 TKN



Page 41 of 61

COC	e-Sam <u>p</u>	le Receipt	Form	
202	SGS Workorder #:	1	222761	1222761
Re	eview Criteria	Condition (Yes,	No, N/A	xceptions Noted below
	dy / Temperature Requirements		Note: Temperature and COC s	seal information is found on the chain of custody form
DOD only: Did all sa	imple coolers have a corresponding			
	If <0°C, were sample containers ice			
	Note containers receive	ed with ice:		
	tainers received at non-compliant ter	is needed)		
	•		Note: Refer to form F-083 "Samp	le Guide" for specific holding times and sample containers.
-	les received within analytical holding			
Do sample i	abels match COC? Record discrepa	ncies. res		
	containers differs from COC, default les differ <1hr, record details & login			
	Were analytical requests	clear? Yes		
(i.e. method is specified fo	or analyses with multiple option for m			
•	vs 8260, Metals 6020 vs 200.8)			
Were proper containe	ers (type/mass/volume/preservative)u	ısed? Yes		
Note: Exemption for	metals analysis by 200.8/6020 in wa	ater.		
Volatile Analysis Re	equirements (VOC, GRO, LL-Hg	ı, etc.)		
Vere all soil VOAs received	with a corresponding % solids conta	ainer? N/A		
Were Trip Blanks (e	e.g., VOAs, LL-Hg) in cooler with sam	nples? N/A		
	free of headspace (e.g., bubbles ≤ 6			
	VOAs field extracted with Methanol+			
Note to Client: Any	y "No", answer above indicates non-o			ures and may impact data quality.
	<u>Additional</u>	notes (if a	pplicable):	

F102b\_SRFpm\_20210526



#### **Sample Containers and Preservatives**

Container Id	<u>Preservative</u>	<u>Container</u> <u>Condition</u>	Container Id	<u>Preservative</u>	Container Condition
1222761001-A	HNO3 to pH < 2	ОК			
1222761001-B	HNO3 to pH < 2	OK			
1222761001-C	No Preservative Required	ОК			
1222761001-D	No Preservative Required	ОК			
1222761001-E	H2SO4 to pH < 2	ОК			
1222761002-A	HNO3 to pH < 2	ОК			
1222761002-B	HNO3 to pH < 2	ОК			
1222761002-C	No Preservative Required	ОК			
1222761002-D	No Preservative Required	ОК			
1222761002-E	H2SO4 to pH < 2	ОК			
1222761003-A	HNO3 to pH < 2	ОК			
1222761003-B	HNO3 to pH < 2	OK			
1222761003-C	No Preservative Required	OK			
1222761003-D	No Preservative Required	OK			
1222761003-E	H2SO4 to pH < 2	OK			
1222761004-A	HNO3 to pH $< 2$	ОК			
1222761004-B	HNO3 to pH $< 2$	ОК			
1222761004-C	No Preservative Required	OK			
1222761004-D	No Preservative Required	ОК			
1222761004-E	H2SO4 to pH < 2	ОК			
1222761005-A	No Preservative Required	ОК			
1222761005-B	No Preservative Required	ОК			
1222761006-A	No Preservative Required	OK			
1222761006-B	No Preservative Required	OK			
1222761007-A	No Preservative Required	OK			
1222761007-B	No Preservative Required	OK			
1222761008-A	No Preservative Required	OK			
1222761008-B	No Preservative Required	OK			

#### **Container Condition Glossary**

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

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



Orlando, FL 06/15/22

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

e-Hardcopy 2.0 **Automated Report** 

### **Technical Report for**

**SGS North America, Inc** 

1222761

SGS Job Number: FA96293

**Sampling Date: 06/06/22** 

### 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: 19



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

**Norm Farmer Technical Director** 

Client Service contact: Andrea Colby 407-425-6700

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

### **Sections:**

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## **Sample Summary**

SGS North America, Inc

1222761

**Job No:** FA96293

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
FA96293-1	06/06/22	12:35	06/08/22	AQ	Water	CAM6
FA96293-2	06/06/22	11:42	06/08/22	AQ	Water	CHE3
FA96293-3	06/06/22	10:20	06/08/22	AQ	Water	CHE33
FA96293-4	06/06/22	11:00	06/08/22	AO	Water	ANCHBACT20-01

#### SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc Job No: FA96293

Site: 1222761 Report Date: 6/15/2022 3:51:44 PM

On 06/08/2022, 4 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 FA96293 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: MP40843

Sample(s) FA96353-1DUP, FA96353-1MSD, FA96353-1SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Mercury are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recovery(s) for Mercury are outside control limits. Probable cause is due to matrix interference.

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 Serv	rices (Signature on File)

**Summary of Hits Job Number:** FA96293

Account: SGS North America, Inc

**Project:** 1222761 **Collected:** 06/06/22

Lab Sample ID	Client Sample ID	Result/				
Analyte		Qual	$\mathbf{RL}$	MDL	Units	Method

FA96293-1 CAM6

No hits reported in this sample.

FA96293-2 CHE3

No hits reported in this sample.

FA96293-3 CHE33

No hits reported in this sample.

FA96293-4 ANCHBACT20-01

No hits reported in this sample.



# Orlando, FL

# Section 4

Sample Results	
Report of Analysis	

Page 1 of 1

### 4

## Report of Analysis

Client Sample ID: CAM6
Lab Sample ID: FA96293-1
Matrix: AQ - Water

**Date Sampled:** 06/06/22 **Date Received:** 06/08/22 **Percent Solids:** n/a

**Project:** 1222761

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

Page 1 of 1

### 4

## Report of Analysis

Client Sample ID: CHE3
Lab Sample ID: FA96293-2
Matrix: AQ - Water

**Date Sampled:** 06/06/22 **Date Received:** 06/08/22 **Percent Solids:** n/a

**Project:** 1222761

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	<b>Prep Method</b>
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

Page 1 of 1

### 4

## Report of Analysis

 Client Sample ID:
 CHE33

 Lab Sample ID:
 FA96293-3
 Date Sampled:
 06/06/22

 Matrix:
 AQ - Water
 Date Received:
 06/08/22

 Percent Solids:
 n/a

**Project:** 1222761

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

### **Report of Analysis**

Client Sample ID: ANCHBACT20-01

 Lab Sample ID:
 FA96293-4
 Date Sampled:
 06/06/22

 Matrix:
 AQ - Water
 Date Received:
 06/08/22

 Percent Solids:
 n/a

**Project:** 1222761

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>



# Orlando, FL

Misc. Forms
Custody Documents and Other Forms
Includes the following where applicable:

• Chain of Custody

# SGS North America Inc. CHAIN OF CUSTODY RECORD°

6293

Locations Nationwide

Alaska Flo New Jersey Co

New Jersey Colorado Texas North Carolina Virginia Louisiana

www.us.sgs.com

1222761 Shumway	PHONE NO: PWSID#: NPDL#: E-MAIL:	(907) 56	2-2343		Refere	Comr	nents	s: All				ndo, FL	nt unless	Page 1 of 1
1222761 Shumway	PWSID#: NPDL#: E-MAIL:		2-2343	_	Preserv-		nents	s: All	soils	repo	rt ou	t in drv weigt	nt unless	rage i ui i
1222761 Shumway	NPDL#: E-MAIL:	Julie.Shumwa		#			7							
Shumway	E-MAIL:	Julie.Shumwa		1										
,		Julie.Shumwa		С	Used:	<sup>kINO</sup> 3								
Alaska	Env.Alaska.f		y@sgs.con		TYPE									
Alaska		RefLabTeam@	Dsgs.com	N T	C = COMP	<u> </u>								
	QUOTE #:			A	G=	, Total		1 1						
unting@sgs.com	P.O.#:	1222	761	i N	GRAB MI =	245.1,								
PLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	E R S	Multi Incre- mental Solls	Mercury 2				MS	MSD	SGS lab#	ı	ocation ID
Cam6	06/06/2022	12:35:00	Water	1		Ϊ́х						1222761001		
Che3	06/06/2022	11:42:00	Water	1		Х						1222761002		
Che33	06/06/2022	10:20:00	Water	1		х						1222761003		
AnchBact20-01	06/06/2022	11:00:00	Water	1		Х						1222761004		
	VI 04	Time	Received	By:				l l	•			NO	Data Deliver	able Requirements:
MISAU	6/7/22	1006	(a)	clo	ry	Po	gas	Repor	t to DL oort as I	L (J FI	ags)? /LOQ.	NO		Level 2
	Date	Time	Received	Ву:			0							
The function is a second to the second to th			nd-or Spec	al Instructions:										
		Time	Received	Ву:										
						Temp Blank °C:					Chain of C	ustody Seal: (Circle)		
Relinquished By: (4) Date Time Received		Received	For Laboratory By:			or Ambient [ ]				[]	INTACT	BROKEN ABSENT		
	Cam6 Che3 Che33 AnchBact20-01	Date   Camb	Date   Time   Date   Time   Date   Time   Date   Time   Time   Date   Time   Time   Date   Time   Time	Date   Time   Received   Time   Time   Received   Time   Time	Date   Time   Received By:	Cam6	Cam6	Cam6	Cam6	Cam6	Cam6	Cam6	Cam6	Cam6

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301 [ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557 http://www.sgs.com/terms and conditions.htm
INITIAL ASSESSMENT\_

INTIME MODEOUTIES

LABEL VERIFICATION

F088\_COC\_REF\_LAB\_20190411

FA96293: Chain of Custody Page 1 of 2

## 5.1

### SGS Sample Receipt Summary

Job Number: FA9	6293	Clier	nt: ALASKA	1	Project: 1222761				
Date / Time Received: 6/8/2	2022 3:00:00	PM	Delivery	Method: FED EX	Airbill #'s: 1483 4802 3310				
Therm ID: IR 1;			Therm C	<b>CF:</b> 0.4;	# of Coole	rs: 1			
Cooler Temps (Raw Meas	sured) °C: C	ooler 1: (4	1.8);						
Cooler Temps (Corr	ected) °C: C	ooler 1: (	5.2);						
Cooler Information	<u>Y</u> c	or N		Sample Informat	tion	Υo	r N	N/A	
Custody Seals Present	<b>✓</b>			1. Sample labels p	resent on bottles	<b>~</b>			
Custody Seals Intact	<b>✓</b>			2. Samples preser	ved properly	✓			
3. Temp criteria achieved	<b>✓</b>			3. Sufficient volum	e/containers recvd for analysis:	<b>✓</b>			
4. Cooler temp verification	IR Gun	Į		4. Condition of sar	nple	<u>Intact</u>			
5. Cooler media	Ice (Ba	g)		5. Sample recvd w	ithin HT	✓			
				6. Dates/Times/IDs	s on COC match Sample Label	✓			
Trip Blank Information	<u>Y</u> 0	r N	<u>N/A</u>	7. VOCs have hea	dspace			<b>~</b>	
1. Trip Blank present / cooler			<b>✓</b>	8. Bottles received	for unspecified tests		$\checkmark$		
2. Trip Blank listed on COC			<b>✓</b>	Compositing ins				$\checkmark$	
	w	or S	N/A		ars received past 48hrs?			$\checkmark$	
3. Type Of TB Received			✓	11. % Solids Jar re				<b>~</b>	
				12. Residual Chlor	rine Present?			✓	
Misc. Information									
Number of Encores: 25-	Gram	5-Gran	n	Number of 5035 Field Kits:	Number of La	ab Filtered	Metals:		
Test Strip Lot #s:		•	315				_		
Residual Chlorine Test Stri									
Comments									
SM001 Rev. Date 05/24/17 Techi	nician: CARLO	OSD	Date:	6/8/2022 3:00:00 PM	Reviewer:		Date:		

FA96293: 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: FA96293 Account: SGSAKA - SGS North America, Inc Project: 1222761

06/14/22

Project: 1222/6

QC Batch ID: MP40843 Matrix Type: AQUEOUS

Prep Date:

Methods: EPA 245.1 Units: ug/l

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.0034	<0.50

Associated samples MP40843: FA96293-1, FA96293-2, FA96293-3, FA96293-4

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\bar{\ }$ 

(\*) Outside of QC limits (anr) Analyte not requested

#### MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA96293 Account: SGSAKA - SGS North America, Inc Project: 1222761

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

06/14/22 06/14/22 Prep Date:

Metal	FA96353- Original		RPD	QC Limits	FA96353-3 Original		Spikelot HGFLWS1		QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	1.3	3	43.3N(a)	70-130

Associated samples MP40843: FA96293-1, FA96293-2, FA96293-3, FA96293-4

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \hfill$ 

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96293 Account: SGSAKA - SGS North America, Inc Project: 1222761

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

Prep Date:

06/14/22

Metal	FA96353-1 Original M	Spikelot MSD HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0 1	1.3 3	43.3N(a)	0.0	

Associated samples MP40843: FA96293-1, FA96293-2, FA96293-3, FA96293-4

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \hfill$ 

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96293
Account: SGSAKA - SGS North America, Inc
Project: 1222761

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/1

Prep Date: 06/14/22

BSP Spikelot QC Result HGFLWS1 % Rec Limits	
ary 3.0 3 100.0 85-115	

Associated samples MP40843: FA96293-1, FA96293-2, FA96293-3, FA96293-4

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

#### SERIAL DILUTION RESULTS SUMMARY

Login Number: FA96293 Account: SGSAKA - SGS North America, Inc Project: 1222761

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/1

Prep Date: 06/14/22

Associated samples MP40843: FA96293-1, FA96293-2, FA96293-3, FA96293-4

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



#### **Laboratory Report of Analysis**

To: ADEC-Air & Water Quality

610 University Drive Fairbanks, AK 99709 (907)451-2141

Report Number: 1222817
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: 06/28/2022 3:20:18PM Results via Engage



#### **Case Narrative**

SGS Client: ADEC-Air & Water Quality SGS Project: 1222817 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

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

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



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

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

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

\* The analyte has exceeded allowable regulatory or control limits.

! Surrogate out of control limits.

B Indicates the analyte is found in a blank associated with the sample.

CCV/CVA/CVB Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB Closing Continuing Calibration Verification

CL Control Limit

DF Analytical Dilution Factor

DL Detection Limit (i.e., maximum method detection limit)
E The analyte result is above the calibrated range.

