

Laboratory Report of Analysis

To: Stantec Consulting Services Inc. 725 East Fireweed Lane Suite 200 Anchorage, AK 99503 (907)248-8883

Report Number: **1200299**

Client Project: Wasilla WWTP

Dear John Marshall,

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

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

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

Sincerely, SGS North America Inc.

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

Print Date: 02/04/2020 8:39:51AM

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Case Narrative

SGS Client: Stantec Consulting Services Inc. SGS Project: 1200299 Project Name/Site: Wasilla WWTP Project Contact: John Marshall

Refer to sample receipt form for information on sample condition.

1200289001DUP (1549874) DUP

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. Refer to LCS/LCSD RPD for batch precision.

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

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Laboratory Qualifiers

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

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
В	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content. i integrated per SOP.

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Note:

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SM21 4500-N D

SM21 4500P-B,E

SM21 9223B

SM21 2540D

	Sample Summary						
Client Sample ID	Lab Sample ID	Collected	Received	<u>Matrix</u>			
SW17	1200299001	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
SW18	1200299002	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
Effluent	1200299003	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
MW10	1200299004	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
MW15	1200299005	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
B5	1200299006	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
A8	1200299007	01/22/2020	01/22/2020	Water (Surface, Eff., Ground)			
<u>Method</u>	Method Description						
SM21 4500-NH3 G	SM21 4500-NH3 G Ammonia-N (W) SM21 4500-NH3 G						
SM21 5210B	Biochemica	l Oxygen Demand	SM21 5210B				
SM21 9222D	Fecal Colifo	orm (MF)					
EPA 300.0	Ion Chroma	tographic Analysis	6				

Total Coliform P/A Quant Tray

Total Suspended Solids SM20 2540D

TKN by Phenate (W)

Total Phosphorus (W)

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Client Sample ID: SW17			
Lab Sample ID: 1200299001	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.05	mg/L
	E. Coli	1	MPN/100mL
	Fecal Coliform	1.7	col/100mL
	Total Coliform	56	MPN/100mL
Waters Department	Ammonia-N	0.557	mg/L
	Nitrate-N	3.62	mg/L
	Total Kjeldahl Nitrogen	0.921J	mg/L
	Total Nitrate/Nitrite-N	3.62	mg/L
	Total Phosphorus	0.119	mg/L
	Total Suspended Solids	1.41	mg/L
Client Sample ID: SW18			
Lab Sample ID: 1200299002	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Microbiology Laboratory	Biochemical Oxygen Demand	3.11	mg/L
	Total Coliform	161	MPN/100mL
Waters Department	Ammonia-N	0.437	mg/L
•	Nitrate-N	4.46	mg/L
	Total Kjeldahl Nitrogen	1.06	mg/L
	Total Nitrate/Nitrite-N	4.50	mg/L
	Total Phosphorus	0.226	mg/L
	Total Suspended Solids	1.53	mg/L
Client Somple ID: Effluent			-
Client Sample ID: Effluent Lab Sample ID: 1200299003		D "	
-	Parameter	Result	<u>Units</u>
Microbiology Laboratory	Fecal Coliform	1270	col/100mL
Waters Department	Ammonia-N	36.8	mg/L
	Nitrate-N	0.118J	mg/L
	Nitrite-N	0.0750J	mg/L
	Total Kjeldahl Nitrogen	66.3	mg/L
	Total Nitrate/Nitrite-N	0.193J	mg/L
Client Sample ID: MW10			
Lab Sample ID: 1200299004	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Waters Department	Ammonia-N	0.0349J	mg/L
Client Sample ID: MW15			
Lab Sample ID: 1200299005	Parameter	Result	Units
Waters Department	Ammonia-N	0.0438J	mg/L
-			···· ·]· =
Client Sample ID: B5		_	
Lab Sample ID: 1200299006	Parameter	<u>Result</u>	<u>Units</u>
Waters Department	Ammonia-N	6.05	mg/L
	Total Kjeldahl Nitrogen	8.34	mg/L
Client Sample ID: A8			
Lab Sample ID: 1200299007	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Waters Department	Ammonia-N	9.49	mg/L
·	Total Kjeldahl Nitrogen	12.1	mg/L
	· •		-

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Results of SW17							
Client Sample ID: SW17 Client Project ID: Wasilla WWTP .ab Sample ID: 1200299001 .ab Project ID: 1200299		Collection Date: 01/22/20 10:30 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Microbiology Laboratory							
<u>Parameter</u> Biochemical Oxygen Demand	<u>Result Qual</u> 2.05	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzec</u> 01/22/20 17:0
Batch InformationAnalytical Batch: BOD6517Analytical Method: SM21 5210BAnalyst: A.LAnalytical Date/Time: 01/22/20 17:04Container ID: 1200299001-E							
P <u>arameter</u> Fecal Coliform	<u>Result Qual</u> 1.7	<u>LOQ/CL</u> 1.67	<u>DL</u> 1.67	<u>Units</u> col/100mL	<u>DF</u> . 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/22/20 15:5
Batch InformationAnalytical Batch: BTF17883Analytical Method: SM21 9222DAnalyst: A.AAnalytical Date/Time: 01/22/20 15:59Container ID: 1200299001-B							
Parameter	<u>Result Qual</u>	LOQ/CL	DL	<u>Units</u>	<u>DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyze
E. Coli Fotal Coliform	1 56	1 1	1 1	MPN/100 MPN/100	r 1		01/23/20 10:3 01/23/20 10:3
Batch Information							
Analytical Batch: BTF17886 Analytical Method: SM21 9223B Analyst: A.A Analytical Date/Time: 01/23/20 10:33 Container ID: 1200299001-A							
Analytical Date/Time: 01/23/20 10:33 Container ID: 1200299001-A							

