Laboratory Report of Analysis

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

Report Number: **1183000**

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 Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183000**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW1 (1183000001) PS

9222D - Fecal coliform - Confluent growth due to matrix interference at higher dilutions.

MB for HBN 1781182 [BOD/6067] (1453448) MB

5210-BOD- MB (0.32 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples>10X the MB are not significantly affected. Samples <10X the MB results may be biased high.

1183000003MS (1453547) MS

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

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
U	Indicates the analyte was analyzed for but not detected.

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW1	1183000001	06/18/2018	06/18/2018	Water (Surface, Eff., Ground)
SW2	1183000002	06/18/2018	06/18/2018	Water (Surface, Eff., Ground)
SW3	1183000003	06/18/2018	06/18/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **SW1**
Lab Sample ID: 1183000001
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	6.30	mg/L
E. Coli	50	MPN/100mL
Total Coliform	236	MPN/100mL
Ammonia-N	0.0553J	mg/L
Nitrate-N	0.0310J	mg/L
Total Kjeldahl Nitrogen	1.09	mg/L
Total Phosphorus	0.219	mg/L
Total Suspended Solids	8.20	mg/L

Client Sample ID: **SW2**
Lab Sample ID: 1183000002
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	3.22	mg/L
Total Coliform	2480	MPN/100mL
Nitrate-N	0.0312J	mg/L
Total Kjeldahl Nitrogen	0.691J	mg/L
Total Phosphorus	0.0732	mg/L
Total Suspended Solids	8.40	mg/L

Client Sample ID: **SW3**
Lab Sample ID: 1183000003
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Total Coliform	980	MPN/100mL
Total Phosphorus	0.0225	mg/L
Total Suspended Solids	3.27	mg/L

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

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000001
Lab Project ID: 1183000

Collection Date: 06/18/18 12:36
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	6.30		2.00	2.00	mg/L	1		06/19/18 12:51

Batch Information

Analytical Batch: BOD6067
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/18 12:51
Container ID: 1183000001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	100 U		100	100	col/100mL	1		06/18/18 17:18

Batch Information

Analytical Batch: BTF16630
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/18/18 17:18
Container ID: 1183000001-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	50		1	1	MPN/100m	1		06/18/18 18:48
Total Coliform	236		1	1	MPN/100m	1		06/18/18 18:48

Batch Information

Analytical Batch: BTF16632
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/18/18 18:48
Container ID: 1183000001-C

Print Date: 06/25/2018 4:45:10PM

J flagging is activated

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000001
Lab Project ID: 1183000

Collection Date: 06/18/18 12:36
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	8.20		2.00	0.620	mg/L	1		06/20/18 14:14

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/20/18 14:14
Container ID: 1183000001-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.09		1.00	0.310	mg/L	1		06/21/18 12:43

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:43
Container ID: 1183000001-D

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0553	J	0.100	0.0310	mg/L	1		06/19/18 10:58

Batch Information

Analytical Batch: WDA4310
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/19/18 10:58
Container ID: 1183000001-D

Prep Batch: WXX12382
Prep Method: METHOD
Prep Date/Time: 06/19/18 10:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0310	J	0.100	0.0250	mg/L	2		06/19/18 15:05
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/19/18 15:05

Print Date: 06/25/2018 4:45:10PM

J flagging is activated

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000001
Lab Project ID: 1183000

Collection Date: 06/18/18 12:36
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2703
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/19/18 15:05
Container ID: 1183000001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.219		0.0200	0.00500	mg/L	1		06/19/18 13:52

Batch Information

Analytical Batch: WDA4311
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/19/18 13:52
Container ID: 1183000001-D

Prep Batch: WXX12383
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/19/18 09:56
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000002
Lab Project ID: 1183000

Collection Date: 06/18/18 14:52
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	3.22		2.00	2.00	mg/L	1		06/19/18 12:51

Batch Information

Analytical Batch: BOD6067
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/18 12:51
Container ID: 1183000002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/18/18 17:18

Batch Information

Analytical Batch: BTF16630
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/18/18 17:18
Container ID: 1183000002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1	U	1	1	MPN/100m	1		06/18/18 18:48
Total Coliform	2480		10	10	MPN/100m	10		06/18/18 18:48

Batch Information

Analytical Batch: BTF16632
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/18/18 18:48
Container ID: 1183000002-C

Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000002
Lab Project ID: 1183000

Collection Date: 06/18/18 14:52
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	8.40		2.00	0.620	mg/L	1		06/20/18 14:14

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/20/18 14:14
Container ID: 1183000002-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.691 J		1.00	0.310	mg/L	1		06/21/18 12:45

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:45
Container ID: 1183000002-D