GT Greater Than
IB Instrument Blank

ICV Initial Calibration Verification

J The quantitation is an estimation.

LCS(D) Laboratory Control Spike (Duplicate)

LUQC/LLIQC Low Level Quantitation Check

LOD Limit of Detection (i.e., 1/2 of the LOQ)

LOQ Limit of Quantitation (i.e., reporting or practical quantitation limit)

LT Less Than MB Method Blank

MS(D) Matrix Spike (Duplicate)

ND Indicates the analyte is not detected.

RPD Relative Percent Difference
TNTC Too Numerous To Count

U Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

All DRO/RRO analyses are integrated per SOP.

Print Date: 06/28/2022 3:20:21PM

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518



#### **Sample Summary**

Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>
WA01	1222817001	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WA04	1222817002	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WA01	1222817003	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WA04	1222817004	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)

MethodMethod DescriptionSM 5310BDissolved Organic CarbonSM21 2340BHardness as CaCO3 by ICP-MSEP200.8Metals in Drinking Water by ICP-MS DISSO

EP200.8 Metals in Water by 200.8 ICP-MS SM21 4500NO3-F Nitrate/Nitrite Flow injection Pres.

SM23 4500-N D TKN by Phenate (W)
SM21 4500P-B,E Total Phosphorus (W)



# **Detectable Results Summary**

Lab Sample ID: 1222817001         Parameter         Result         Units           Metals by ICP/MS         Calcium         15300         ug/L           Hardness as CaCO3         49.1         mg/L           Magnesium         2650         ug/L           Waters Department         TOC Average, Dissolved         2.23         mg/L           Client Sample ID: WA04         Units         Washing Calcium         24500         ug/L           Lab Sample ID: 1222817002         Parameter         Result         Units           Metals by ICP/MS         Calcium         24500         ug/L           Hardness as CaCO3         77.5         mg/L           Hardness as CaCO3         77.5         mg/L           Waters Department         TOC Average, Dissolved         2.19         mg/L           Waters Department         TOC Average, Dissolved         2.19         mg/L           Client Sample ID: WA01         Units         Washing Calcium         10.0         ug/L           Lab Sample ID: 1222817003         Parameter         Result         Units           Magnesium         15000         ug/L           Sodium         2220         ug/L           Lab Sample ID: WA04         Units         Washing	Client Sample ID: WA01			
Waters Department         Hardness as CaCO3 Magnesium         49.1 mg/L Magnesium         mg/L Magnesium           Client Sample ID: WA04         70C Average, Dissolved Total Nitrate/Nitrite-N         2.23 mg/L Ng/L Mg/L Mg/L Mg/L Mg/L Mg/L Mg/L Mg/L M	Lab Sample ID: 1222817001	<u>Parameter</u>	Result	<u>Units</u>
Waters Department         Magnesium         2650         ug/L           Waters Department         TOC Average, Dissolved Total Nitrate/Nitrite-N         2.23         mg/L           Client Sample ID: WA04         Lab Sample ID: 1222817002         Parameter Parameter         Result Puits         Units           Metals by ICP/MS         Calcium         24500         ug/L           Hardness as CaCO3         77.5         mg/L           Magnesium         3930         ug/L           Waters Department         TOC Average, Dissolved 2.19         mg/L           Client Sample ID: WA01         Lab Sample ID: WA01         Lab Sample ID: WA01           Lab Sample ID: 1222817003         Parameter         Result Puits         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Adagnesium         2460         ug/L           Silicon         3350         ug/L           Lab Sample ID: WA04         Lab Sample ID: WA04           Lab Sample ID: WA04         Parameter         Result Parameter         Units           Dissolved Metals by ICP/MS         Parameter         Result Parameter         Parameter         Parameter         Parameter         Parameter         Parameter         Parame	Metals by ICP/MS	Calcium	15300	ug/L
Waters Department         TOC Average, Dissolved Total Nitrate/Nitrite-N         2.23         mg/L           Client Sample ID: WA04         Lab Sample ID: 1222817002         Parameter         Result         Units           Metals by ICP/MS         Calcium         24500         ug/L           Waters Department         TOC Average, Dissolved Magnesium         3930         ug/L           Client Sample ID: WA01         Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Client Sample ID: WA04         Lab Sample ID: WA04           Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Parameter         Result         Units           Dissolved Metals by ICP/MS         Parameter         Result         Units           Dissolved Metals by ICP/MS         Parameter         Result         Units           Dissolved Metals by		Hardness as CaCO3	49.1	mg/L
Total Nitrate/Nitrite-N   0.371   mg/L		Magnesium	2650	ug/L
Client Sample ID: WA04         Lab Sample ID: 1222817002       Parameter       Result       Units         Metals by ICP/MS       Calcium       24500       ug/L         Hardness as CaCO3       77.5       mg/L         Magnesium       3930       ug/L         Waters Department       TOC Average, Dissolved       2.19       mg/L         Client Sample ID: WA01       Total Nitrate/Nitrite-N       0.432       mg/L         Lab Sample ID: 1222817003       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       10.0       ug/L         Calcium       15000       ug/L         Magnesium       2460       ug/L         Silicon       3350       ug/L         Client Sample ID: WA04       Zinc       12.3       ug/L         Lab Sample ID: 1222817004       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       11.2       ug/L         Calcium       23900       ug/L         Magnesium       3740       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L	Waters Department	TOC Average, Dissolved	2.23	mg/L
Lab Sample ID: 1222817002         Parameter         Result         Units           Metals by ICP/MS         Calcium         24500         ug/L           Hardness as CaCO3         77.5         mg/L           Magnesium         3930         ug/L           Waters Department         TOC Average, Dissolved         2.19         mg/L           Total Nitrate/Nitrite-N         0.432         mg/L           Lab Sample ID: WA01         Farameter         Result         Units           Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Magnesium         2460         ug/L           Silicon         3350         ug/L           Calcium         2220         ug/L           Lab Sample ID: WA04         Farameter         Result         Units           Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Magnesium         3740         ug/L           Magnesium         559         ug/L           Potassium         510         ug/L           Willi		Total Nitrate/Nitrite-N	0.371	mg/L
Lab Sample ID: 1222817002         Parameter         Result         Units           Metals by ICP/MS         Calcium         24500         ug/L           Hardness as CaCO3         77.5         mg/L           Magnesium         3930         ug/L           Waters Department         TOC Average, Dissolved         2.19         mg/L           Total Nitrate/Nitrite-N         0.432         mg/L           Lab Sample ID: WA01         Farameter         Result         Units           Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Magnesium         2460         ug/L           Silicon         3350         ug/L           Calcium         2220         ug/L           Lab Sample ID: WA04         Farameter         Result         Units           Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Magnesium         3740         ug/L           Magnesium         559         ug/L           Potassium         510         ug/L           Willi	Client Sample ID: WA04			
Metals by ICP/MS         Calcium         24500         ug/L           Hardness as CaCO3         77.5         mg/L           Magnesium         3930         ug/L           Waters Department         TOC Average, Dissolved         2.19         mg/L           Client Sample ID: WA01         Total Nitrate/Nitrite-N         0.432         mg/L           Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Sodium         2220         ug/L           Sodium         2220         ug/L           Lab Sample ID: WA04         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Fotassium         559         ug/L           Silicon         3890         ug/L	Lab Sample ID: 1222817002	Parameter	Result	Units
Hardness as CaCO3   77.5   mg/L     Magnesium   3930   ug/L     Waters Department   TOC Average, Dissolved   2.19   mg/L     Total Nitrate/Nitrite-N   0.432   mg/L     Client Sample ID: WA01   Eab Sample ID: 1222817003   Parameter   Result   Units     Dissolved Metals by ICP/MS   Barium   10.0   ug/L     Calcium   15000   ug/L     Magnesium   2460   ug/L     Silicon   3350   ug/L     Sodium   2220   ug/L     Zinc   12.3   ug/L     Client Sample ID: WA04   Parameter   Result   Units     Dissolved Metals by ICP/MS   Barium   11.2   ug/L     Dissolved Metals by ICP/MS   Barium   11.2   ug/L     Calcium   23900   ug/L     Magnesium   3740   ug/L     Magnesium   3740   ug/L     Potassium   559   ug/L     Potassium   559   ug/L     Silicon   3890   ug/L     Outproved   1000   1000   1000   1000   1000     Calcium   2000   0000   1000     Calcium   2000   0000   1000   1000     Calcium   2000   0000   1000     Potassium   3740   0000   1000   1000     Silicon   3890   ug/L     Outproved   3890   ug/L	Metals by ICP/MS			
Waters Department         Magnesium         3930         ug/L           TOC Average, Dissolved         2.19         mg/L           Total Nitrate/Nitrite-N         0.432         mg/L           Client Sample ID: WA01         Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Sodium         2220         ug/L           Zinc         12.3         ug/L           Client Sample ID: WA04         Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L	motate by for fine	Hardness as CaCO3	77.5	_
Waters Department         TOC Average, Dissolved Total Nitrate/Nitrite-N         2.19         mg/L mg/L           Client Sample ID: WA01         Lab Sample ID: 1222817003         Parameter         Result Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Silicon         3350         ug/L           Sodium         2220         ug/L           Zinc         12.3         ug/L           Lab Sample ID: WA04         Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L		Magnesium	3930	•
Total Nitrate/Nitrite-N       0.432       mg/L         Client Sample ID: WA01         Lab Sample ID: 1222817003       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       10.0       ug/L         Calcium       15000       ug/L         Magnesium       2460       ug/L         Sodium       2220       ug/L         Sodium       2220       ug/L         Lab Sample ID: WA04       Vinits         Lab Sample ID: 1222817004       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       11.2       ug/L         Magnesium       3740       ug/L         Magnesium       559       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L	Waters Department	TOC Average, Dissolved	2.19	_
Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Sodium         2220         ug/L           Zinc         12.3         ug/L           Lab Sample ID: WA04         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L		Total Nitrate/Nitrite-N	0.432	_
Lab Sample ID: 1222817003         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Sodium         2220         ug/L           Zinc         12.3         ug/L           Lab Sample ID: WA04         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L	Client Sample ID: WA01			
Dissolved Metals by ICP/MS         Barium         10.0         ug/L           Calcium         15000         ug/L           Magnesium         2460         ug/L           Silicon         3350         ug/L           Sodium         2220         ug/L           Zinc         12.3         ug/L           Client Sample ID: WA04         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L	•	Parameter	Result	Units
Calcium 15000 ug/L Magnesium 2460 ug/L Silicon 3350 ug/L Sodium 2220 ug/L Zinc 12.3 ug/L Client Sample ID: WA04 Lab Sample ID: 1222817004 Parameter Result Units Dissolved Metals by ICP/MS Barium 11.2 ug/L Calcium 23900 ug/L Magnesium 3740 ug/L Potassium 559 ug/L Silicon 3890 ug/L	·			
Magnesium   2460   ug/L     Silicon   3350   ug/L     Sodium   2220   ug/L     Zinc   12.3   ug/L     Client Sample ID: WA04   Parameter   Result   Units     Dissolved Metals by ICP/MS   Barium   11.2   ug/L     Calcium   23900   ug/L     Magnesium   3740   ug/L     Potassium   559   ug/L     Silicon   3890   ug/L     Silicon   3890   ug/L     Calcium   23800   ug/L     Calcium   3890   ug/L     Calcium	Dissolved incluis by for fine			_
Silicon       3350       ug/L         Sodium       2220       ug/L         Zinc       12.3       ug/L         Client Sample ID: WA04       Lab Sample ID: 1222817004       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       11.2       ug/L         Calcium       23900       ug/L         Magnesium       3740       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L		<del></del>		_
Sodium         2220         ug/L           Zinc         12.3         ug/L           Client Sample ID: WA04         Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L		_		_
Zinc         12.3         ug/L           Client Sample ID: WA04         Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L		Sodium	2220	_
Client Sample ID: WA04         Lab Sample ID: 1222817004       Parameter       Result       Units         Dissolved Metals by ICP/MS       Barium       11.2       ug/L         Calcium       23900       ug/L         Magnesium       3740       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L		Zinc	12.3	_
Lab Sample ID: 1222817004         Parameter         Result         Units           Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L	Client Sample ID: WAM			Ü
Dissolved Metals by ICP/MS         Barium         11.2         ug/L           Calcium         23900         ug/L           Magnesium         3740         ug/L           Potassium         559         ug/L           Silicon         3890         ug/L	•	Darameter	Popult	Linita
Calcium       23900       ug/L         Magnesium       3740       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L	·			
Magnesium       3740       ug/L         Potassium       559       ug/L         Silicon       3890       ug/L	Dissolved Metals by ICP/M5		—	_
Potassium 559 ug/L Silicon 3890 ug/L				_
Silicon 3890 ug/L		_		_
				_
Socium 3230 ug/L				_
		Soulum	3230	ug/L



Client Sample ID: **WA01**Client Project ID: **WHADA**Lab Sample ID: 1222817001
Lab Project ID: 1222817

Collection Date: 06/07/22 10:30 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	15300	500	150	ug/L	1		06/22/22 19:04
Magnesium	2650	50.0	15.0	ug/L	1		06/22/22 19:04

#### **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8

Analyst: AKA

Analytical Date/Time: 06/22/22 19:04 Container ID: 1222817001-B Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	49.1	5.00	5.00	mg/L	1		06/22/22 19:04

#### **Batch Information**

Analytical Batch: MMS11587 Analytical Method: SM21 2340B

Analyst: AKA

Analytical Date/Time: 06/22/22 19:04 Container ID: 1222817001-B Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **WA01**Client Project ID: **WHADA**Lab Sample ID: 1222817001
Lab Project ID: 1222817

Collection Date: 06/07/22 10:30 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

Results by Waters Department

Allowable Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed <u>Parameter</u> **Limits** TOC Average, Dissolved 2.23 1.00 0.400 mg/L 1 06/17/22 01:28

**Batch Information** 

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/17/22 01:28 Container ID: 1222817001-C

<u>Allowable</u> LOQ/CL <u>Units</u> <u>Parameter</u> Result Qual DL <u>DF</u> Date Analyzed Limits Total Nitrate/Nitrite-N 0.371 0.200 0.0500 2 06/15/22 12:20 mg/L

**Batch Information** 

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 12:20 Container ID: 1222817001-D