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Results of SW17							
Client Sample ID: SW17 Client Project ID: Wasilla WWTP Lab Sample ID: 1200299001 Lab Project ID: 1200299		Ri M Se	ollection Da eceived Da atrix: Water olids (%): ocation:	te: 01/22/2	20 14:57	und)	
Results by Waters Department]				
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 3.62 0.100 U 3.62	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/22/20 17:4 01/22/20 17:4 01/22/20 17:4
Batch Information							
Analytical Batch: WIC6014 Analytical Method: EPA 300.0 Analyst: EWW Analytical Date/Time: 01/22/20 17:44 Container ID: 1200299001-F		F F F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/22/2 /t./Vol.: 10 r			
Parameter Total Suspended Solids	<u>Result</u> Qual 1.41	<u>LOQ/CL</u> 1.01	<u>DL</u> 0.313	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/24/20 11:2
Batch Information Analytical Batch: STS6596 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/24/20 11:26 Container ID: 1200299001-D							
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 0.921 J	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 01/31/20 15:1
Batch Information							
Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/31/20 15:19 Container ID: 1200299001-C		F F F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/30/2 't./Vol.: 25 r			
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 0.557	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	<u>Date Analyze</u> 01/29/20 15:3

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Results of SW17 Client Sample ID: SW17 Client Project ID: Wasilla WWTP Lab Sample ID: 1200299001 Lab Project ID: 1200299 Collection Date: 01/22/20 10:30 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%):

Results by Waters Department

Batch Information

Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 15:38 Container ID: 1200299001-C Prep Batch: WXX13186 Prep Method: METHOD Prep Date/Time: 01/29/20 15:00 Prep Initial Wt./Vol.: 6 mL Prep Extract Vol: 6 mL

Location:

	<u>Parameter</u> Total Phosphorus	<u>Result Qual</u> 0.119	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 02/03/20 13:37
ľ	Batch Information Analytical Batch: WDA4731 Analytical Method: SM21 4500P-B,E			Prep Batch: N Prep Method:				
	Analyst: DMM Analytical Date/Time: 02/03/20 13:37 Container ID: 1200299001-C	Prep Date/Time: 02/03/20 11:00						

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Biochemical Oxygen Demand 3.11 2.00 mg/L 1 01/22 Batch Information Analytical Batch: BOD6517 Analytical Method: SM21 5210B Analytical Date/Time: 01/22/20 17:04 Container ID: 1200299002-E Parameter Result Qual LOQ/CL DL Units DF Limits Date Fecal Coliform 1.67 1.67 1.67 col/100mL 1 01/22 Batch Information Analytical Batch: BTF17883 Analytical Method: SM21 9222D Analytical Method: SM21 9222D Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299002-B Allowable Date/Time: 01/22/20 15:59 Allowable Date/Time: 01/22/20 15:59	<u>e Analyze</u> 22/20 17:
Parameter Result Qual LOQ/CL DL Units DE Allowable Date Biochemical Oxygen Demand 3.11 2.00 2.00 mg/L 1 01/22 Biochemical Oxygen Demand 3.11 2.00 2.00 mg/L 1 Date O1/22 Batch Information Analytical Batch: BOD6517 Analytical Method: SM21 52108 Analytical Date/Time: 01/22/20 17:04 Diale Units DE Allowable Date Parameter Result Qual LOQ/CL DL Units DE Limits Date Fecal Coliform 1.67 U 1.67 1.67 col/100mL 1 01/22 Batch Information Analytical Batch: BTF17883 Analytical Date/Time: 01/22/20 15:59 Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299002-B Container ID: 1200299002-B E E Allowable Date 01/22	-
Analytical Batch: BOD6517 Analytical Method: SM21 5210B Analyst: A.L Analytical Date/Time: 01/22/20 17:04 Container ID: 1200299002-E Parameter Result Qual LOQ/CL DL Units DF Limits Date Fecal Coliform 1.67 U 1.67 1.67 col/100mL 1 01/22 Batch Information Analytical Batch: BTF17883 Analytical Method: SM21 9222D Analyst: A.A Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299002-B	
Parameter Result Qual LOQ/CL DL Units DF Limits Date Fecal Coliform 1.67 U 1.67 1.67 col/100mL 1 01/22 Batch Information Analytical Batch: BTF17883 Analytical Method: SM21 9222D Analyst: A.A Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299002-B Analytical Date/Time: 01/22/20 15:59 Allowable	
Analytical Batch: BTF17883 Analytical Method: SM21 9222D Analyst: A.A Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299002-B	<u>e Analyze</u> 22/20 15:
	<u>e Analyze</u> 23/20 10:
	23/20 10:
Batch Information Analytical Batch: BTF17886 Analytical Method: SM21 9223B Analyst: A.A Analytical Date/Time: 01/23/20 10:33 Container ID: 1200299002-A	

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Results of SW18							
Client Sample ID: SW18 Client Project ID: Wasilla WWTP Lab Sample ID: 1200299002 Lab Project ID: 1200299		Collection Date: 01/22/20 11:10 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Waters Department]				
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 4.46 0.100 U 4.50	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/22/20 18:0 01/22/20 18:0 01/22/20 18:0
Batch Information							
Analytical Batch: WIC6014 Analytical Method: EPA 300.0 Analyst: EWW Analytical Date/Time: 01/22/20 18:02 Container ID: 1200299002-F			Prep Batch: \ Prep Method: Prep Date/Tir Prep Initial W Prep Extract \	: METHOD me: 01/22/2 't./Vol.: 10 r	20 15:00		
Parameter Total Suspended Solids	<u>Result Qual</u> 1.53	<u>LOQ/CL</u> 1.02	<u>DL</u> 0.316	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/24/20 11:2
Batch Information							
Analytical Batch: STS6596 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/24/20 11:26 Container ID: 1200299002-D							
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 1.06	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/31/20 15:2
Batch Information							
Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/31/20 15:23 Container ID: 1200299002-C			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/30/2 't./Vol.: 25 r	20 11:05 mL		
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 0.437	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/29/20 15:4