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/19/18 11:00

Batch Information

Analytical Batch: WDA4310
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/19/18 11:00
Container ID: 1183000002-D

Prep Batch: WXX12382
Prep Method: METHOD
Prep Date/Time: 06/19/18 10:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0312 J		0.100	0.0250	mg/L	2		06/19/18 15:06
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/19/18 15:06

Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000002
Lab Project ID: 1183000

Collection Date: 06/18/18 14:52
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2703
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/19/18 15:06
Container ID: 1183000002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0732		0.0200	0.00500	mg/L	1		06/19/18 13:53

Batch Information

Analytical Batch: WDA4311
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/19/18 13:53
Container ID: 1183000002-D

Prep Batch: WXX12383
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/19/18 09:56
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/25/2018 4:45:10PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000003
Lab Project ID: 1183000

Collection Date: 06/18/18 15:00
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00	U	2.00	2.00	mg/L	1		06/19/18 12:51

Batch Information

Analytical Batch: BOD6067
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/18 12:51
Container ID: 1183000003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/18/18 17:18

Batch Information

Analytical Batch: BTF16630
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/18/18 17:18
Container ID: 1183000003-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1	U	1	1	MPN/100m	1		06/18/18 18:48
Total Coliform	980		1	1	MPN/100m	1		06/18/18 18:48

Batch Information

Analytical Batch: BTF16632
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/18/18 18:48
Container ID: 1183000003-C

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000003
Lab Project ID: 1183000

Collection Date: 06/18/18 15:00
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.27		1.02	0.316	mg/L	1		06/20/18 14:14

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/20/18 14:14
Container ID: 1183000003-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/21/18 12:46

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:46
Container ID: 1183000003-E

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/19/18 10:53

Batch Information

Analytical Batch: WDA4310
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/19/18 10:53
Container ID: 1183000003-D

Prep Batch: WXX12382
Prep Method: METHOD
Prep Date/Time: 06/19/18 10:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/19/18 15:08
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/19/18 15:08

Print Date: 06/25/2018 4:45:10PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183000003
Lab Project ID: 1183000

Collection Date: 06/18/18 15:00
Received Date: 06/18/18 16:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2703
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/19/18 15:08
Container ID: 1183000003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0225		0.0200	0.00500	mg/L	1		06/19/18 13:49

Batch Information

Analytical Batch: WDA4311
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/19/18 13:49
Container ID: 1183000003-D

Prep Batch: WXX12383
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/19/18 09:56
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/25/2018 4:45:10PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1781182 [BOD/6067]
Blank Lab ID: 1453448

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6067
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/19/2018 12:51:08PM

Print Date: 06/25/2018 4:45:12PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [BOD6067]
Blank Spike Lab ID: 1453449
Date Analyzed: 06/19/2018 12:51

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	216	109	(84.6-115.4

Batch Information

Analytical Batch: **BOD6067**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 06/25/2018 4:45:13PM

Method Blank

Blank ID: MB for HBN 1781161 [BTF/16630]
Blank Lab ID: 1453373

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16630
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/18/2018 5:18:00PM

Print Date: 06/25/2018 4:45:15PM

Method Blank

Blank ID: MB for HBN 1781163 [BTF/16632]
Blank Lab ID: 1453376

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16632
Analytical Method: SM21 9223B
Instrument:
Analyst: DSH
Analytical Date/Time: 6/18/2018 6:48:00PM

Print Date: 06/25/2018 4:45:17PM

Method Blank

Blank ID: MB for HBN 1781226 [STS/5915]
Blank Lab ID: 1453648

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/20/2018 2:14:20PM

Print Date: 06/25/2018 4:45:19PM

Duplicate Sample Summary

Original Sample ID: 1183021001
Duplicate Sample ID: 1453651
QC for Samples:
1183000001, 1183000002, 1183000003

Analysis Date: 06/20/2018 14:14
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	30.0	30.0	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/25/2018 4:45:20PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [STS5915]
Blank Spike Lab ID: 1453649
Date Analyzed: 06/20/2018 14:14

Spike Duplicate ID: LCSD for HBN 1183000 [STS5915]
Spike Duplicate Lab ID: 1453650
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.7	103	25	24.9	100	(75-125)	3.20	(< 5)

Batch Information

Analytical Batch: **STS5915**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Method Blank

Blank ID: MB for HBN 1781204 (WFI/2703)
Blank Lab ID: 1453555

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2703
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/19/2018 2:58:13PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [WFI2703]
Blank Spike Lab ID: 1453554
Date Analyzed: 06/19/2018 14:56

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.50	100	(70-130)
Nitrite-N	2.5	2.47	99	(90-110)
Total Nitrate/Nitrite-N	5	4.96	99	(90-110)