Allowable LOQ/CL Date Analyzed Parameter Result Qual DL **Units** <u>DF</u> Limits Total Phosphorus 0.0400 U 0.0400 0.0120 1 06/24/22 17:24 mg/L

**Batch Information** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:24 Container ID: 1222817001-D Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL Limits **Parameter** Result Qual DL **Units** <u>DF</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 06/24/22 10:19 1



Client Sample ID: **WA01**Client Project ID: **WHADA**Lab Sample ID: 1222817001
Lab Project ID: 1222817

Collection Date: 06/07/22 10:30 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Waters Department

#### **Batch Information**

Analytical Batch: WDA5224 Analytical Method: SM23 4500-N D

Analyst: DMM

Analytical Date/Time: 06/24/22 10:19 Container ID: 1222817001-D Prep Batch: WXX14252
Prep Method: METHOD
Prep Date/Time: 06/23/22 12:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Client Sample ID: **WA04**Client Project ID: **WHADA**Lab Sample ID: 1222817002
Lab Project ID: 1222817

Collection Date: 06/07/22 11:42 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	24500	500	150	ug/L	1		06/22/22 19:07
Magnesium	3930	50.0	15.0	ug/L	1		06/22/22 19:07

#### **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8

Analyst: AKA

Analytical Date/Time: 06/22/22 19:07 Container ID: 1222817002-B Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	77.5	5.00	5.00	mg/L	1		06/22/22 19:07

#### **Batch Information**

Analytical Batch: MMS11587 Analytical Method: SM21 2340B

Analyst: AKA

Analytical Date/Time: 06/22/22 19:07 Container ID: 1222817002-B Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **WA04**Client Project ID: **WHADA**Lab Sample ID: 1222817002
Lab Project ID: 1222817

Collection Date: 06/07/22 11:42 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

Results by Waters Department

Allowable Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed <u>Parameter</u> **Limits** TOC Average, Dissolved 2.19 1.00 0.400 mg/L 1 06/17/22 01:41

**Batch Information** 

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/17/22 01:41 Container ID: 1222817002-C

<u>Allowable</u> LOQ/CL <u>Units</u> <u>Parameter</u> Result Qual DL <u>DF</u> Date Analyzed Limits Total Nitrate/Nitrite-N 0.432 0.200 0.0500 2 06/15/22 12:22 mg/L

**Batch Information** 

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 12:22 Container ID: 1222817002-D

Allowable LOQ/CL Date Analyzed Parameter Result Qual DL **Units** <u>DF</u> Limits Total Phosphorus 0.0400 U 0.0400 0.0120 1 06/24/22 17:25 mg/L

**Batch Information** 

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:25 Container ID: 1222817002-D Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E

Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable LOQ/CL Limits **Parameter** Result Qual DL **Units** <u>DF</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 06/24/22 10:20 1



Client Sample ID: **WA04**Client Project ID: **WHADA**Lab Sample ID: 1222817002
Lab Project ID: 1222817

Collection Date: 06/07/22 11:42 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Waters Department

#### **Batch Information**

Analytical Batch: WDA5224 Analytical Method: SM23 4500-N D

Analyst: DMM

Analytical Date/Time: 06/24/22 10:20 Container ID: 1222817002-D Prep Batch: WXX14252 Prep Method: METHOD Prep Date/Time: 06/23/22 12:10 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL



Client Sample ID: **WA01**Client Project ID: **WHADA**Lab Sample ID: 1222817003
Lab Project ID: 1222817

Collection Date: 06/07/22 10:30 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	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		06/22/22 19:09
Antimony	1.00 U	1.00	0.310	ug/L	1		06/22/22 19:09
Arsenic	5.00 U	5.00	1.50	ug/L	1		06/22/22 19:09
Barium	10.0	3.00	0.940	ug/L	1		06/22/22 19:09
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/22/22 19:09
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/22/22 19:09
Calcium	15000	500	150	ug/L	1		06/22/22 19:09
Chromium	5.00 U	5.00	2.50	ug/L	1		06/22/22 19:09
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/22/22 19:09
Copper	3.00 U	3.00	1.00	ug/L	1		06/22/22 19:09
Iron	250 U	250	78.0	ug/L	1		06/22/22 19:09
Lead	2.00 U	2.00	0.500	ug/L	1		06/22/22 19:09
Magnesium	2460	50.0	15.0	ug/L	1		06/22/22 19:09
Manganese	1.00 U	1.00	0.350	ug/L	1		06/22/22 19:09
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/22/22 19:09
Nickel	2.00 U	2.00	0.620	ug/L	1		06/22/22 19:09
Phosphorus	200 U	200	62.0	ug/L	1		06/22/22 19:09
Potassium	500 U	500	150	ug/L	1		06/22/22 19:09
Selenium	5.00 U	5.00	1.50	ug/L	1		06/22/22 19:09
Silicon	3350	1000	310	ug/L	1		06/22/22 19:09
Silver	1.00 U	1.00	0.310	ug/L	1		06/22/22 19:09
Sodium	2220	500	150	ug/L	1		06/22/22 19:09
Thallium	1.00 U	1.00	0.310	ug/L	1		06/22/22 19:09
Tin	1.00 U	1.00	0.310	ug/L	1		06/22/22 19:09
Titanium	6.25 U	6.25	3.13	ug/L	1		06/22/22 19:09
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/22/22 19:09
Zinc	12.3	10.0	3.10	ug/L	1		06/22/22 19:09

# **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8

Analyst: AKA

Analytical Date/Time: 06/22/22 19:09 Container ID: 1222817003-A Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: **WA04**Client Project ID: **WHADA**Lab Sample ID: 1222817004
Lab Project ID: 1222817

Collection Date: 06/07/22 11:42 Received Date: 06/07/22 13:59 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

# Results by Dissolved Metals by ICP/MS

						<u>Allowable</u>
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u> <u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1	06/22/22 19:12
Antimony	1.00 U	1.00	0.310	ug/L	1	06/22/22 19:12
Arsenic	5.00 U	5.00	1.50	ug/L	1	06/22/22 19:12
Barium	11.2	3.00	0.940	ug/L	1	06/22/22 19:12
Beryllium	0.400 U	0.400	0.130	ug/L	1	06/22/22 19:12
Cadmium	0.500 U	0.500	0.150	ug/L	1	06/22/22 19:12
Calcium	23900	500	150	ug/L	1	06/22/22 19:12
Chromium	5.00 U	5.00	2.50	ug/L	1	06/22/22 19:12
Cobalt	4.00 U	4.00	1.20	ug/L	1	06/22/22 19:12
Copper	3.00 U	3.00	1.00	ug/L	1	06/22/22 19:12
Iron	250 U	250	78.0	ug/L	1	06/22/22 19:12
Lead	2.00 U	2.00	0.500	ug/L	1	06/22/22 19:12
Magnesium	3740	50.0	15.0	ug/L	1	06/22/22 19:12
Manganese	1.00 U	1.00	0.350	ug/L	1	06/22/22 19:12
Molybdenum	2.00 U	2.00	0.620	ug/L	1	06/22/22 19:12
Nickel	2.00 U	2.00	0.620	ug/L	1	06/22/22 19:12
Phosphorus	200 U	200	62.0	ug/L	1	06/22/22 19:12
Potassium	559	500	150	ug/L	1	06/22/22 19:12
Selenium	5.00 U	5.00	1.50	ug/L	1	06/22/22 19:12
Silicon	3890	1000	310	ug/L	1	06/22/22 19:12
Silver	1.00 U	1.00	0.310	ug/L	1	06/22/22 19:12
Sodium	3230	500	150	ug/L	1	06/22/22 19:12
Thallium	1.00 U	1.00	0.310	ug/L	1	06/22/22 19:12
Tin	1.00 U	1.00	0.310	ug/L	1	06/22/22 19:12
Titanium	6.25 U	6.25	3.13	ug/L	1	06/22/22 19:12
Vanadium	20.0 U	20.0	6.20	ug/L	1	06/22/22 19:12
Zinc	10.0 U	10.0	3.10	ug/L	1	06/22/22 19:12

# **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8

Analyst: AKA

Analytical Date/Time: 06/22/22 19:12 Container ID: 1222817004-A Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 06/16/22 12:41 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



#### **Method Blank**

Blank ID: MB for HBN 1837978 [MXX/35168]

Blank Lab ID: 1668327

QC for Samples:

1222817001, 1222817002, 1222817003, 1222817004

Matrix: Water (Surface, Eff., Ground)

# Results by EP200.8

Parameter	Results	LOQ/CL	DL	Units
Aluminum	10.0U	20.0	6.20	ug/L
Antimony	0.340J	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: MMS11587 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: AKA

Analytical Date/Time: 6/22/2022 6:21:16PM

Prep Batch: MXX35168 Prep Method: E200.2

Prep Date/Time: 6/16/2022 12:41:29PM

Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222817 [MXX35168]

Blank Spike Lab ID: 1668328 Date Analyzed: 06/22/2022 18:23

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002, 1222817003, 1222817004

# Results by EP200.8

Blank Spike (ug/L)									
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	CL					
Aluminum	1000	965	97	(85-115)					
Antimony	1000	990	99	(85-115)					
Arsenic	1000	990	99	(85-115)					
Barium	1000	975	98	(85-115)					
Beryllium	100	99.2	99	(85-115)					
Cadmium	100	97.6	98	(85-115)					
Calcium	10000	9730	97	(85-115)					
Chromium	400	392	98	(85-115)					
Cobalt	500	505	101	(85-115)					
Copper	1000	1020	102	(85-115)					
Iron	5000	5140	103	(85-115)					
Lead	1000	1000	100	(85-115)					
Magnesium	10000	9930	99	(85-115)					
Manganese	500	497	99	(85-115)					
Molybdenum	400	381	95	(85-115)					
Nickel	1000	1000	100	(85-115)					
Phosphorus	500	485	97	(85-115)					
Potassium	10000	9880	99	(85-115)					
Selenium	1000	973	97	(85-115)					
Silicon	10000	9960	100	(85-115)					
Silver	100	97.9	98	(85-115)					
Sodium	10000	9910	99	(85-115)					
Thallium	10	9.66	97	(85-115)					
Tin	100	94.0	94	(85-115)					
Titanium	100	97.6	98	(85-115)					
Vanadium	200	196	98	(85-115)					
Zinc	1000	1000	100	(85-115)					

# **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: AKA

Prep Batch: MXX35168
Prep Method: E200.2

Prep Date/Time: 06/16/2022 12:41

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:



#### **Matrix Spike Summary**

Original Sample ID: 1668374 MS Sample ID: 1668375 MS

MSD Sample ID:

Analysis Date: 06/22/2022 18:29 Analysis Date: 06/22/2022 18:32

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002, 1222817003, 1222817004

# Results by EP200.8

		Ma	trix Spike (	ug/L)	Spike Duplicate (ug/L)					`
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	10.0U	1000	960	96				70-130		
Antimony	0.500U	1000	994	99				70-130		
Arsenic	2.50U	1000	988	99				70-130		
Barium	8.91	1000	983	97				70-130		
Beryllium	0.200U	100	98.4	98				70-130		
Cadmium	0.250U	100	98.3	98				70-130		
Calcium	44600	10000	54800	103				70-130		
Chromium	3.98J	400	396	98				70-130		
Cobalt	2.00U	500	498	100				70-130		
Copper	240	1000	1250	101				70-130		
Iron	125U	5000	5120	102				70-130		
Lead	5.77	1000	995	99				70-130		
Magnesium	8630	10000	18600	100				70-130		
Manganese	0.607J	500	491	98				70-130		
Molybdenum	1.00U	400	385	96				70-130		
Nickel	1.07J	1000	992	99				70-130		
Phosphorus	100U	500	487	98				70-130		
Potassium	532	10000	10400	98				70-130		
Selenium	2.50U	1000	970	97				70-130		
Silicon	7650	10000	17500	99				70-130		
Silver	0.500U	100	97	97				70-130		
Sodium	4020	10000	13900	99				70-130		
Thallium	0.500U	10.0	9.63	96				70-130		
Tin	0.310J	100	95.3	95				70-130		
Titanium	12.5U	100	98.6	99				70-130		
Vanadium	10.0U	200	194	97				70-130		
Zinc	571	1000	1590	102				70-130		

# **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: AKA

Analytical Date/Time: 6/22/2022 6:32:05PM

Prep Batch: MXX35168

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/16/2022 12:41:29PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL



#### **Matrix Spike Summary**

Original Sample ID: 1222875003 MS Sample ID: 1668377 MS

MSD Sample ID:

Analysis Date: 06/22/2022 18:34 Analysis Date: 06/22/2022 18:37

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002, 1222817003, 1222817004

# Results by EP200.8

		Ma	trix Spike (	ug/L)	Spike	e Duplicate	e (ug/L)			`
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	10.0U	1000	950	95				70-130		
Antimony	0.558J	1000	984	98				70-130		
Arsenic	3.49J	1000	985	98				70-130		
Barium	44.5	1000	1010	97				70-130		
Beryllium	0.200U	100	95.9	96				70-130		
Cadmium	0.250U	100	97.4	97				70-130		
Calcium	23500	10000	33300	97				70-130		
Chromium	2.50U	400	391	98				70-130		
Cobalt	2.00U	500	498	100				70-130		
Copper	1.50U	1000	1010	101				70-130		
Iron	2090	5000	7130	101				70-130		
Lead	1.00U	1000	980	98				70-130		
Magnesium	6980	10000	16500	95				70-130		
Manganese	92.3	500	584	98				70-130		
Molybdenum	1.71J	400	382	95				70-130		
Nickel	2.33	1000	987	99				70-130		
Phosphorus	100U	500	522	104				70-130		
Potassium	6850	10000	16600	98				70-130		
Selenium	2.50U	1000	966	97				70-130		
Silicon	1840	10000	11600	97				70-130		
Silver	0.500U	100	97	97				70-130		
Sodium	4330	10000	14000	97				70-130		
Thallium	0.500U	10.0	9.67	97				70-130		
Tin	0.500U	100	93.9	94				70-130		
Titanium	12.5U	100	97.5	98				70-130		
Vanadium	10.0U	200	196	98				70-130		
Zinc	10.4	1000	1010	100				70-130		