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Results of SW18 Client Sample ID: SW18 Client Project ID: Wasilla WWTP Client Project ID: Wasilla WWTP

Collection Date: 01/22/20 11:10 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

Results by Waters Department

Lab Sample ID: 1200299002 Lab Project ID: 1200299

Batch Information

Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 15:43 Container ID: 1200299002-C Prep Batch: WXX13186 Prep Method: METHOD Prep Date/Time: 01/29/20 15:00 Prep Initial Wt./Vol.: 6 mL Prep Extract Vol: 6 mL

<u>Parameter</u>		<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable</u>	Date Analyzed
Total Phosphorus		0.226	0.0400	0.0120	mg/L	1	<u>Limits</u>	02/03/20 13:38
Batch Information Analytical Batch: W Analytical Method: Analyst: DMM Analytical Date/Time Container ID: 12002	SM21 4500P-B,E e: 02/03/20 13:38		F	Prep Batch: \ Prep Method: Prep Date/Tin Prep Initial W Prep Extract \	SM21 450 ne: 02/03/2 t./Vol.: 25 r	00P-B,E 20 11:00 mL		

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- Results of Effluent							
Client Sample ID: Effluent Client Project ID: Wasilla WWTP Lab Sample ID: 1200299003 Lab Project ID: 1200299	Collection Date: 01/22/20 13:00 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Microbiology Laboratory			_				
<u>Parameter</u> Fecal Coliform	<u>Result Qual</u> 1270	<u>LOQ/CL</u> 90.9	<u>DL</u> 90.9	<u>Units</u> col/100ml	<u>DF</u> _ 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/22/20 15:59
Batch Information Analytical Batch: BTF17883 Analytical Method: SM21 9222D Analyst: A.A Analytical Date/Time: 01/22/20 15:59 Container ID: 1200299003-A							

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Results of Effluent

Results of Effluent							
Client Sample ID: Effluent Client Project ID: Wasilla WWTP Lab Sample ID: 1200299003 Lab Project ID: 1200299			Collection Da Received Da Matrix: Water Solids (%): Location:	te: 01/22/2	20 14:57	und)	
Results by Waters Department							
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 0.118 J 0.0750 J 0.193 J	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 01/22/20 18:21 01/22/20 18:21 01/22/20 18:21
Batch Information Analytical Batch: WIC6014 Analytical Method: EPA 300.0 Analyst: EWW Analytical Date/Time: 01/22/20 18:21 Container ID: 1200299003-C			Prep Batch: Prep Method Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/22/2 /t./Vol.: 10	20 15:00 mL		
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 66.3	<u>LOQ/CL</u> 20.0	<u>DL</u> 6.20	<u>Units</u> mg/L	<u>DF</u> 20	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/31/20 15:24
Batch Information Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/31/20 15:24 Container ID: 1200299003-B			Prep Batch: Prep Method Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/30/2 /t./Vol.: 25	20 11:05 mL		
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 36.8	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/29/20 15:45
Batch Information							
Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 15:45 Container ID: 1200299003-B			Prep Batch: Prep Method Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/29/2 /t./Vol.: 0.6	20 15:00		
rint Date: 02/04/2020 0.20.504M4						1.61-	n in active t
rint Date: 02/04/2020 8:39:59AM						J flaggin	g is activated
	0 West Potter Di 07.562.2343 f 90			om		Membe	er of SGS Group

Results of MW10							
Client Sample ID: MW10 Client Project ID: Wasilla WWTP Lab Sample ID: 1200299004 Lab Project ID: 1200299	Collection Date: 01/22/20 13:20 Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Waters Department <u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 0.500 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	DF 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/31/20 15:2
Batch Information Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D		I	Prep Batch: Prep Method:	METHOD			
Analyst: DMM Analytical Date/Time: 01/31/20 15:25 Container ID: 1200299004-A		F	Prep Date/Tir Prep Initial W Prep Extract	't./Vol.: 25 r			
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 0.0349 J	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/29/20 15:4
Batch Information							
Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 15:47 Container ID: 1200299004-A		F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/29/2 /t./Vol.: 6 m	20 15:00		

J flagging is activated

	F N S	Received Dat Aatrix: Water Solids (%):	te: 01/22/2	20 14:57	und)	
		_				
<u>Result Qual</u> 0.500 U	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyze</u> 01/31/20 15:2
		Prep Method: Prep Date/Tir Prep Initial W	METHOD me: 01/30/2 t./Vol.: 25 r			
<u>Result Qual</u>	LOQ/CL	DL	Units	DF	<u>Allowable</u> <u>Limits</u>	Date Analyze
0.0438 J	0.100	0.0310	mg/L	1		01/29/20 15:4
		Prep Batch:				
	0.500 U	Result Qual LOQ/CL Result Qual LOQ/CL LOQ/CL	Received Dat Matrix: Water Solids (%): Location: Result Qual LOQ/CL DL 0.500 U 1.00 0.310 Prep Batch: 'Prep Method: Prep Date/Tir Prep Initial W Prep Extract W Result Qual LOQ/CL DL	Received Date: 01/22/2 Matrix: Water (Surface, Solids (%): Location: Location: 0.500 U 1.00 0.310 mg/L Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/2 Prep Initial Wt./vol.: 25 mL Result Qual LOQ/CL DL Units	Solids (%): Location: Image: Description of the second structure LOQ/CL DL Units DF 0.500 U 1.00 0.310 mg/L 1 Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/20 11:05 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL Result Qual LOQ/CL DL Units DF	Received Date: 01/22/20 14:57 Matrix: Water (Surface, Eff., Ground) Solids (%): Location: Result Qual 0.500 U LOQ/CL 1.00 DL 0.310 Units mg/L DE 1 Allowable Limits Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/20 11:05 Prep Initial Wt./Vol.: 25 mL Prep Extract Vol: 25 mL Allowable Result Qual LOQ/CL DL Units DE Allowable Limits Allowable Result Qual LOQ/CL DL Units DE