# **Batch Information**

Analytical Batch: MMS11587 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: AKA

Analytical Date/Time: 6/22/2022 6:37:29PM

Prep Batch: MXX35168

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/16/2022 12:41:29PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL



# Method Blank

Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668185

QC for Samples:

1222817001, 1222817002

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 4500NO3-F

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

# **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:29:31PM



# Method Blank

Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668194

QC for Samples:

1222817001, 1222817002

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 4500NO3-F

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

# **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:33:30AM



# **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222817 [WFI2992]

Blank Spike Lab ID: 1668187 Date Analyzed: 06/15/2022 12:27

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002

# Results by SM21 4500NO3-F

Blank Spike (mg/L)						
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>CL</u>		
Nitrate-N	2.5	2.42	97	(70-130)		
Nitrite-N	2.5	2.50	100	(90-110)		
Total Nitrate/Nitrite-N	5	4.92	98	(90-110)		

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: **EBH** 



# **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222817 [WFI2992]

Blank Spike Lab ID: 1668196 Date Analyzed: 06/15/2022 11:31

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002

# Results by SM21 4500NO3-F

Blank Spike (mg/L)						
<u>Parameter</u>	Spike	Result	Rec (%)	<u>CL</u>		
Nitrate-N	2.5	2.29	91	(70-130)		
Nitrite-N	2.5	2.26	90	(90-110)		
Total Nitrate/Nitrite-N	5	4.54	91	(90-110)		

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: **EBH** 



#### **Matrix Spike Summary**

Original Sample ID: 1668169 MS Sample ID: 1668173 MS MSD Sample ID: 1668174 MSD

Analysis Date: 06/15/2022 11:40 Analysis Date: 06/15/2022 11:42

Analysis Date: 06/15/2022 11:38

Matrix: Drinking Water

QC for Samples: 1222817001, 1222817002

# Results by SM21 4500NO3-F

		Mat	trix Spike (	mg/L)	Spike	Duplicate	(mg/L)			
<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	4.15	2.50	7.07	117	2.50	6.72	103	70-130	5.10	(< 25)
Nitrite-N	0.0522J	2.50	2.4	94	2.50	2.39	93	90-110	0.50	(< 25)

# **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:40:30AM



#### **Matrix Spike Summary**

Original Sample ID: 1222827001 MS Sample ID: 1668209 MS MSD Sample ID: 1668210 MSD

Analysis Date: 06/15/2022 12:33 Analysis Date: 06/15/2022 12:34 Analysis Date: 06/15/2022 12:36

Matrix: Drinking Water

QC for Samples: 1222817001, 1222817002

# Results by SM21 4500NO3-F

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD CL Total Nitrate/Nitrite-N 0.200U 5.00 5.33 107 5.00 5.19 104 90-110 2.70 (< 25)

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:34:00PM



#### **Method Blank**

Blank ID: MB for HBN 1838669 [WXX/14252]

Blank Lab ID: 1669713

QC for Samples:

1222817001, 1222817002

Matrix: Water (Surface, Eff., Ground)

# Results by SM23 4500-N D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Kjeldahl Nitrogen
 0.500U
 1.00
 0.310
 mg/L

#### **Batch Information**

Analytical Batch: WDA5224 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 9:00:29AM

Prep Batch: WXX14252 Prep Method: METHOD

Prep Date/Time: 6/23/2022 12:10:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222817 [WXX14252]

Blank Spike Lab ID: 1669714 Date Analyzed: 06/24/2022 09:01 Spike Duplicate ID: LCSD for HBN 1222817

[WXX14252]

Spike Duplicate Lab ID: 1669715 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002

# Results by SM23 4500-N D

	I	Blank Spike	(mg/L)	5	Spike Duplic	cate (mg/L)			
<u>Parameter</u>	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.18	104	4	3.79	95	(75-125)	9.60	(< 25)

#### **Batch Information**

Analytical Batch: WDA5224 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14252
Prep Method: METHOD

Prep Date/Time: 06/23/2022 12:10

Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL



#### **Matrix Spike Summary**

Original Sample ID: 1220002006 MS Sample ID: 1669716 MS MSD Sample ID: 1669717 MSD

QC for Samples: 1222817001, 1222817002

Analysis Date: 06/24/2022 10:00 Analysis Date: 06/24/2022 10:01 Analysis Date: 06/24/2022 10:02

Matrix: Water (Surface, Eff., Ground)

# Results by SM23 4500-N D

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) RPD (%) RPD CL CL Total Kjeldahl Nitrogen 1.00U 4.00 3.97 99 4.00 4.50 112 75-125 12.30 (< 25)

#### **Batch Information**

Analytical Batch: WDA5224 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 10:01:30AM

Prep Batch: WXX14252

Prep Method: Distillation TKN by Phenate (W) Prep Date/Time: 6/23/2022 12:10:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL



#### **Method Blank**

Blank ID: MB for HBN 1838894 [WXX/14256]

Blank Lab ID: 1670166

QC for Samples:

1222817001, 1222817002

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 4500P-B,E

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Phosphorus
 0.0200U
 0.0400
 0.0120
 mg/L

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 4:56:58PM

Prep Batch: WXX14256
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222817 [WXX14256]

Blank Spike Lab ID: 1670167 Date Analyzed: 06/24/2022 16:57 Spike Duplicate ID: LCSD for HBN 1222817

[WXX14256]

Spike Duplicate Lab ID: 1670168

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222817001, 1222817002

# Results by SM21 4500P-B,E

Blank Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> Spike Result Rec (%) Spike Rec (%) RPD (%) RPD CL Result **Total Phosphorus** 0.205 0.2 0.204 102 (< 25)0.2 102 (75-125)0.44

#### **Batch Information**

Analytical Batch: WDA5225
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/2022 15:09

Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL



#### **Matrix Spike Summary**

Original Sample ID: 1222761001 MS Sample ID: 1670175 MS MSD Sample ID: 1670176 MSD

QC for Samples: 1222817001, 1222817002

Analysis Date: 06/24/2022 17:15 Analysis Date: 06/24/2022 17:16 Analysis Date: 06/24/2022 17:17 Matrix: Water (Surface, Eff., Ground)

Wattix. Water (Gariaco, Ell.,

# Results by SM21 4500P-B,E

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) RPD (%) RPD CL CL **Total Phosphorus** 0.0679 0.200 .272 102 0.200 0.276 104 75-125 1.30 (< 25)

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 5:16:32PM

Prep Batch: WXX14256

Prep Method: Total Phosphorus (W) Ext. Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL





#### mental Services ter Road K 99518

43 www.aga.com/alaska

# SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORI

Profile #385380gm

INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. CLIENT: **ADEC** OMISSIONS MAY DELAY THE ONSET OF ANALYSIS. CONTACT: PHONE #: 907-451-2141 Morgan Brown **SECTION 3 PRESERVATIVE** PROJECT/ **PROJECT** HN03 HN03 H2S04 **WHADA** NTP 22 464 PWSID/ SAMPLE NAME: PERMIT#: С TYPE: E-MAIL: Morgan.Brown@alaska.gov 0 REPORTS TO: Morgan Brown Comp Soi 245.1 Total Hg 2340B Total hardness 200.8 Dissolved Metals (Lab Filter) 5301B DOC (Lab Filter) SM4500 T-Phos, NO2 +NO3,TKN Grab ш INVOICE TO: ADEC QUOTE #: SM92223B P.O. #: (Multi-SM9222D F Coliform Ν incre-MATRIX/ RESERVED Ε DATE TIME mental) REMARKS/ SAMPLE IDENTIFICATION FOR LAB **MATRIX** R MM/DD/YY HH:MM LOC ID s CODE DATOGAPHALA WAO 6 10:30  $\leq \mathcal{U}$ 6 5 WAOY G 11:42 SECTION 4 DOD Project? DATA DELIVERABLE REQUIREMENTS: **RELINQUISHED BY: (1)** DATE TIME ~ RECEIVED BY: COC ID: 06/07/22 Cooler ID: **RELINQUISHED BY:(2)** DATE TIME RECEIVED BY: REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS RELINQUISHED BY:(3) DATE TIME RECEIVED BY: TEMP BLANK C: CHAIN OF CUSTODY SEAL: (CIRCLE) RECEIVED FOR LABORATORY BY: **RELINQUISHED BY:(4)** DATE TIME OR AMBIENT [ ] INTACT BROKEN ABSENT (See attached Sample Receipt Form) (See attached Sample Receipt Form)

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



000	e-Samp	le Receipt	Form	
SGS	SGS Workorder #:	12	222817	1222817
R	eview Criteria	Condition (Yes, N	o, N/A E	xceptions Noted below
	dy / Temperature Requirements		Vote: Temperature and COC se	eal 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 ice			
	Note containers receive	ed with ice:		
	ntainers received at non-compliant ter	is needed)		
	-		lote: Refer to form F-083 "Sampl	le Guide" for specific holding times and sample containers.
·	les received within analytical holding labels match COC? Record discrepa			
·	·			
	containers differs from COC, default nes differ <1hr, record details & login			
	Were analytical requests	clear? Yes		
•	or analyses with multiple option for m 1 vs 8260, Metals 6020 vs 200.8)	ethod		
· · ·	ers (type/mass/volume/preservative)u			
Note: Exemption for	r metals analysis by 200.8/6020 in wa	ater.		
Volatile Analysis R	equirements (VOC, GRO, LL-Hg	j, etc.)		
Vere all soil VOAs receive	d with a corresponding % solids conta	ainer? N/A		
Were Trip Blanks (e	e.g., VOAs, LL-Hg) in cooler with sam	nples? N/A		
	free of headspace (e.g., bubbles ≤ 6	,		
	VOAs field extracted with Methanol+			
Note to Client: An	y "No", answer above indicates non-			ures and may impact data quality.
	<u>Additional</u>	notes (if a	oplicable):	

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# **Sample Containers and Preservatives**

Container Id	<u>Preservative</u>	Container Condition	Container Id	<u>Preservative</u>	Container Condition
1222817001-A	HNO3 to pH < 2	OK			
1222817001-B	HNO3 to pH < 2	OK			
1222817001-C	No Preservative Required	OK			
1222817001-D	H2SO4 to $pH < 2$	OK			
1222817001-E	No Preservative Required	OK			
1222817002-A	HNO3 to pH $< 2$	ОК			
1222817002-B	HNO3 to pH $< 2$	ОК			
1222817002-C	No Preservative Required	OK			
1222817002-D	H2SO4 to pH < 2	ОК			
1222817002-E	No Preservative Required	ОК			
1222817003-A	No Preservative Required	ОК			
1222817003-B	No Preservative Required	OK			
1222817004-A	No Preservative Required	OK			
1222817004-B	No Preservative Required	OK			

#### **Container Condition Glossary**

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

- $\ensuremath{\mathsf{OK}}$  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 06/15/22

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

e-Hardcopy 2.0
Automated Report

# Technical Report for

SGS North America, Inc

1222817

SGS Job Number: FA96336

Sampling Date: 06/07/22

# 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

TNI LABORATORA

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

Norm Farmer Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV 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 • page 33 of 497 SGS is the sole authority for authorizing edits or modifications to this document.

Please share your ideas about

# **Sections:**

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# **Sample Summary**

SGS North America, Inc

1222817

**Job No:** FA96336

Sample	Collected			Matr	ix	Client
Number	Date	Time By	Received	Code	Type	Sample ID
FA96336-1	06/07/22	10:30	06/09/22	AQ	Water	WA01
FA96336-2	06/07/22	11:42	06/09/22	AQ	Water	WA04

#### SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc Job No: FA96336

Site: 1222817 Report Date: 6/15/2022 3:53:17 PM

On 06/09/2022, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA96336 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: MP40843

Sample(s) FA96353-1DUP, FA96353-1MSD, FA96353-1SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Mercury are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recovery(s) for Mercury are outside control limits. Probable cause is due to matrix interference.

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 Fi	– le)

**Summary of Hits Job Number:** FA96336

Account: SGS North America, Inc

**Project:** 1222817 **Collected:** 06/07/22

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

FA96336-1 WA01

No hits reported in this sample.

FA96336-2 WA04

No hits reported in this sample.



# Orlando, FL

# Section 4

Sample Results	
Report of Analysis	

Page 1 of 1

# 4

# Report of Analysis

Client Sample ID: WA01
Lab Sample ID: FA96336-1
Matrix: AQ - Water

Date Sampled: 06/07/22 Date Received: 06/09/22 Percent Solids: n/a

**Project:** 1222817

## **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

(1) Instrument QC Batch: MA18744(2) Prep QC Batch: MP40843

Page 1 of 1

# 4

# Report of Analysis

 Client Sample ID:
 WA04

 Lab Sample ID:
 FA96336-2
 Date Sampled:
 06/07/22

 Matrix:
 AQ - Water
 Date Received:
 06/09/22

 Percent Solids:
 n/a

**Project:** 1222817

## **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

(1) Instrument QC Batch: MA18744(2) Prep QC Batch: MP40843



# Misc. Forms

Orlando, FL

**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

Florida Colorado North Carolina

Texas Virginia Louisiana

www.us.sgs.com

CLIENT	CLIENT: SGS North America Inc Alaska Division				SGS Reference: SGS Orlando, FL									.ags.com	
CONTACT:	Julie Shumway	PHONE NO:	(907) 56	2-2343	Add	itional	Comm	ents	: All				t in dry weigh	t unless	Page 1 of 1
PROJECT NAME:	1222817	PWSID#:	(60.70		# c	Droeon/			7 (1)		, ope				
REPORTS TO	: Julie Shumway		Julie.Shumwa RefLabTeam(		4	TYPE C = COMP	Total								
	SGS - Alaska ka.accounting@sgs.com	QUOTE #: P.O. #:	1222		A I	G = GRAB MI = Multi	245.1,								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	E R S	Incre- mental Solls	Mercury				мѕ	MSD	SGS lab#		ocation ID
- (	WA01	06/07/2022	10:30:00	Water	1		Х						1222817001		
2	WA04	06/07/2022	11:42:00	Water	1		Х						1222817002		
													NITIAL ASSESS	MENT_	
													ABEL VERIFIC	ATION	w
Relinquished	By: (1)	Date	Time	Received	By:			- 1	DOD I	-			NO	Data Delive	rable Requirements:
Id	MUNTURU	6/8/22	09/8						If J- Re	port as	L (J F	lags)? //LOQ.	NO		Level 2
Relinguished	By: (2)	Date 6/4/72	Time A	Received	ell.	3			Coole		ted T	urnar	ound Time ar	nd-or Spec	ial Instructions:
Relinquished	Ву: (3)	Date	Time	Received	Ву:				Temp	Blank	۰°C;	.8	•	Chain of C	ustody Seal: (Circle)
Relinquished	By: (4)	Date	Time	Received	For La	boratory	у Ву:				or A	mbien	t [ ]	INTACT	BROKEN ABSENT

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

F088\_COC\_REF\_LAB\_20190411

FA96336: Chain of Custody Page 1 of 2

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

# 5.1

# **SGS Sample Receipt Summary**

Job Number: FAS	96336	Client:	SGS NORTH AM	ERICA INC -ALASKA DIVI	Project: 122817			
Date / Time Received: 6/9/	2022 3:00:00 PM	И	Delivery Method	: FED EX	Airbill #'s: 1483 4802	2 3365		
Therm ID: IR 1;			Therm CF: 0.4;		# of Coole	rs: 1		
Cooler Temps (Raw Mea	sured) °C: Cod	oler 1: (3.8	);					
Cooler Temps (Corr	rected) °C: Cod	oler 1: (4.2	);					
Cooler Information	Y or	N_		Sample Information		Y or	N	N/A
Custody Seals Present	$\checkmark$			Sample labels present	on bottles	<b>✓</b>		
Custody Seals Intact	$\checkmark$			Samples preserved pre	operly	✓		
3. Temp criteria achieved	$\checkmark$			3. Sufficient volume/conta	ainers recvd for analysis:	<b>✓</b>		
4. Cooler temp verification	IR Gun			4. Condition of sample		<u>Intact</u>		
5. Cooler media	Ice (Bag)			5. Sample recvd within H	Т	✓		
				6. Dates/Times/IDs on C	OC match Sample Label	✓		
Trip Blank Information	Y or	<u>N</u> _	N/A_	<ol><li>VOCs have headspace</li></ol>	е			<b>~</b>
1. Trip Blank present / cooler	. 🗆		$\checkmark$	8. Bottles received for un	specified tests		✓	
2. Trip Blank listed on COC			✓	Compositing instruction				$\checkmark$
	W or	s	N/A	10. Voa Soil Kits/Jars red	•			$\checkmark$
3. Type Of TB Received			<u> </u>	11. % Solids Jar received				<b>✓</b>
			•	12. Residual Chlorine Pre	esent?			✓
Misc. Information								
Number of Encores: 25-	Gram	5-Gram	Nu	mber of 5035 Field Kits:	Number of La	ab Filtered N	/letals:	
Test Strip Lot #s:				oH 10-12 219813A				
Residual Chlorine Test Str					_			
Comments								
SM001 Rev. Date 05/24/17 Tech	nician: TORYW		Date: 6/9/2022	2 3:00:00 PM	Reviewer:		Date:	

FA96336: 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: FA96336 Account: SGSAKA - SGS North America, Inc Project: 1222817

Project: 1222017

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

Prep Date:

06/14/22

Associated samples MP40843: FA96336-1, FA96336-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\begin{tabular}{ll} \end{tabular}$ 

(anr) Analyte not requested

#### MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA96336 Account: SGSAKA - SGS North America, Inc Project: 1222817

QC Batch ID: MP40843 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:

06/14/22

06/14/22

Metal	FA96353- Original		RPD	QC Limits	FA96353- Original		Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	1.3	3	43.3N(a)	70-130

Associated samples MP40843: FA96336-1, FA96336-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \hfill$ 

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96336 Account: SGSAKA - SGS North America, Inc Project: 1222817

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

Prep Date:

06/14/22

Metal	FA96353-1 Original		Spikelot HGFLWS1		MSD RPD	QC Limit
Mercury	0.0	1.3	3	43.3N(a)	0.0	

Associated samples MP40843: FA96336-1, FA96336-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \Box$ 

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96336

Account: SGSAKA - SGS North America, Inc Project: 1222817

QC Batch ID: MP40843 Matrix Type: AQUEOUS Methods: EPA 245.1 Units: ug/l

Prep Date:

06/14/22

BSP Spikelot QC Result HGFLWS1 % Rec Limits	
ary 3.0 3 100.0 85-115	

Associated samples MP40843: FA96336-1, FA96336-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\bar{\ }$ 

(anr) Analyte not requested

#### SERIAL DILUTION RESULTS SUMMARY

Login Number: FA96336
Account: SGSAKA - SGS North America, Inc
Project: 1222817

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/1

Prep Date: 06/14/22

Associated samples MP40843: FA96336-1, FA96336-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\bar{\ }$ 

(anr) Analyte not requested



#### **Laboratory Report of Analysis**

To: ADEC-Air & Water Quality

610 University Drive Fairbanks, AK 99709 (907)451-2141

Report Number: 1222793
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: 06/28/2022 3:18:38PM Results via Engage



#### **Case Narrative**

SGS Client: ADEC-Air & Water Quality SGS Project: 1222793 Project Name/Site: WHADA Project Contact: Morgan Brown

Refer to sample receipt form for information on sample condition.

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

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



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

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

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

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

\* The analyte has exceeded allowable regulatory or control limits.

! Surrogate out of control limits.

B Indicates the analyte is found in a blank associated with the sample.

CCV/CVA/CVB Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB Closing Continuing Calibration Verification

CL Control Limit

DF Analytical Dilution Factor

DL Detection Limit (i.e., maximum method detection limit)
E The analyte result is above the calibrated range.

GT Greater Than IB Instrument Blank

ICV Initial Calibration Verification
J The quantitation is an estimation.
LCS(D) Laboratory Control Spike (Duplicate)
LLQC/LLIQC Low Level Quantitation Check

LOD Limit of Detection (i.e., 1/2 of the LOQ)

LOQ Limit of Quantitation (i.e., reporting or practical quantitation limit)

LT Less Than MB Method Blank

MS(D) Matrix Spike (Duplicate)

ND Indicates the analyte is not detected.

RPD Relative Percent Difference
TNTC Too Numerous To Count

U Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

All DRO/RRO analyses are integrated per SOP.

Print Date: 06/28/2022 3:18:41PM

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#### Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>
WHADA-SoCr-0.05	1222793001	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WHADA-SoCr-4.5	1222793002	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WHADA-SoCr-0.05	1222793003	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)
WHADA-SoCr-4.5	1222793004	06/07/2022	06/07/2022	Water (Surface, Eff., Ground)

MethodMethod DescriptionSM 5310BDissolved Organic CarbonSM21 9223BE Coli LT2 (Colilert Quant)SM21 9222DFecal Coliform (MF)

SM21 2340B Hardness as CaCO3 by ICP-MS

EP200.8 Metals in Drinking Water by ICP-MS DISSO

EP200.8 Metals in Water by 200.8 ICP-MS SM21 4500NO3-F Nitrate/Nitrite Flow injection Pres.

SM23 4500-N D TKN by Phenate (W)
SM21 4500P-B,E Total Phosphorus (W)



# **Detectable Results Summary**

Client Sample ID: WHADA-SoCr-0.05			
Lab Sample ID: 1222793001	Parameter	Result	Units
Metals by ICP/MS	Calcium	24800	ug/L
	Hardness as CaCO3	84.6	mg/L
	Magnesium	5470	ug/L
Microbiology Laboratory	E. Coli	77	MPN/100mL
,	Fecal Coliform	44	col/100mL
Waters Department	TOC Average, Dissolved	5.08	mg/L
	Total Phosphorus	0.0944	mg/L
Client Sample ID: WHADA-SoCr-4.5	·		· ·
Lab Sample ID: 1222793002	Parameter	Result	Units
	<u>rarameter</u> Calcium	17900	ug/L
Metals by ICP/MS	Hardness as CaCO3	60.6	mg/L
		3840	· ·
Matara Danautraant	Magnesium TOC Average, Dissolved	6.06	ug/L
Waters Department	_		mg/L
	Total Phosphorus	0.0947	mg/L
Client Sample ID: WHADA-SoCr-0.05			
Lab Sample ID: 1222793003	<u>Parameter</u>	Result	<u>Units</u>
Dissolved Metals by ICP/MS	Arsenic	7.93	ug/L
	Barium	15.7	ug/L
	Calcium	24400	ug/L
	Iron	403	ug/L
	Magnesium	5380	ug/L
	Manganese	1.70	ug/L
	Potassium	2020	ug/L
	Silicon	11000	ug/L
	Sodium	7950	ug/L
	Zinc	29.1	ug/L
Client Sample ID: WHADA-SoCr-4.5			
Lab Sample ID: 1222793004	<u>Parameter</u>	Result	<u>Units</u>
Dissolved Metals by ICP/MS	Arsenic	9.81	ug/L
•	Barium	12.9	ug/L
	Calcium	18400	ug/L
	Iron	482	ug/L
	Magnesium	3920	ug/L
	Manganese	1.94	ug/L
	Potassium	1720	ug/L
	Silicon	10100	ug/L
	Sodium	4190	ug/L
			-

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Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222793001
Lab Project ID: 1222793

Collection Date: 06/07/22 10:10 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	24800	500	150	ug/L	1		06/13/22 18:36
Magnesium	5470	50.0	15.0	ug/L	1		06/13/22 18:36

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:36 Container ID: 1222793001-D Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	84.6	5.00	5.00	mg/L	1		06/13/22 18:36

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 18:36 Container ID: 1222793001-D Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222793001
Lab Project ID: 1222793

Collection Date: 06/07/22 10:10 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

#### Results by Microbiology Laboratory

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 Fecal Coliform
 44
 2.00
 2.00
 col/100mL 1
 06/07/22 17:43

#### **Batch Information**

Analytical Batch: BTF19589 Analytical Method: SM21 9222D

Analyst: M.A

Analytical Date/Time: 06/07/22 17:43 Container ID: 1222793001-A

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 E. Coli
 77
 1
 1
 MPN/100r 1
 06/07/22 15:28

#### **Batch Information**

Analytical Batch: BTF19590 Analytical Method: SM21 9223B

Analyst: M.A

Analytical Date/Time: 06/07/22 15:28 Container ID: 1222793001-B



Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222793001
Lab Project ID: 1222793

Collection Date: 06/07/22 10:10 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

#### Results by Waters Department

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	DF	<u>Limits</u>	Date Analyzed
TOC Average, Dissolved	5.08	1.00	0.400	mg/L	1		06/17/22 01:01

#### **Batch Information**

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/17/22 01:01 Container ID: 1222793001-E

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Nitrate/Nitrite-N	0.200 U	0.200	0.0500	mg/L	2		06/15/22 12:12

#### **Batch Information**

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 12:12 Container ID: 1222793001-G

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Phosphorus	0.0944	0.0400	0.0120	mg/L	1		06/24/22 17:22

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:22 Container ID: 1222793001-G

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Allowable <u>Parameter</u> Result Qual LOQ/CL DL <u>Units</u> <u>DF</u> <u>Limits</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 1 06/16/22 16:33



Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222793001
Lab Project ID: 1222793

Collection Date: 06/07/22 10:10 Received Date: 06/07/22 13:38 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 16:33 Container ID: 1222793001-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



Client Sample ID: WHADA-SoCr-4.5

Client Project ID: **WHADA**Lab Sample ID: 1222793002
Lab Project ID: 1222793

Collection Date: 06/07/22 09:15 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

#### Results by Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Calcium	17900	500	150	ug/L	1		06/13/22 18:44
Magnesium	3840	50.0	15.0	ug/L	1		06/13/22 18:44

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:44 Container ID: 1222793002-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Hardness as CaCO3	60.6	5.00	5.00	mg/L	1		06/13/22 18:44

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: SM21 2340B

Analyst: DMM

Analytical Date/Time: 06/13/22 18:44 Container ID: 1222793002-B Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: WHADA-SoCr-4.5

Client Project ID: **WHADA**Lab Sample ID: 1222793002
Lab Project ID: 1222793

Collection Date: 06/07/22 09:15 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

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Solids (%): Location:

### Results by Waters Department

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
TOC Average, Dissolved	6.06	1.00	0.400	mg/L	1		06/17/22 01:14

#### **Batch Information**

Analytical Batch: WTC3201 Analytical Method: SM 5310B

Analyst: EBH

Analytical Date/Time: 06/17/22 01:14 Container ID: 1222793002-C

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Nitrate/Nitrite-N	0.200 U	0.200	0.0500	mg/L	2		06/15/22 12:13

#### **Batch Information**

Analytical Batch: WFI2992

Analytical Method: SM21 4500NO3-F

Analyst: EBH

Analytical Date/Time: 06/15/22 12:13 Container ID: 1222793002-E

						<u>Allowable</u>	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Total Phosphorus	0.0947	0.0400	0.0120	mg/L	1		06/24/22 17:23

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E

Analyst: DMM

Analytical Date/Time: 06/24/22 17:23 Container ID: 1222793002-E Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/22 15:09 Prep Initial Wt./Vol.: 25 mL

Prep Extract Vol: 25 mL

Allowable LOQ/CL **Parameter** Result Qual DL <u>Units</u> <u>DF</u> <u>Limits</u> **Date Analyzed** Total Kjeldahl Nitrogen 1.00 U 1.00 0.310 mg/L 1 06/16/22 16:34



Client Sample ID: WHADA-SoCr-4.5

Client Project ID: **WHADA**Lab Sample ID: 1222793002
Lab Project ID: 1222793

Collection Date: 06/07/22 09:15 Received Date: 06/07/22 13:38 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 16:34 Container ID: 1222793002-E 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: 1222793003
Lab Project ID: 1222793

Collection Date: 06/07/22 10:10 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