J flagging is activated

SGS	

Client Sample ID: B5 Client Project ID: Wasilla WWTP Lab Sample ID: 1200299006 Lab Project ID: 1200299		R M S	collection Da deceived Da latrix: Wate olids (%): ocation:	ite: 01/22/2	20 14:57		
Results by Waters Department							
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 8.34	<u>LOQ/CL</u> 2.00	<u>DL</u> 0.620	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/31/20 15:30
Batch Information Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/31/20 15:30 Container ID: 1200299006-A			Prep Batch: Prep Method Prep Date/Ti Prep Initial W Prep Extract	: METHOD me: 01/30/2 /t./Vol.: 25	20 11:05 mL		
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 6.05	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/29/20 16:43
Batch Information Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 16:43 Container ID: 1200299006-A			Prep Batch: Prep Method Prep Date/Ti Prep Initial W Prep Extract	: METHOD me: 01/29/2 /t./Vol.: 0.6	20 15:00		

J flagging is activated

SGS	

ab Project ID: 1200299 Results by Waters Department			olids (%): ocation:				
<u>Parameter</u> Fotal Kjeldahl Nitrogen	<u>Result Qual</u> 12.1	<u>LOQ/CL</u> 2.00	<u>DL</u> 0.620	<u>Units</u> mg/L	<u>DF</u> 2	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/31/20 15:31
Batch Information Analytical Batch: WDA4730 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/31/20 15:31 Container ID: 1200299007-A			Prep Batch: Prep Method Prep Date/Ti Prep Initial W Prep Extract	: METHOD me: 01/30/2 /t./Vol.: 25 r	20 11:05		
P <u>arameter</u> Ammonia-N	<u>Result Qual</u> 9.49	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzed</u> 01/29/20 16:44
Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Analyst: EWW Analytical Date/Time: 01/29/20 16:44 Container ID: 1200299007-A			Prep Batch: Prep Method Prep Date/Ti Prep Initial W Prep Extract	: METHOD me: 01/29/2 /t./Vol.: 0.6	20 15:00		

J flagging is activated

Method Blank					
Blank ID: MB for HBN 18039 Blank Lab ID: 1549812	50 [BOD/6517]	Matrix	: Water (Sur	face, Eff., Ground)	
QC for Samples: 1200299001, 1200299002					
Results by SM21 5210B					
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L	
Batch Information					
Analytical Batch: BOD6517 Analytical Method: SM21 52 Instrument: Analyst: A.L Analytical Date/Time: 1/22/2					

Print Date: 02/04/2020 8:40:02AM

SGS	

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Blank Spike Summary				
Blank Spike ID: LCS for HBN Blank Spike Lab ID: 1549813 Date Analyzed: 01/22/2020		BOD6517]	Matrix: Water (Surface, Eff., Ground)
QC for Samples: 12002990	001, 120029	9002		
Results by SM21 5210B				
	6	Blank Spike	e (mg/L)	
<u>Parameter</u>	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	199	101	(84.6-115.4
Batch Information				
Analytical Batch: BOD6517 Analytical Method: SM21 5210 Instrument: Analyst: A.L	B			
Print Date: 02/04/2020 8:40:04AM				

Method Blank				
Blank ID: MB for HBN Blank Lab ID: 1549819		Matrix	k: Water (Surfa	ace, Eff., Ground)
QC for Samples: 1200299001, 1200299003	2, 1200299003			
Results by SM21 9222	ט			
Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL
Batch Information				
Analytical Batch: BTF Analytical Method: SM Instrument:				
Analyst: A.A	1/22/2020 3:59:17PM			

Print Date: 02/04/2020 8:40:07AM

Method Blank Blank ID: MB for HBN 1 Blank Lab ID: 1540820	803944 [BTF/17883]	Matrix	: Water (Surfa	ace, Eff., Ground)
Blank Lab ID: 1549820 QC for Samples: 200299001, 1200299002	, 1200299003			
Results by SM21 9222D				
Parameter Fecal Coliform	<u>Results</u> 1.00U	<u>LOQ/CL</u> 1.00	<u>DL</u> 1.00	<u>Units</u> col/100mL
Analytical Batch: BTF1 Analytical Method: SM Instrument: Analyst: A.A				

Print Date: 02/04/2020 8:40:07AM

QC for Samples: 200299001, 120029900	12				
Results by SM21 9223					
<u>Parameter</u> Fotal Coliform	<u>Results</u> 1U	LOQ/CL	<u>DL</u> 1	<u>Units</u> MPN/100m	
E. Coli	10	1	1	MPN/100m	
Analytical Batch: BTF Analytical Method: SI Instrument: Analyst: A.A Analytical Date/Time:					

Print Date: 02/04/2020 8:40:11AM

Method Blank					
Blank ID: MB for HBN 180 Blank Lab ID: 1549870	3975 [STS/6596]	Matrix	: Water (Surf	ace, Eff., Ground)	
QC for Samples: 1200299001, 1200299002					
Results by SM21 2540D					
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>	
Total Suspended Solids	0.500U	1.00	0.310	mg/L	
Batch Information					
Analytical Batch: STS659 Analytical Method: SM21 Instrument: Analyst: EWW Analytical Date/Time: 1/2	2540D				

Print Date: 02/04/2020 8:40:15AM

SGS	

- Duplicate Sample Summary					
Original Sample ID: 1200254001 Duplicate Sample ID: 1549873 QC for Samples:			Analysis Date: (Matrix: Water (S	ıd)	
Results by SM21 2540D					
NAME	Original	Duplicate	Units	<u>RPD (%)</u>	RPD CL
Total Suspended Solids	2470	2450	mg/L	0.81	(< 5)
Batch Information Analytical Batch: STS6596 Analytical Method: SM21 2540 Instrument: Analyst: EWW	D				
Print Date: 02/04/2020 8:40:17AM					