## Results by Dissolved Metals by ICP/MS

						<u>Allowable</u>	
<u>Parameter</u>	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 18:47
Antimony	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:47
Arsenic	7.93	5.00	1.50	ug/L	1		06/13/22 18:47
Barium	15.7	3.00	0.940	ug/L	1		06/13/22 18:47
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 18:47
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 18:47
Calcium	24400	500	150	ug/L	1		06/13/22 18:47
Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 18:47
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 18:47
Copper	3.00 U	3.00	1.00	ug/L	1		06/13/22 18:47
Iron	403	250	78.0	ug/L	1		06/13/22 18:47
Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 18:47
Magnesium	5380	50.0	15.0	ug/L	1		06/13/22 18:47
Manganese	1.70	1.00	0.350	ug/L	1		06/13/22 18:47
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:47
Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:47
Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 18:47
Potassium	2020	500	150	ug/L	1		06/13/22 18:47
Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 18:47
Silicon	11000	1000	310	ug/L	1		06/13/22 18:47
Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:47
Sodium	7950	500	150	ug/L	1		06/13/22 18:47
Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:47
Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:47
Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 18:47
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 18:47
Zinc	29.1	10.0	3.10	ug/L	1		06/13/22 18:47
				-			

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:47 Container ID: 1222793003-A Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Client Sample ID: WHADA-SoCr-4.5

Client Project ID: **WHADA**Lab Sample ID: 1222793004
Lab Project ID: 1222793

Collection Date: 06/07/22 09:15 Received Date: 06/07/22 13:38 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

## Results by Dissolved Metals by ICP/MS

						Allowable	
<u>Parameter</u>	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	Limits	Date Analyzed
Aluminum	20.0 U	20.0	6.20	ug/L	1		06/13/22 18:49
Antimony	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:49
Arsenic	9.81	5.00	1.50	ug/L	1		06/13/22 18:49
Barium	12.9	3.00	0.940	ug/L	1		06/13/22 18:49
Beryllium	0.400 U	0.400	0.130	ug/L	1		06/13/22 18:49
Cadmium	0.500 U	0.500	0.150	ug/L	1		06/13/22 18:49
Calcium	18400	500	150	ug/L	1		06/13/22 18:49
Chromium	5.00 U	5.00	2.50	ug/L	1		06/13/22 18:49
Cobalt	4.00 U	4.00	1.20	ug/L	1		06/13/22 18:49
Copper	3.00 U	3.00	1.00	ug/L	1		06/13/22 18:49
Iron	482	250	78.0	ug/L	1		06/13/22 18:49
Lead	2.00 U	2.00	0.500	ug/L	1		06/13/22 18:49
Magnesium	3920	50.0	15.0	ug/L	1		06/13/22 18:49
Manganese	1.94	1.00	0.350	ug/L	1		06/13/22 18:49
Molybdenum	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:49
Nickel	2.00 U	2.00	0.620	ug/L	1		06/13/22 18:49
Phosphorus	200 U	200	62.0	ug/L	1		06/13/22 18:49
Potassium	1720	500	150	ug/L	1		06/13/22 18:49
Selenium	5.00 U	5.00	1.50	ug/L	1		06/13/22 18:49
Silicon	10100	1000	310	ug/L	1		06/13/22 18:49
Silver	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:49
Sodium	4190	500	150	ug/L	1		06/13/22 18:49
Thallium	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:49
Tin	1.00 U	1.00	0.310	ug/L	1		06/13/22 18:49
Titanium	6.25 U	6.25	3.13	ug/L	1		06/13/22 18:49
Vanadium	20.0 U	20.0	6.20	ug/L	1		06/13/22 18:49
Zinc	10.0 U	10.0	3.10	ug/L	1		06/13/22 18:49

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Analyst: DMM

Analytical Date/Time: 06/13/22 18:49 Container ID: 1222793004-A Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 06/13/22 12:27 Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



Blank ID: MB for HBN 1837344 [BTF/19589]

Blank Lab ID: 1667034

QC for Samples: 1222793001

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 9222D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Fecal Coliform
 1.00U
 1.00
 1.00
 col/100mL

#### **Batch Information**

Analytical Batch: BTF19589 Analytical Method: SM21 9222D

Instrument: Analyst: M.A

Analytical Date/Time: 6/7/2022 5:43:00PM



Blank ID: MB for HBN 1837345 [BTF/19590]

Blank Lab ID: 1667036

QC for Samples: 1222793001

Matrix: Water (Surface, Eff., Ground)

# Results by SM21 9223B

 Parameter
 Results
 LOQ/CL
 DL
 Units

 E. Coli
 1U
 1
 1
 MPN/100ml

#### **Batch Information**

Analytical Batch: BTF19590 Analytical Method: SM21 9223B

Instrument: Analyst: M.A

Analytical Date/Time: 6/7/2022 2:28:00PM



Blank ID: MB for HBN 1837763 [MXX/35159]

Blank Lab ID: 1667664

QC for Samples:

1222793001, 1222793002, 1222793003, 1222793004

Matrix: Water (Surface, Eff., Ground)

#### Results by EP200.8

<u>Parameter</u>	<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: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:39:36PM

Prep Batch: MXX35159 Prep Method: E200.2

Prep Date/Time: 6/13/2022 12:27:49PM

Prep Initial Wt./Vol.: 20 mL Prep Extract Vol: 50 mL



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222793 [MXX35159]

Blank Spike Lab ID: 1667665 Date Analyzed: 06/13/2022 17:42

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002, 1222793003, 1222793004

#### Results by EP200.8

		Blank Spike	e (ug/L)	
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>CL</u>
Aluminum	1000	990	99	(85-115)
Antimony	1000	1040	104	(85-115)
Arsenic	1000	987	99	( 85-115 )
Barium	1000	1000	100	(85-115)
Beryllium	100	97.6	98	( 85-115 )
Cadmium	100	101	101	(85-115)
Calcium	10000	10400	104	(85-115)
Chromium	400	413	103	( 85-115 )
Cobalt	500	515	103	(85-115)
Copper	1000	1030	103	(85-115)
Iron	5000	5130	103	(85-115)
Lead	1000	1070	107	(85-115)
Magnesium	10000	9930	99	(85-115)
Manganese	500	517	103	(85-115)
Molybdenum	400	386	97	(85-115)
Nickel	1000	1030	103	(85-115)
Phosphorus	500	512	102	(85-115)
Potassium	10000	10300	103	(85-115)
Selenium	1000	999	100	(85-115)
Silicon	10000	10100	101	(85-115)
Silver	100	102	102	(85-115)
Sodium	10000	9800	98	( 85-115 )
Thallium	10	10.3	103	(85-115)
Tin	100	101	101	(85-115)
Titanium	100	102	102	(85-115)
Vanadium	200	210	105	(85-115)
Zinc	1000	1020	102	(85-115)

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8

Instrument: **P7 Agilent 7800**Analyst: **DMM** 

Prep Batch: MXX35159
Prep Method: E200.2

Prep Date/Time: 06/13/2022 12:27

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/28/2022 3:18:56PM

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



#### **Matrix Spike Summary**

Original Sample ID: 1667670 MS Sample ID: 1667671 MS

MSD Sample ID:

Analysis Date: 06/13/2022 17:47 Analysis Date: 06/13/2022 17:50

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002, 1222793003, 1222793004

#### Results by EP200.8

		Ma	trix Spike (	(ug/L)	Spike	e Duplicat	e (ug/L)			`
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	8.67J	1000	997	99				70-130		
Antimony	0.500U	1000	1040	104				70-130		
Arsenic	2.50U	1000	995	100				70-130		
Barium	10.1	1000	1000	99				70-130		
Beryllium	0.200U	100	99.6	100				70-130		
Cadmium	0.250U	100	101	101				70-130		
Calcium	31800	10000	42000	103				70-130		
Chromium	2.50U	400	396	99				70-130		
Cobalt	2.00U	500	507	101				70-130		
Copper	1.16J	1000	1020	102				70-130		
Iron	107J	5000	5220	102				70-130		
Lead	1.00U	1000	1040	104				70-130		
Magnesium	4490	10000	14400	99				70-130		
Manganese	0.899J	500	512	102				70-130		
Molybdenum	0.895J	400	388	97				70-130		
Nickel	1.00U	1000	1010	101				70-130		
Phosphorus	100U	500	513	103				70-130		
Potassium	872	10000	11100	102				70-130		
Selenium	2.50U	1000	1020	102				70-130		
Silicon	5260	10000	15200	99				70-130		
Silver	0.500U	100	99.7	100				70-130		
Sodium	4220	10000	14100	99				70-130		
Thallium	0.500U	10.0	9.99	100				70-130		
Tin	0.500U	100	101	101				70-130		
Titanium	12.5U	100	103	103				70-130		
Vanadium	10.0U	200	197	98				70-130		
Zinc	55.2	1000	1070	102				70-130		

#### **Batch Information**

Analytical Batch: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:50:23PM

Prep Batch: MXX35159

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/13/2022 12:27:49PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL



#### **Matrix Spike Summary**

Original Sample ID: 1667672 MS Sample ID: 1667673 MS

MSD Sample ID:

Analysis Date: 06/13/2022 17:53 Analysis Date: 06/13/2022 17:55

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002, 1222793003, 1222793004

#### Results by EP200.8

		Ma	trix Spike (	ug/L)	Spike	e Duplicate	e (ug/L)			
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Aluminum	10.0U	1000	1000	100				70-130		
Antimony	0.420J	1000	1040	104				70-130		
Arsenic	2.50U	1000	991	99				70-130		
Barium	12.5	1000	998	99				70-130		
Beryllium	0.200U	100	99.4	99				70-130		
Cadmium	0.250U	100	101	101				70-130		
Calcium	41800	10000	51800	99				70-130		
Chromium	2.50U	400	398	99				70-130		
Cobalt	2.00U	500	503	101				70-130		
Copper	21.5	1000	1030	101				70-130		
Iron	168J	5000	5210	101				70-130		
Lead	1.00U	1000	1050	105				70-130		
Magnesium	7360	10000	17300	100				70-130		
Manganese	16.4	500	521	101				70-130		
Molybdenum	4.89	400	398	98				70-130		
Nickel	1.11J	1000	1000	100				70-130		
Phosphorus	100U	500	515	103				70-130		
Potassium	672	10000	11000	103				70-130		
Selenium	2.50U	1000	1020	102				70-130		
Silicon	4830	10000	14900	101				70-130		
Silver	0.500U	100	101	101				70-130		
Sodium	4000	10000	13900	99				70-130		
Thallium	0.500U	10.0	10	100				70-130		
Tin	0.410J	100	102	101				70-130		
Titanium	12.5U	100	102	102				70-130		
Vanadium	10.0U	200	199	99				70-130		
Zinc	82.7	1000	1100	101				70-130		

# Batch Information

Analytical Batch: MMS11579 Analytical Method: EP200.8 Instrument: P7 Agilent 7800

Analyst: DMM

Analytical Date/Time: 6/13/2022 5:55:45PM

Prep Batch: MXX35159

Prep Method: DW Digest for Metals on ICP-MS Prep Date/Time: 6/13/2022 12:27:49PM

Prep Initial Wt./Vol.: 20.00mL Prep Extract Vol: 50.00mL



Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668185

QC for Samples:

1222793001, 1222793002

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 4500NO3-F

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

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:29:31PM



#### Method Blank

Blank ID: MB for HBN 1837859 (WFI/2992)

Blank Lab ID: 1668194

QC for Samples:

1222793001, 1222793002

Matrix: Water (Surface, Eff., Ground)

#### Results by SM21 4500NO3-F

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

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:33:30AM

Print Date: 06/28/2022 3:19:02PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222793 [WFI2992]

Blank Spike Lab ID: 1668187 Date Analyzed: 06/15/2022 12:27

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002

#### Results by SM21 4500NO3-F

Blank Spike (mg/L)								
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>CL</u>				
Nitrate-N	2.5	2.42	97	(70-130)				
Nitrite-N	2.5	2.50	100	(90-110)				
Total Nitrate/Nitrite-N	5	4.92	98	(90-110)				

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: **EBH** 

Print Date: 06/28/2022 3:19:04PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222793 [WFI2992]

Blank Spike Lab ID: 1668196 Date Analyzed: 06/15/2022 11:31

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002

#### Results by SM21 4500NO3-F

валк бріке (mg/L)								
<u>Parameter</u>	Spike	Result	Rec (%)	CL				
Nitrate-N	2.5	2.29	91	(70-130)				
Nitrite-N	2.5	2.26	90	(90-110)				
Total Nitrate/Nitrite-N	5	4.54	91	(90-110)				

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Print Date: 06/28/2022 3:19:04PM



#### **Matrix Spike Summary**

Original Sample ID: 1668169 MS Sample ID: 1668173 MS MSD Sample ID: 1668174 MSD Analysis Date: 06/15/2022 11:38 Analysis Date: 06/15/2022 11:40 Analysis Date: 06/15/2022 11:42

Matrix: Drinking Water

QC for Samples: 1222793001, 1222793002

#### Results by SM21 4500NO3-F

		Matrix Spike (mg/L)		Spike Duplicate (mg/L)						
<u>Parameter</u>	<u>Sample</u>	Spike	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	4.15	2.50	7.07	117	2.50	6.72	103	70-130	5.10	(< 25)
Nitrite-N	0.0522J	2.50	2.4	94	2.50	2.39	93	90-110	0.50	(< 25)

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 11:40:30AM

Print Date: 06/28/2022 3:19:06PM



#### **Matrix Spike Summary**

Original Sample ID: 1222827001 MS Sample ID: 1668209 MS MSD Sample ID: 1668210 MSD Analysis Date: 06/15/2022 12:33 Analysis Date: 06/15/2022 12:34 Analysis Date: 06/15/2022 12:36

Matrix: Drinking Water

QC for Samples: 1222793001, 1222793002

#### Results by SM21 4500NO3-F

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) CL RPD (%) RPD CL Total Nitrate/Nitrite-N 0.200U 5.00 5.33 107 5.00 5.19 104 90-110 2.70 (< 25)

#### **Batch Information**

Analytical Batch: WFI2992

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

Analyst: EBH

Analytical Date/Time: 6/15/2022 12:34:00PM

Print Date: 06/28/2022 3:19:06PM



#### **Method Blank**

Blank ID: MB for HBN 1837996 [WXX/14242]

Blank Lab ID: 1668425

QC for Samples:

1222793001, 1222793002

Matrix: Water (Surface, Eff., Ground)

#### Results by SM23 4500-N D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Kjeldahl Nitrogen
 0.500U
 1.00
 0.310
 mg/L