Duplicate Sample Summary					
Driginal Sample ID: 1200289 Duplicate Sample ID: 154987 QC for Samples: 1200299001, 1200299002				01/24/2020 11:26 Surface, Eff., Grou	nd)
Results by SM21 2540D					
NAME	<u>Original</u>	Duplicate	<u>Units</u>	<u>RPD (%)</u>	RPD CL
Fotal Suspended Solids	476	520	mg/L	8.80*	(< 5)
Batch Information					
Analytical Batch: STS6596 Analytical Method: SM21 2540 Instrument: Analyst: EWW	D				



Blank Spike Summary Blank Spike ID: LCS for HB Blank Spike Lab ID: 154987 Date Analyzed: 01/24/2020	71	STS6596]		[ST Spi	S6596] ke Duplica	ate Lab ID:	D for HBN 1 1549872 Eff., Ground		
QC for Samples: 120029	9001, 120029	9002							
Results by SM21 2540D									
	E	Blank Spike	(mg/L)	5	Spike Dupli	cate (mg/L)			
P <u>arameter</u> Total Suspended Solids	<u>Spike</u> 25	<u>Result</u> 25.5	<u>Rec (%)</u> 102	<u>Spike</u> 25	<u>Result</u> 25.6	<u>Rec (%)</u> 102	<u>CL</u> (75-125)	<u>RPD (%)</u> 0.39	<u>RPD CL</u> (< 5)
Batch Information									
Analytical Batch: STS6596 Analytical Method: SM21 25 Instrument: Analyst: EWW	40D								

Print Date: 02/04/2020 8:40:18AM

lank ID: MB for HBN 18(lank Lab ID: 1549853 C for Samples:	J3967 [WXX/13182]	Matrix	c: Water (Surfac	ce, Eff., Ground)	
C for Samples: 200299001, 1200299002, ⁻	1200299003				
esults by EPA 300.0					
arameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>	
itrate-N	0.0530J	0.200	0.0500	mg/L	
itrite-N	0.0540J	0.200	0.0500	mg/L	
otal Nitrate/Nitrite-N	0.107J	0.200	0.0500	mg/L	
tch Information					
Analytical Batch: WIC60	14	Prep Ba	tch: WXX13182		
Analytical Method: EPA	300.0	Prep Me	thod: METHOD		
Instrument: 930 Metrohn	n compact IC flex	Prep Da	te/Time: 1/22/20	20 3:00:00PM	
Analyst: EWW			tial Wt./Vol.: 10 r		
Analytical Date/Time: 1/2	22/2020 3:28:57PM	Prep Ex	tract Vol: 10 mL		

Print Date: 02/04/2020 8:40:21AM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1200299 [WXX13182] Blank Spike Lab ID: 1549854 Date Analyzed: 01/22/2020 15:49

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1200299001, 1200299002, 1200299003

Results	by	EPA	300.0	

,			_	
	E	Blank Spike	e (mg/L)	
<u>Parameter</u>	Spike	Result	<u>Rec (%)</u>	
Nitrate-N	5	4.81	96	
Nitrite-N	5	4.97	99	
Total Nitrate/Nitrite-N	10	9.78	98	

Batch Information

Analytical Batch: WIC6014 Analytical Method: EPA 300.0 Instrument: 930 Metrohm compact IC flex Analyst: EWW Prep Batch: WXX13182 Prep Method: METHOD Prep Date/Time: 01/22/2020 15:00 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL Dupe Init Wt./Vol.: Extract Vol:

Print Date: 02/04/2020 8:40:23AM

Lab ID: 1550167 Samples: 09001, 1200299002, 1200299003, 1200299004, 1200299005, 1200299006, 1200299007 s by SM21 4500-NH3 G eter Results nia-N 0.0500U 0.0500U 0.100 0.0310 nformation lytical Batch: WDA4729 Prep Batch: WXX13186 Iytical Method: SM21 4500-NH3 G Prep Method: METHOD rument: Discrete Analyzer 2 Prep Initial Wt./Vol.: 6 mL	ank Lab ID: 1550167 C for Samples: 00299001, 1200299002, 1200299003, 1200299004, 1200299005, 1200299006, 1200299007 esults by SM21 4500-NH3 G rameter Results nmonia-N 0.0500U 0.100 0.0310 mg/L ch Information Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Instrument: Discrete Analyzer 2	Method Blank				
as by SM21 4500-NH3 G eter Results nia-N 0.0500U Information Information Information Intical Batch: WDA4729 Information Information	00299001, 1200299002, 1200299003, 1200299004, 1200299005, 1200299006, 1200299007 esults by SM21 4500-NH3 G rameter Results nmonia-N 0.0500U 0.100 0.0310 mg/L ch Information Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Instrument: Discrete Analyzer 2 Analyst: EWW	Blank ID: MB for HBN 1 Blank Lab ID: 1550167	1804066 [WXX/13186]	Matrix	: Water (Surfac	ce, Eff., Ground)
eter Results LOQ/CL DL Units nia-N 0.0500U 0.100 0.0310 mg/L	rameter nmonia-NResults 0.0500ULOQ/CL 0.100DL 	QC for Samples: 200299001, 1200299002	2, 1200299003, 1200299004, 120	0299005, 1200299006	, 1200299007	
nia-N 0.0500U 0.100 0.0310 mg/L nformation Ilytical Batch: WDA4729 Ilytical Method: SM21 4500-NH3 G rument: Discrete Analyzer 2 Ilyts: EWW Prep Initial Wt./Vol.: 6 mL	Analytical Batch: WDA4729 Analytical Method: SM21 4500-NH3 G Instrument: Discrete Analyzer 2 Analyst: EWW	Results by SM21 4500-	NH3 G			
Ilytical Batch: WDA4729Prep Batch: WXX13186Ilytical Method: SM21 4500-NH3 GPrep Method: METHODrument: Discrete Analyzer 2Prep Date/Time: 1/29/2020 3:00:00PMIlyst: EWWPrep Initial Wt./Vol.: 6 mL	Analytical Batch: WDA4729Prep Batch: WXX13186Analytical Method: SM21 4500-NH3 GPrep Method: METHODInstrument: Discrete Analyzer 2Prep Date/Time: 1/29/2020 3:00:00PMAnalyst: EWWPrep Initial Wt./Vol.: 6 mL	<u>⊃arameter</u> Ammonia-N				
Jytical Method:SM21 4500-NH3 GPrep Method:METHODrument:Discrete Analyzer 2Prep Date/Time:1/29/20203:00:00PMIlyst:EWWPrep Initial Wt./Vol.:6 mL	Analytical Method:SM21 4500-NH3 GPrep Method:METHODInstrument:Discrete Analyzer 2Prep Date/Time:1/29/20203:00:00PMAnalyst:EWWPrep Initial Wt./Vol.:6 mL	atch Information				
		Analytical Method: SN Instrument: Discrete A Analyst: EWW	121 4500-NH3 G malyzer 2	Prep Me Prep Da Prep Init	thod: METHOD te/Time: 1/29/20 ial Wt./Vol.: 6 m	020 3:00:00PM

Print Date: 02/04/2020 8:40:25AM



Blank Spike Summary			_						
Blank Spike ID: LCS for HBI Blank Spike Lab ID: 155016 Date Analyzed: 01/29/2020	6] Spike Duplicate ID: LCSD for HBN 1200299 [WXX13186] Spike Duplicate Lab ID: 1550169 Matrix: Water (Surface, Eff., Ground)								
QC for Samples: 1200299	9001, 120029	99002, 1200)299003, 12(00299004,	12002990	05, 1200299	006, 1200299	007	
						,	,		
Results by SM21 4500-NH3	G								
		Blank Spike	e (mg/L)	S	pike Dupli	cate (mg/L)			
<u>Parameter</u>	Spike	Result	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Ammonia-N	1	1.09	109	1	0.914	91	(75-125)	17.70	(< 25)
Potob Information									
Batch Information									
Analytical Batch: WDA4729					Batch: W				
Analytical Method: SM21 450					o Method:		00 45 00		
Instrument: Discrete Analyzer 2 Analyst: EWW						e: 01/29/20	20 15:00 Extract Vol	· 6 ml	
Allalyst. EVVVV							Extract Vol:		

SGS	

Matrix Spike Summ	ary		_								
Driginal Sample ID: MS Sample ID: 155 MSD Sample ID: 15	0170 MS 550171 MSD			Analysis Analysis Matrix:	Date: 01 Date: 01 Water (Su	1/29/2020 1/29/2020 1/29/2020 urface, Eff.	15:40 15:42 , Ground)	ı			
QC for Samples: 12	200299001, 12002990	02, 120029	9003, 120	0299004, 12	:00299005	5, 1200299	9006, 12002	99007			
Results by SM21 45	00-NH3 G										
		Ma	trix Spike (Spike (mg/L) Spike Duplicate (mg/L)							
a <u>rameter</u> nmonia-N	<u>Sample</u> 0.557	<u>Spike</u> 1.00	<u>Result</u> 1.45	<u>Rec (%)</u> 90	<u>Spike</u> 1.00	<u>Result</u> 1.60	<u>Rec (%)</u> 104	<u>CL</u> 75-125	<u>RPD (%)</u> 9.60	<u>RPD CL</u> (< 25)	
Batch Information											
Analytical Batch: W Analytical Method: Instrument: Discrete Analyst: EWW Analytical Date/Time	SM21 4500-NH3 G	PM		Prep Prep Prep	Method: Date/Tim Initial Wt		by SM21 4 020 3:00:0 0mL		(W)		
maryucar Date/TIM	e. 1/29/2020 3:40:38			Prep		701. 0.00m	IL				

Print Date: 02/04/2020 8:40:28AM

Print Date: 02/04/2020 8:40:30AM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1200299 [WXX13187] Blank Spike Lab ID: 1550321 Date Analyzed: 01/31/2020 15:16 Spike Duplicate ID: LCSD for HBN 1200299 [WXX13187] Spike Duplicate Lab ID: 1550322 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1200299001, 1200299002, 1200299003, 1200299004, 1200299005, 1200299006, 1200299007

		e (mg/L)		Spike Dupli				
<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	<u>RPD (%)</u>	RPD CL			
4	4.15	104	4	4.30	107	(75-125)	3.60	(< 25)
ID						0 11.05		
ID						20 11:05		
Analyst: DMM Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL								
	4	4 4.15	4 4.15 104	4 4.15 104 4 Pre Pre Pre Pre	4 4.15 104 4 4.30 Prep Batch: W Prep Method: Prep Date/Tim	4 4.15 104 4 4.30 107 Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/202	4 4.15 104 4 4.30 107 (75-125) I D Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/2020 11:05	4 4.15 104 4 4.30 107 (75-125) 3.60 Prep Batch: WXX13187 Prep Method: METHOD Prep Date/Time: 01/30/2020 11:05