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D

Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/16/2022 3:59:46PM

Prep Batch: WXX14242 Prep Method: METHOD

Prep Date/Time: 6/14/2022 1:50:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Print Date: 06/28/2022 3:19:11PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222793 [WXX14242]

Blank Spike Lab ID: 1668426 Date Analyzed: 06/16/2022 16:01 Spike Duplicate ID: LCSD for HBN 1222793

[WXX14242]

Spike Duplicate Lab ID: 1668427 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002

#### Results by SM23 4500-N D

		Blank Spike (mg/L)			Spike Dupli	cate (mg/L)			
<u>Parameter</u>	<u>Spike</u>	Result	Rec (%)	<u>Spike</u>	Result	Rec (%)	<u>CL</u>	RPD (%)	RPD CL
Total Kieldahl Nitrogen	4	3.64	91	4	3.96	99	(75-125)	8.40	(< 25)

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14242
Prep Method: METHOD

Prep Date/Time: 06/14/2022 13:50

Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 06/28/2022 3:19:13PM



#### **Matrix Spike Summary**

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

QC for Samples: 1222793001, 1222793002

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)

#### Results by SM23 4500-N D

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) RPD (%) RPD CL CL 0.500U Total Kjeldahl Nitrogen 4.00 4.14 104 4.00 4.28 107 75-125 3.20 (< 25)

#### **Batch Information**

Analytical Batch: WDA5218 Analytical Method: SM23 4500-N D Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/16/2022 4:05:01PM

Prep Batch: WXX14242

Prep Method: Distillation TKN by Phenate (W) Prep Date/Time: 6/14/2022 1:50:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL

Print Date: 06/28/2022 3:19:14PM



#### **Method Blank**

Blank ID: MB for HBN 1838894 [WXX/14256]

Blank Lab ID: 1670166

QC for Samples:

1222793001, 1222793002

Matrix: Water (Surface, Eff., Ground)

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

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Total Phosphorus
 0.0200U
 0.0400
 0.0120
 mg/L

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 4:56:58PM

Prep Batch: WXX14256
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL

Print Date: 06/28/2022 3:19:16PM



#### **Blank Spike Summary**

Blank Spike ID: LCS for HBN 1222793 [WXX14256]

Blank Spike Lab ID: 1670167 Date Analyzed: 06/24/2022 16:57 Spike Duplicate ID: LCSD for HBN 1222793

[WXX14256]

Spike Duplicate Lab ID: 1670168 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1222793001, 1222793002

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

Blank Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> Spike Result Rec (%) Spike Rec (%) RPD (%) RPD CL Result **Total Phosphorus** 0.205 102 0.2 0.204 102 (< 25)0.2 (75-125)0.44

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Prep Batch: WXX14256 Prep Method: SM21 4500P-B,E Prep Date/Time: 06/23/2022 15:09

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: 06/28/2022 3:19:18PM



#### **Matrix Spike Summary**

Original Sample ID: 1222761001 MS Sample ID: 1670175 MS MSD Sample ID: 1670176 MSD

QC for Samples: 1222793001, 1222793002

Analysis Date: 06/24/2022 17:15 Analysis Date: 06/24/2022 17:16 Analysis Date: 06/24/2022 17:17 Matrix: Water (Surface, Eff., Ground)

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

Matrix Spike (mg/L) Spike Duplicate (mg/L)

<u>Parameter</u> <u>Sample</u> Spike Result Rec (%) Spike Result Rec (%) RPD (%) RPD CL CL **Total Phosphorus** 0.0679 0.200 .272 102 0.200 0.276 104 75-125 1.30 (< 25)

#### **Batch Information**

Analytical Batch: WDA5225 Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 6/24/2022 5:16:32PM

Prep Batch: WXX14256

Prep Method: Total Phosphorus (W) Ext. Prep Date/Time: 6/23/2022 3:09:00PM

Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL

Print Date: 06/28/2022 3:19:19PM



# 1222793

#### SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD

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Ī			<sup>o.</sup> Morgan Brown		n.Brown@a	alaska.gov	N T	Comp Grab		E. Coli	al Hg	Metals	rdness	) Filter)	NO2				
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ıt SA			SAMPLE IDENTIFICATION	DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D I	SM92223B	245.	200.8 D (Lab Fil		5301B [					REMARKS/ LOC ID
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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: 5/26/2022

Reason for Analytical requests

Clarification:

Notes: |E. coli = LT2 Quantitray

200.8 Dissolved Metals = 200.8 Dissolved Metals Scan (needs Lab Filter, then preservation. Should be on separate sample.)

DOC also needs Lab Filter then preservation

T-Phos, NO2NO3, TKN = 4500 Total Phosphorus, 4500 Total Nitrate+Nitrite-N, and 4500 TKN

### **AIRBILL 9973777**

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

Signed..... Date ..... **Grant Aviation** 

6420 Kulis Dr. Anchorage, AK 99502

Phone: 1 (888) 359-4726 § Freephone: 1 (888) 359-4726

Email: res@flygrant.com

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

#### FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: SGS

Sender: Sarah Apsens

907-550-3217//907-562-2324

907-741-1026

Flight Departs: Jun 7 22 11:40 AM

Accepted: Tue, Jun 7 22 10:52:00 AM

Description & Comment	Quan	Wgt.	Handle Fee	Hazmat Fee	Total
Water Samples	1	12	-	-	\$28.24
	***			Total Tax:	\$1.76
			Total Pa	yments made:	\$30.00
Received in good condition by:			To	otal Unpaid:	\$0.00

#### **CUSTOMER COPY**

#### **AIRBILL 9973777**

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

Signed.....

**Grant Aviation** 

6420 Kulis Dr. Anchorage, AK 99502

Phone: 1 (888) 359-4726 Freephone: 1 (888) 359-4726

Email: res@flygrant.com

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



#### FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: SGS 907-550-3217//907-562-2324 Sender: Sarah Apsens

Date .....

907-741-1026

Flight Departs: Jun 7 22 11:40 AM

Accepted: Tue, Jun 7 22 10:52:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Water Samples	1	12	-	- [	\$28.24
TAX: Federal Excise Tax					\$1.76
			Total Pa	yments made:	\$30.00
			To	otal Unpaid:	\$0.00

#### **TERMS AND CONDITIONS**

Consignemnt Note Text

## Alert Expeditors Inc.

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

Date	(1))				
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То	-				
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e-Sample Receipt Form

SGS Workorder #: 1222793 1222793

Review Criteria	Condition (Yes,	No, N/A	Exceptions Noted below
Chain of Custody / Temperature Requirements		Note: Te	emperature and COC seal information is found on the chain of custody form
DOD only: Did all sample coolers have a corresponding C	OC? N/A		
If <0°C, were sample containers ice	free? N/A		
Note containers received	d with ice:		
Identify any containers received at non-compliant tem (Use form FS-0029 if more space is	s needed)		
lolding Time / Documentation / Sample Condition Requ		Note: Re	fer to form F-083 "Sample Guide" for specific holding times and sample containers.
Were samples received within analytical holding t			
Do sample labels match COC? Record discrepan	icies. Yes		
Note: If information on containers differs from COC, default t	o COC		
information for login. If times differ <1hr, record details & login p	per COC.		
Were analytical requests c	lear? Yes		
(i.e. method is specified for analyses with multiple option for me		ı	
(Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)			
Were proper containers (type/mass/volume/preservative)us	sed? Yes		
Note: Exemption for metals analysis by 200.8/6020 in wat	ter.		
Volatile Analysis Requirements (VOC, GRO, LL-Hg,	etc.)		
Vere all soil VOAs received with a corresponding % solids conta			
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samp	oles? N/A		
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6r	nm)? <b>N/A</b>		
Were all soil VOAs field extracted with Methanol+E	BFB? N/A		
Note to Client: Any "No", answer above indicates non-ce	ompliance	with s	tandard procedures and may impact data quality.
Additional n	otes (if a	pplic	able):

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#### **Sample Containers and Preservatives**

Container Id	<u>Preservative</u>	Container Condition	Container Id	<u>Preservative</u>	Container Condition
1222793001-A	Na2S2O3 for Chlorine Redu	ОК			
1222793001-B	Na2S2O3 for Chlorine Redu	OK			
1222793001-C	HNO3 to pH $< 2$	OK			
1222793001-D	HNO3 to pH $< 2$	ОК			
1222793001-E	No Preservative Required	OK			
1222793001-F	HCL to pH < 2	OK			
1222793001-G	H2SO4 to pH < 2	OK			
1222793002-A	HNO3 to pH $< 2$	OK			
1222793002-В	HNO3 to pH $< 2$	OK			
1222793002-C	No Preservative Required	OK			
1222793002-D	HCL to pH < 2	OK			
1222793002-E	H2SO4 to pH < 2	OK			
1222793003-A	No Preservative Required	OK			
1222793003-B	HNO3 to pH < 2	OK			
1222793004-A	No Preservative Required	OK			
1222793004-B	HNO3 to pH < 2	OK			

#### **Container Condition Glossary**

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

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



Orlando, FL 06/15/22

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

e-Hardcopy 2.0 **Automated Report** 



SGS North America, Inc

1222793

SGS Job Number: FA96337

Sampling Date: 06/07/22

#### Report to:

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

ATTN: Julie Shumway

Total number of pages in report: 17

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

Norm Farmer **Technical Director** 

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

EHS.US.CustomerCare@sgs.com

SGS North America Inc. • 4405 Vineland Road • Suite C-15 • Orlando, FL 32811 • tel: 407-425-6700 • fax: SGS is the sole authority for authorizing edits or modifications to this document. Please share your ideas about how we can serve you better at:

## **Sections:**

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## **Sample Summary**

SGS North America, Inc

1222793

**Job No:** FA96337

Sample	Collected			Matr	ix	Client
Number	Date	Time By	Received	Code	Type	Sample ID
FA96337-1	06/07/22	10:10	06/09/22	AQ	Water	WHADA-SOCR-0.05
FA96337-2	06/07/22	09:15	06/09/22	AQ	Water	WHADA-SOCR-4.5

#### SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc Job No: FA96337

Site: 1222793 Report Date: 6/15/2022 3:52:45 PM

On 06/09/2022, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA96337 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: MP40843

Sample(s) FA96353-1DUP, FA96353-1MSD, FA96353-1SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Mercury are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recovery(s) for Mercury are outside control limits. Probable cause is due to matrix interference.

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 Serv	ices (Signature on File)

W

**Summary of Hits Job Number:** FA96337

Account: SGS North America, Inc

**Project:** 1222793 **Collected:** 06/07/22

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

FA96337-1 WHADA-SOCR-0.05

No hits reported in this sample.

FA96337-2 WHADA-SOCR-4.5

No hits reported in this sample.



## Orlando, FL

## Section 4

Sample Results	
Report of Analysis	

#### Page 1 of 1

## **Report of Analysis**

Client Sample ID: WHADA-SOCR-0.05

 Lab Sample ID:
 FA96337-1
 Date Sampled:
 06/07/22

 Matrix:
 AQ - Water
 Date Received:
 06/09/22

 Percent Solids:
 n/a

**Project:** 1222793

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 JC	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

(1) Instrument QC Batch: MA18744(2) Prep QC Batch: MP40843



## Report of Analysis

Client Sample ID: WHADA-SOCR-4.5

 Lab Sample ID:
 FA96337-2
 Date Sampled:
 06/07/22

 Matrix:
 AQ - Water
 Date Received:
 06/09/22

 Percent Solids:
 n/a

**Project:** 1222793

#### **Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	<b>Prep Method</b>
Mercury	< 0.50	0.50	ug/l	1	06/14/22	06/14/22 јс	EPA 245.1 <sup>1</sup>	EPA 245.1 <sup>2</sup>

(1) Instrument QC Batch: MA18744(2) Prep QC Batch: MP40843



## Misc. Forms

Orlando, FL

**Custody Documents and Other Forms** 

Includes the following where applicable:

• Chain of Custody



## **CHAIN OF CUSTODY RECORD**



Locations Nationwide

Alaska

Texas Virginia

New Jersey

Colorado North Carolina Louisiana

www.us.sgs.com

CLIENT:	SGS North Ame	erica Inc Alas	ka Division		SGS	S Refere	nce:			S	GS	Orla	ndo, FL		Page 1 of 1
CONTACT:	Julie Shumway	PHONE NO:	(907) 56	2-2343	Addi	tional	Comn	ents	: All	soils	repo	rt out	t in dry weigh	t unless	
PROJECT NAME:	1222793	PWSID#: NPDL#:			# C	Preserve ative Used:	YMO3								
REPORTS TO	: Julie Shumway		Julie.Shumwa RefLabTeam(		0 N T	C = COMP	Total								
	SGS - Alaska ka.accounting@sgs.com	QUOTE #: P.O. #:	1222	793	A I N	G = GRAB MI = Multi	245.1, To								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	E R S	Incre- mental Soils	Mercury				мѕ	MSD	SGS lab #		Location ID
	WHADA-SoCr-0.05	06/07/2022	10:10:00	Water	1		Х						1222793001		
	WHADA-SoCr-4.5	06/07/2022	09:15:00	Water	1		Х						1222793002		11
													MITIAL ASSESS	MENT	
													- REI VERIFIC	ATION	n
Relinguished	By: (1)	Date	Time	Received	By:				DOD I	Projec	t?		NO	Data Delive	rable Requirements:
11	humeray	4/8/2	2 09/8		•				Repor	t to D	L (J FI	ags)? /LOQ.	NO		Level 2
Relinquished	By: (2)	6/9/22	Time F5 Go	Received	By:	teg	?		Coole		ted T	urnar	ound Time ar	nd-or Spec	cial Instructions:
Relinquished	Ву: (3)	Date	Time	Received	Ву:				Temp	Blank	°C:/	3.7		Chain of C	ustody Seal: (Circle)
Relinquished	By: (4)	Date	Time	Received	For La	borator	у Ву:				or A	mbien	t [ ]	INTACT	BROKEN ABSENT