Print Date: 02/04/2020 8:40:32AM

SGS	

Matrix Spike Summary												
Original Sample ID: 1200 MS Sample ID: 1550323 MSD Sample ID: 15503	3 MS			Analysis Analysis	Date: 0 Date: 0	1/31/2020 1/31/2020 1/31/2020 urface, Eff.	15:20 15:21					
QC for Samples: 12002	99001, 12002990	02, 120029	99003, 120			•						
Results by SM21 4500-N	I D											
		Ма	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)					
<u>Parameter</u> Fotal Kjeldahl Nitrogen	<u>Sample</u> 0.921J	<u>Spike</u> 4.00	<u>Result</u> 5.26	<u>Rec (%)</u> 108	<u>Spike</u> 4.00	<u>Result</u> 5.17	<u>Rec (%)</u> 106	<u>CL</u> 75-125	<u>RPD (%)</u> 1.70	<u>RPD CL</u> (< 25)		
Batch Information												
Analytical Batch: WDA4						NXX13187			``			
Analytical Method: SM2 Instrument: Discrete Ana				Prep Method: Distillation TKN by Phenate (W) Prep Date/Time: 1/30/2020 11:05:00AM								
Analyst: DMM	ary201 2					t./Vol.: 25		007 (11)				
Analytical Date/Time: 1/	31/2020 3:20:29	PM		Prep	Extract \	/ol: 25.00	mL					

Print Date: 02/04/2020 8:40:32AM

Method Blank]						
Blank ID: MB for HBN 1 Blank Lab ID: 1550390	804181 [WXX/13189]	Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1200299001, 1200299002	2							
Results by SM21 4500P	Р-В,Е]						
<u>Parameter</u> Total Phosphorus	<u>Results</u> 0.0200U	<u>LOQ/CL</u> 0.0400	<u>DL</u> 0.0120	<u>Units</u> mg/L				
Batch Information								
Analytical Batch: WDA Analytical Method: SM Instrument: Discrete A Analyst: DMM Analytical Date/Time: 2	21 4500P-B,E nalyzer 2	Prep Me Prep Da Prep Init	tch: WXX13189 ethod: SM2145 ite/Time: 2/3/20 tial Wt./Vol.: 25 tract Vol: 25 ml	00P-B,E 20 11:00:00AM mL				

Print Date: 02/04/2020 8:40:34AM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1200299 [WXX13189] Blank Spike Lab ID: 1550391 Date Analyzed: 02/03/2020 13:36 Spike Duplicate ID: LCSD for HBN 1200299 [WXX13189] Spike Duplicate Lab ID: 1550392 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1200299001, 1200299002

		Blank Spike	e (mg/L)	5	Spike Duplic	ate (mg/L)			
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CI
Fotal Phosphorus	0.2	0.195	98	0.2	0.194	97	(75-125)	0.77	(< 25)
Batch Information									
	1			Pre	o Batch: W	XX13189			
Satch Information Analytical Batch: WDA4731 Analytical Method: SM21 4					o Batch: W		9-B,E		
Analytical Batch: WDA4731	500P-B,E			Pre	o Method:	'XX13189 SM21 4500F ∋: 02/03/202	-		
Analytical Batch: WDA4731 Analytical Method: SM21 4	500P-B,E			Pre Pre	o Method: o Date/Time	SM21 4500F e: 02/03/202	-		

Print Date: 02/04/2020 8:40:36AM



Matrix Spike Summary

Original Sample ID: 1200299002 MS Sample ID: 1550393 MS MSD Sample ID: 1550394 MSD Analysis Date: 02/03/2020 13:38 Analysis Date: 02/03/2020 13:39 Analysis Date: 02/03/2020 13:40 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1200299001, 1200299002

	Matrix Spike (mg/L)			Эріке	e Duplicate						
Sample	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD C		
0.220	0.200	.427	101	0.200	0.444	109	10-120	4.00	(< 25)		
Analytical Method: SM21 4500P-B,E Instrument: Discrete Analyzer 2						Prep Method: Total Phosphorus (W) Ext. Prep Date/Time: 2/3/2020 11:00:00AM					
	Prep Initial Wt./Vol.: 25.00mL M Prep Extract Vol: 25.00mL										
	0.226 1 500P-B,E	0.226 0.200 1 500P-B,E	0.226 0.200 .427 1 500P-B,E	0.226 0.200 .427 101 1 Prep 500P-B,E Prep zer 2 Prep	0.226 0.200 .427 101 0.200 1 Prep Batch: V 500P-B,E Prep Method: zer 2 Prep Date/Tim	0.226 0.200 .427 101 0.200 0.444 1 Prep Batch: WXX13189 500P-B,E Prep Method: Total Pho zer 2 Prep Date/Time: 2/3/202	0.226 0.200 .427 101 0.200 0.444 109 1 Prep Batch: WXX13189 Prep Method: Total Phosphorus (W	0.226 0.200 .427 101 0.200 0.444 109 75-125 1 Prep Batch: WXX13189 WXX13189 WXX13189 WYX13189 WYX13189	0.226 0.200 .427 101 0.200 0.444 109 75-125 4.00 1 Prep Batch: WXX13189 500P-B,E Prep Method: Total Phosphorus (W) Ext. zer 2 Prep Date/Time: 2/3/2020 11:00:00AM		

Print Date: 02/04/2020 8:40:38AM



SGS North America Inc. **CORD CUSTODY RECORD**

Locations Nationwide

Alaska Maryland New York New Jersey

Indiana North Carolina

West Virgina Kentucky

www.us.sgs.com

	CLIENT:	Stantec								Sectional de la constante de l								1 (
	CONTACT:		DNE NO: 343	-5202	-	Sec	tion 3		<u>///o_//</u>	uy u	<u>, , , , , , , , , , , , , , , , , , , </u>	Preser				<u> </u>		Page <u></u> of <u></u>
Section '		AGING WINTTY PERI				# C		(١	١	Nasi	NazV	#2.04	H-YC-H				
	REPORTS IN	Ì	ail: uke.a)way	Xa stanto	e com	O N T	Type C = COMP G =			મ		(QUANT) WIRX	KN/Annonia HP	nia.				
	INVOICE TO: QUOTE #: P.O. #: JUHTOCHIES					I N	GRAB MI = Multi			Nitrate Mitrite		Quant	Amman	KN/AMMONIA				
	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	Incre- mental Soils	Clack	TSS	Nitrat	Ŋ	TC (1	TKN	Trul	1			REMARKS/ LOC ID
	IAF	SUDT	1/22/20	1030	WATER	6	G	1	۱. ۱	1	1	١	1					
	ZAE	51018	1	11:10		6		١	1	1)	١	1					
	3AC	Effluent		13-DO		2								1				
Section	(4A)	MWID		13:20										1				
Sec	SA	MW15		13:30	<u> </u>		$\left \right $							1				
	64	85		1312			$\left \right _{i}$							1				
	(74	A&	4	1230			<u> </u>							1				
		\mathcal{T}												l				
	Relinquishe	d By: (1)	Date	Time	Received By	v:	<u> </u>		1	Sect	ion 4	DOE) Projec	ct? Yes	s No	Data	Delive	rable Requirements:
	1 h		1/22/20	145 F				>		Cool	er ID:							
	Relinquishe	d.By: (2)	Date	Time	Received By	y:				Reque	sted Tu					cial Instr	uction	s:
-uo										1	Profi	(,‡	348	183	, <i>(</i>]Y	1		
Section 5	Relinquishe	d By: (3)	Date	Time	Received By	y:					•	-			V	<u>~</u>		
ľ										Temp	Blank [°]		19	DS	59	Chai	in of C	ustody Seal: (Circle) H Iハ
	Relinquishe	d By: (4)	Date 20	Time	Received Fo		\sim	h 1	M				bient []		INTA	АСТ	BROKEN ABSENT
			1/20/20	ð:1457	Mul	[lle -	Deee	n v	r# 1	(See	attach	ed San	nple Re	ceipt F	orm)	(See at		Sample Receipt Form)

[] 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

e-Sample Receipt Form

000	e-Sam <u>p</u>	le Rece	eipt l	Form			
SGS	SGS Workorder #:		12	2002	299	1 2	0 0 2 9 9
R	Review Criteria	Condition	n (Yes, No	o, N/A	Exc	eptions No	ted below
<u>Chain</u>	of Custody / Temperature Requir	ements	<u>s</u>	١	es Exemption pe	ermitted if samp	oler hand carries/delivers.
	Were Custody Seals intact? Note # & le	ocation I	N/A	bsent			
	COC accompanied sa	mples?	Yes				
DOD: Were	e samples received in COC corresponding co						
	N/A **Exemption permitted if o		_			nples where ch	
Temper	ature blank compliant* (i.e., 0-6 °C afte	r CF)?	Yes	Cooler ID	: 1	@	0.9 °C Therm. ID: D59
			(Cooler ID	:	@	°C Therm. ID:
-	t a temperature blank, the "cooler temperature" will R TEMP" will be noted to the right. "ambient" or "chi		(Cooler ID	:	@	°C Therm. ID:
	e noted if neither is available.		(Cooler ID	:	@	°C Therm. ID:
			(Cooler ID	:	@	°C Therm. ID:
*If >	>6°C, were samples collected <8 hours	ago? I	N/A				
	If <0°C, were sample containers ice	free?	N/A				
Note: Identify contai	iners received at non-compliant tempera Use form FS-0029 if more space is ne						
Holding Time /	Documentation / Sample Condition Re	quireme	ents N	ote: Refer	to form F-083 "Samp	le Guide" for spe	cific holding times.
	Were samples received within holding	time?	Yes				
Do samples match C	OC** (i.e.,sample IDs,dates/times colle	cted)?	No S				ate/Nitrite IC anaylsis.
**Note: If times of	differ <1hr, record details & login per CC	DC.	P	roceede	d with scheduling	g anayısıs.	
***Note: If sample information on	containers differs from COC, SGS will default to C	OC inform	nation				
	s clear? (i.e., method is specified for an nultiple option for analysis (Ex: BTEX, M		Yes				
				1	N/A ***Exemption	permitted for r	<u>metals (e.g,200.8/6020A).</u>
Were proper contain	ers (type/mass/volume/preservative***)	used?	Yes				
	Volatile / LL-Hg Requ	uireme	nts				
Were Trip Blank	s (i.e., VOAs, LL-Hg) in cooler with sam						
•	ials free of headspace (i.e., bubbles ≤ 6						
	all soil VOAs field extracted with MeOH-						
	lient: Any "No", answer above indicates non			th standa	ard procedures and	d may impact o	data quality.
	Additional					•	· ·



Sample Containers and Preservatives

Container Id	<u>Preservative</u>	<u>Container</u> Condition	Container Id	<u>Preservative</u>	<u>Container</u> Condition
1200299001-A	Na2S2O3 for Chlorine Redu	ОК			
1200299001-B	Na2S2O3 for Chlorine Redu	ОК			
1200299001-C	H2SO4 to pH < 2	ОК			
1200299001-D	No Preservative Required	ОК			
1200299001-E	No Preservative Required	ОК			
1200299001-F	No Preservative Required	ОК			
1200299002-A	Na2S2O3 for Chlorine Redu	ОК			
1200299002-B	Na2S2O3 for Chlorine Redu	ОК			
1200299002-C	H2SO4 to pH < 2	ОК			
1200299002-D	No Preservative Required	ОК			
1200299002-E	No Preservative Required	ОК			
1200299002-F	No Preservative Required	ОК			
1200299003-A	Na2S2O3 for Chlorine Redu	ОК			
1200299003-B	H2SO4 to pH < 2	ОК			
1200299003-C	No Preservative Required	ОК			
1200299004-A	H2SO4 to pH < 2	ОК			
1200299005-A	H2SO4 to pH < 2	ОК			
1200299006-A	H2SO4 to pH < 2	ОК			
1200299007-A	H2SO4 to pH < 2	ОК			

Container Condition Glossary

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

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

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added. QN - Insufficient sample quantity provided.