<sup>[</sup>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

FA96337: Chain of Custody Page 1 of 2

## 5.1

## **SGS Sample Receipt Summary**

Job Number: FA9	6337	Client:	SGS NORTH AM	MERICA INC - ALASKA DIV	Project: 1222793			
Date / Time Received: 6/9/2	2022 3:00:00 PN	1	Delivery Method	d: FED EX	Airbill #'s: 1483 4802	2 3365		
Therm ID: IR 1;			Therm CF: 0.4;		# of Coole	rs: 1		
Cooler Temps (Raw Meas	sured) °C: Coo	ler 1: (3.8	);					
Cooler Temps (Corr	ected) °C: Coo	ler 1: (4.2	);					
Cooler Information	Y or	N_		Sample Information		Y or	N_	N/A
Custody Seals Present	<b>✓</b>			Sample labels present	on bottles	<b>✓</b>		
Custody Seals Intact	$\checkmark$			Samples preserved pre	operly	✓		
3. Temp criteria achieved	$\checkmark$			3. Sufficient volume/conta	ainers recvd for analysis:	<b>✓</b>		
4. Cooler temp verification	IR Gun			4. Condition of sample		<u>Intact</u>		
5. Cooler media	Ice (Bag)			5. Sample recvd within H	Т	✓		
				6. Dates/Times/IDs on C	OC match Sample Label	✓		
Trip Blank Information	Y or	<u>N</u> _	N/A	<ol><li>VOCs have headspace</li></ol>	е			$\checkmark$
1. Trip Blank present / cooler			$\checkmark$	8. Bottles received for un	specified tests		$\checkmark$	
2. Trip Blank listed on COC			✓	Compositing instruction				$\checkmark$
	W or	s	N/A	10. Voa Soil Kits/Jars red	•			$\checkmark$
3. Type Of TB Received			<u> </u>	11. % Solids Jar received				<b>~</b>
				12. Residual Chlorine Pre	esent?			✓
Misc. Information								
Number of Encores: 25-	Gram	5-Gram	N	umber of 5035 Field Kits:	Number of La	ab Filtered N	Metals:	
Test Strip Lot #s:				pH 10-12 219813A			_	
Residual Chlorine Test Stri					_			
Comments								
SM001 Rev. Date 05/24/17 Techi	nician: TORYW		Date: 6/9/202	2 3:00:00 PM	Reviewer:		Date:	

FA96337: 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: FA96337 Account: SGSAKA - SGS North America, Inc Project: 1222793

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

Prep Date:

06/14/22

Associated samples MP40843: FA96337-1, FA96337-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\begin{tabular}{ll} \end{tabular}$ 

(anr) Analyte not requested

#### MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA96337 Account: SGSAKA - SGS North America, Inc Project: 1222793

QC Batch ID: MP40843

Prep Date:

Methods: EPA 245.1

06/14/22

Matrix Type: AQUEOUS

Units: ug/l

Metal	FA96353- Original		RPD	QC Limits	FA96353- Original		Spikelot HGFLWS1		QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	1.3	3	43.3N(a)	70-130

Associated samples MP40843: FA96337-1, FA96337-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \hfill$ 

06/14/22

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96337 Account: SGSAKA - SGS North America, Inc Project: 1222793

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/l

Prep Date:

06/14/22

Metal	FA96353-1 Original MSD	Spikelot HGFLWS1 % Rec
Mercury	0.0 1.3	3 43.3N(a)

Associated samples MP40843: FA96337-1, FA96337-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\hfill \hfill$ 

- (N) Matrix Spike Rec. outside of QC limits  $\,$
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

Login Number: FA96337 Account: SGSAKA - SGS North America, Inc Project: 1222793

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/1

Prep Date: 06/14/22

Metal	BSP Result	Spikelot HGFLWS1		QC Limits
ercury	3.0	3	100.0	85-115

Associated samples MP40843: FA96337-1, FA96337-2

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

#### SERIAL DILUTION RESULTS SUMMARY

Login Number: FA96337 Account: SGSAKA - SGS North America, Inc Project: 1222793

QC Batch ID: MP40843 Methods: EPA 245.1 Matrix Type: AQUEOUS Units: ug/1

Prep Date: 06/14/22

Associated samples MP40843: FA96337-1, FA96337-2

Results < IDL are shown as zero for calculation purposes (\*) Outside of QC limits  $\bar{\ }$ 

(anr) Analyte not requested



#### **Laboratory Report of Analysis**

To: ADEC-Air & Water Quality

610 University Drive Fairbanks, AK 99709 (907)451-2141

Report Number: 1222926
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: 06/14/2022 3:29:47PM Results via Engage



#### **Case Narrative**

SGS Client: ADEC-Air & Water Quality SGS Project: 1222926 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: 06/14/2022 3:29:49PM



#### **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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a>. 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.

B Indicates the analyte is found in a blank associated with the sample.

CCV/CVA/CVB Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB Closing Continuing Calibration Verification

CL Control Limit

DF Analytical Dilution Factor

DL Detection Limit (i.e., maximum method detection limit)
E The analyte result is above the calibrated range.

GT Greater Than
IB Instrument Blank

ICV Initial Calibration Verification
J The quantitation is an estimation.
LCS(D) Laboratory Control Spike (Duplicate)
LLQC/LLIQC Low Level Quantitation Check

LOD Limit of Detection (i.e., 1/2 of the LOQ)

LOQ Limit of Quantitation (i.e., reporting or practical quantitation limit)

LT Less Than MB Method Blank

MS(D) Matrix Spike (Duplicate)

ND Indicates the analyte is not detected.

RPD Relative Percent Difference
TNTC Too Numerous To Count

U Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

All DRO/RRO analyses are integrated per SOP.

Print Date: 06/14/2022 3:29:50PM

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



#### **Sample Summary**

<u>Client Sample ID</u> <u>Lab Sample ID</u> <u>Collected</u> <u>Received</u> <u>Matrix</u>

WHADA-SoCr-0.05 1222926001 06/09/2022 06/09/2022 Water (Surface, Eff., Ground)

Method Description

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

Print Date: 06/14/2022 3:29:51PM



#### **Detectable Results Summary**

Client Sample ID: WHADA-SoCr-0.05

Lab Sample ID: 1222926001

Microbiology Laboratory

Parameter
E. Coli
Fecal Coliform

Result 32 13 Units MPN/100mL col/100mL

Print Date: 06/14/2022 3:29:53PM

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 WHADA-SoCr-0.05

Client Sample ID: WHADA-SoCr-0.05

Client Project ID: **WHADA**Lab Sample ID: 1222926001
Lab Project ID: 1222926

Collection Date: 06/09/22 10:10 Received Date: 06/09/22 16:02 Matrix: Water (Surface, Eff., Ground)

Solids (%): Location:

#### Results by Microbiology Laboratory

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 Fecal Coliform
 13
 1.67
 1.67
 col/100mL 1
 06/09/22 17:48

#### **Batch Information**

Analytical Batch: BTF19595 Analytical Method: SM21 9222D

Analyst: M.A

Analytical Date/Time: 06/09/22 17:48 Container ID: 1222926001-A

 Parameter
 Result Qual
 LOQ/CL
 DL
 Units
 DF
 Limits
 Date Analyzed

 E. Coli
 32
 1
 1
 MPN/100r1
 06/09/22 14:44

#### **Batch Information**

Analytical Batch: BTF19594 Analytical Method: SM21 9223B

Analyst: M.A

Analytical Date/Time: 06/09/22 14:44 Container ID: 1222926001-B

Print Date: 06/14/2022 3:29:54PM



#### Method Blank

Blank ID: MB for HBN 1837540 [BTF/19594]

Blank Lab ID: 1667415

QC for Samples: 1222926001

Matrix: Water (Surface, Eff., Ground)

#### Results by SM21 9223B

 Parameter
 Results
 LOQ/CL
 DL
 Units

 E. Coli
 1U
 1
 1
 MPN/100ml

#### **Batch Information**

Analytical Batch: BTF19594 Analytical Method: SM21 9223B

Instrument: Analyst: M.A

Analytical Date/Time: 6/9/2022 2:44:00PM

Print Date: 06/14/2022 3:29:56PM



#### Method Blank

Blank ID: MB for HBN 1837541 [BTF/19595]

Blank Lab ID: 1667417

QC for Samples: 1222926001

Matrix: Water (Surface, Eff., Ground)

#### Results by SM21 9222D

 Parameter
 Results
 LOQ/CL
 DL
 Units

 Fecal Coliform
 1.00U
 1.00
 1.00
 col/100mL

#### **Batch Information**

Analytical Batch: BTF19595 Analytical Method: SM21 9222D

Instrument: Analyst: M.A

Analytical Date/Time: 6/9/2022 5:48:00PM

Print Date: 06/14/2022 3:30:00PM



#### SGS NORTH AMERICA INC. CHAIN OF CUSTODY RECORD



Profil #385380 M

Γ	CLIENT: ADEC			INSTRUCTIONS: SECTIONS 1-5 MUST BE FILLED OUT. OMISSIONS MAY DELAY THE ONSET OF ANALYSIS.													
-	CONTACT: Morgan Brown	Morgan Brown 907-451-2141			SEC	SECTION 3  PRESERVATIVE					Page/_ of						
SECTION	PROJECT NAME: WHADA	PERMIT #:	22 464		# C	SAMPLE TYPE:	Na2SO4	Na2S04	HNO3		HN03		H2S04				
S	REPORTS TO: Morgan Brown				O N T	Comp Grab		. Coli	Total Hg	Metals	dness	Filter)	NO2				
	INVOICE TO: ADEC	QUOTE #: P.O. #:			A I N	Mi (Multi- incre-	D Fecal	223B E		200.8 Dissolved Metals (Lab Filter)	2340B Total hardness	5301B DOC (Lab Filter)	SM4500 T-Phos, NO2 +NO3,TKN				
SA V	FOR LAB SAMPLE IDENTIFICA	TION DATE MM/DD/YY	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental)	SM9222D Fecal Coliform	SM92223B	245.1	200.8 Di (Lab Filt	2340B <sup>-</sup>	5301B C	SM4500 +NO3,TI				REMARKS/ LOC ID
Group Management SAN 2	(1AB) WHADA-SOCY -	D-05 06/09/22	10:10	WATER	2	grab	X	X									
Group Ma																	
SECTION																	
ed tradem																	
s a register																	
ved - SGS is	RELINQUISHED BY: (1)	DATE	TIME	RECEIVED	BV.				SEC1	TION 4	DOD	Project	? <i>N</i>		DATA	DELIVE	RABLE REQUIREMENTS:
All rights reserved	Ann 6/9/22 10:30		NEOLIVED.	COC ID: Cooler ID:					/ (								
- 2014 - All I	RECINQUISHED BY:(2)	DATE	TIME	RECEIVED BY:					REQUESTED TURNAROUND TIME AND/OR SPECIAL INSTRUCTIONS				IONS				
erica Inc. – 2	RELINQUISHED BY:(3)  DATE  TIME  RECEIVED			CEIVED BY:			TEMP BLANK °C:					CHAIN OF CUSTODY SEAL: (CIRCLE)					
SGS North Ame				D FOR LABORATORY BY:			TEMP BLANK °C: 3.2 D62 OR AMBIENT []				$\perp$	<u>L</u> -	BROKEN ABSENT				
© SGS	6/9/22 16:02 (		SIF ON		(See attached Sample Receipt Form)				(Se	e attache	ed Sample Receipt Form)						

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

### **AIRBILL 9984323**

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

Signed..... Date ..... **Grant Aviation** 

6420 Kulis Dr. Anchorage, AK 99502

Phone: 1 (888) 359-4726 🌹 Freephone: 1 (888) 359-4726

Email: res@flygrant.com Web: http://www.flygrant.com/ GRANT AVIATION



FREIGHT DETAILS

FROM/TO: Kenai -> Anchorage International

Receiver: Allie Lambe 907-550-3217

Sender: Sarah Apsens

907-741-1026

Flight Departs: Jun 10 22 11:40 AM

Accepted: Thu, Jun 9 22 10:46:00 AM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
Water Samples	1	8	-	-	\$28.24
			<u> </u>	Total Tax:	\$1.76
			Total Pa	yments made:	\$30.00
Received in good condition by:			T	otal Unpaid:	\$0.00

#### **CUSTOMER COPY**

**AIRBILL 9984323** 

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

Date .....

**Grant Aviation** 

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#### TERMS AND CONDITIONS

Consignemnt Note Text

## Alert Expeditors Inc.

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

Collect	Prepay	Advance Charges
Job #	PO# Gand	7984323
Shipped Signaturé	X I >	



COC	e-Sam <u>p</u>	mple Receipt Form						
<u> 202</u>	SGS Workorder #:	1:	222926	1222926				
	Review Criteria	Condition (Yes, N	o, N/A	Exceptions Noted below				
	tody / Temperature Requirements		Note: Temperature and CO	C seal information is found on the chain of custody form				
DOD only: Did all	sample coolers have a corresponding (							
	If <0°C, were sample containers ice							
	Note containers receive	ed with ice:						
	containers received at non-compliant ter (Use form FS-0029 if more space i	is needed)						
	-		Note: Refer to form F-083 "Sa	mple Guide" for specific holding times and sample containers.				
	nples received within analytical holding le labels match COC? Record discrepa							
	on containers differs from COC, default times differ <1hr, record details & login							
	Were analytical requests	clear? Yes						
	l for analyses with multiple option for mo 21 vs 8260, Metals 6020 vs 200.8)	ethod						
• •	iners (type/mass/volume/preservative)u							
Note: Exemption	for metals analysis by 200.8/6020 in wa	iter.						
Volatile Analysis	Requirements (VOC, GRO, LL-Hg	, etc.)						
	ved with a corresponding % solids conta							
•	(e.g., VOAs, LL-Hg) in cooler with sam							
	als free of headspace (e.g., bubbles ≤ 6							
	oil VOAs field extracted with Methanol+							
Note to Client: A	Any "No", answer above indicates non-c	•		edures and may impact data quality.				
	<u>Additional ı</u>	notes (if a	oplicable):					

F102b\_SRFpm\_20210526



#### **Sample Containers and Preservatives**

Container Id	<u>Preservative</u>	Container	Container Id	<u>Preservative</u>	<u>Container</u>
		<u>Condition</u>			<u>Condition</u>
1222926001-A 1222926001-B	Na2S2O3 for Chlorine Redu Na2S2O3 for Chlorine Redu	OK OK			

#### **Container Condition Glossary**

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

- $\ensuremath{\mathsf{OK}}$  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.