Batch Information

Analytical Batch: **WFI2703**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

Print Date: 06/25/2018 4:45:24PM

Matrix Spike Summary

Original Sample ID: 1183000003
MS Sample ID: 1453547 MS
MSD Sample ID: 1453548 MSD

Analysis Date: 06/19/2018 15:08
Analysis Date: 06/19/2018 15:10
Analysis Date: 06/19/2018 15:12
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.1	84	2.50	2.37	95	70-130	11.80	(< 25)
Nitrite-N	0.0500U	2.50	2.27	91	2.50	2.44	98	90-110	7.20	(< 25)

Batch Information

Analytical Batch: WFI2703
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/19/2018 3:10:28PM

Print Date: 06/25/2018 4:45:25PM

Method Blank

Blank ID: MB for HBN 1781175 [WXX/12382]
Blank Lab ID: 1453413

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0500U	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4310
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/19/2018 10:48:40AM

Prep Batch: WXX12382
Prep Method: METHOD
Prep Date/Time: 6/19/2018 10:00:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [WXX12382]
Blank Spike Lab ID: 1453414
Date Analyzed: 06/19/2018 10:50

Spike Duplicate ID: LCSD for HBN 1183000 [WXX12382]
Spike Duplicate Lab ID: 1453417
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.998	100	1	1.01	101	(75-125)	1.70	(< 25)

Batch Information

Analytical Batch: **WDA4310**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12382**
Prep Method: **METHOD**
Prep Date/Time: **06/19/2018 10:00**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1183000003
MS Sample ID: 1453415 MS
MSD Sample ID: 1453416 MSD

Analysis Date: 06/19/2018 10:53
Analysis Date: 06/19/2018 10:55
Analysis Date: 06/19/2018 10:56
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0500U	1.00	1.05	105	1.00	1.03	103	75-125	1.80	(< 25)

Batch Information

Analytical Batch: WDA4310
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/19/2018 10:55:22AM

Prep Batch: WXX12382
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/19/2018 10:00:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 06/25/2018 4:45:28PM

Method Blank

Blank ID: MB for HBN 1781180 [WXX/12383]
Blank Lab ID: 1453438

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

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

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4311
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/19/2018 1:47:17PM

Prep Batch: WXX12383
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/19/2018 9:56:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [WXX12383]
Blank Spike Lab ID: 1453439
Date Analyzed: 06/19/2018 13:48

Spike Duplicate ID: LCSD for HBN 1183000 [WXX12383]
Spike Duplicate Lab ID: 1453440
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.201	101	0.2	0.203	102	(85-115)	1.20	(< 25)

Batch Information

Analytical Batch: **WDA4311**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12383**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/19/2018 09:56**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183000003
MS Sample ID: 1453441 MS
MSD Sample ID: 1453442 MSD

Analysis Date: 06/19/2018 13:49
Analysis Date: 06/19/2018 13:50
Analysis Date: 06/19/2018 13:51
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

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

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0225	0.200	.213	95	0.200	0.216	97	75-125	1.30	(< 25)

Batch Information

Analytical Batch: WDA4311
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/19/2018 1:50:42PM

Prep Batch: WXX12383
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/19/2018 9:56:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/25/2018 4:45:32PM

Method Blank

Blank ID: MB for HBN 1781327 [WXX/12388]
Blank Lab ID: 1454141

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183000001, 1183000002, 1183000003

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/21/2018 12:28:18PM

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 6/20/2018 5:30:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183000 [WXX12388]
Blank Spike Lab ID: 1454142
Date Analyzed: 06/21/2018 12:29

Spike Duplicate ID: LCSD for HBN 1183000 [WXX12388]
Spike Duplicate Lab ID: 1454143
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.17	104	4	4.27	107	(75-125)	2.40	(< 25)

Batch Information

Analytical Batch: **WDA4313**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12388**
Prep Method: **METHOD**
Prep Date/Time: **06/20/2018 17:30**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183015002
MS Sample ID: 1454144 MS
MSD Sample ID: 1454145 MSD

Analysis Date: 06/21/2018 12:32
Analysis Date: 06/21/2018 12:33
Analysis Date: 06/21/2018 12:34
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183000001, 1183000002, 1183000003

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.422J	4.00	4.57	104	4.00	4.31	97	75-125	5.80	(< 25)

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/21/2018 12:33:33PM

Prep Batch: WXX12388
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/20/2018 5:30:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/25/2018 4:45:35PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECOR

1183000

Locations Nationwide
Alaska Maryland
New Jersey New York
North Carolina Florida

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Alward PHONE #: 243 5202

PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: Stantec QUOTE #: P.O. #: 2047 00415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	200.8 - BCRA + Cu/Zn				REMARKS/LOC ID
(1) A-F	SW1	6/18/18	12:36		6	G	1	1	1	1	1	1					
(2) A-F	SW2	↓	14:52		6	↓	1	1	1	1	1	1					
(3) A-F	SW3	↓	15:00		6	↓	1	1	1	1	1	1					

Section 5

	Date	Time	
Relinquished By: (1)	6/18/18	16:57	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/18/18	16:57	Received For Laboratory By: KEY

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 6.7 Dry or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

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

e-Sample Receipt Form

SGS Workorder #: **1183000**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		yes Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	
COC accompanied samples?	yes	
yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	no	Cooler ID: 1 @ 6.7 °C Therm. ID: D26
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	yes	**Samples taken 6/18/18 Earliest collection time 12:36**
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)? **Note: If times differ <1hr, record details & login per COC.	yes	
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
	n/a	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1183000001-A	No Preservative Required	OK			
1183000001-B	No Preservative Required	OK			
1183000001-C	Na2S2O3 for Chlorine Redu	OK			
1183000001-D	H2SO4 to pH < 2	OK			
1183000001-E	No Preservative Required	OK			
1183000001-F	Na2S2O3 for Chlorine Redu	OK			
1183000002-A	No Preservative Required	OK			
1183000002-B	No Preservative Required	OK			
1183000002-C	Na2S2O3 for Chlorine Redu	OK			
1183000002-D	H2SO4 to pH < 2	OK			
1183000002-E	No Preservative Required	OK			
1183000002-F	Na2S2O3 for Chlorine Redu	OK			
1183000003-A	No Preservative Required	OK			
1183000003-B	No Preservative Required	OK			
1183000003-C	Na2S2O3 for Chlorine Redu	OK			
1183000003-D	H2SO4 to pH < 2	OK			
1183000003-E	No Preservative Required	OK			
1183000003-F	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.
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.

Laboratory Report of Analysis

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

Report Number: **1183015**

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 Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183015**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

MB for HBN 1781276 [BOD/6068] (1453894) MB

5210-BOD- MB (0.36 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples>10X the MB are not significantly affected. Samples <10X the MB results may be biased high.

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
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.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW20	1183015001	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)
MW14A	1183015002	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)
MW14B	1183015003	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)
MW10	1183015004	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)
MW15	1183015005	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)
Shaw 1	1183015006	06/19/2018	06/19/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SW6020A	Metals by ICP-MS
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **MW20**
Lab Sample ID: 1183015001

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	17.0	ug/L
	Barium	162	ug/L
	Chromium	64.5	ug/L
	Copper	75.2	ug/L
	Lead	7.72	ug/L
	Mercury	0.254	ug/L
	Zinc	82.8	ug/L
Waters Department	Ammonia-N	0.288	mg/L
	Nitrate-N	0.185	mg/L

Client Sample ID: **MW14A**
Lab Sample ID: 1183015002

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	10.3	ug/L
	Barium	60.4	ug/L
	Chromium	17.8	ug/L
	Copper	26.2	ug/L
	Lead	5.09	ug/L
	Mercury	0.114J	ug/L
	Silver	0.680J	ug/L
	Zinc	59.1	ug/L
Waters Department	Ammonia-N	0.0592J	mg/L
	Nitrate-N	0.0944J	mg/L
	Total Kjeldahl Nitrogen	0.422J	mg/L

Client Sample ID: **MW14B**
Lab Sample ID: 1183015003

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	138	ug/L
	Barium	1680	ug/L
	Cadmium	2.38	ug/L
	Chromium	895	ug/L
	Copper	981	ug/L
	Lead	132	ug/L
	Mercury	2.11	ug/L
	Silver	1.10J	ug/L
	Zinc	1530	ug/L
Waters Department	Nitrate-N	0.216	mg/L
	Nitrite-N	0.0266J	mg/L

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

Detectable Results Summary

Client Sample ID: **MW10**
Lab Sample ID: 1183015004

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	2.10J	ug/L
	Barium	62.5	ug/L
	Chromium	7.17	ug/L
	Copper	11.6	ug/L
	Lead	1.51	ug/L
	Mercury	0.0936J	ug/L
	Zinc	15.2J	ug/L
Waters Department	Ammonia-N	0.149	mg/L
	Nitrate-N	0.0854J	mg/L

Client Sample ID: **MW15**
Lab Sample ID: 1183015005

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	20.7	ug/L
	Barium	129	ug/L
	Chromium	33.2	ug/L
	Copper	42.8	ug/L
	Lead	5.02	ug/L
	Mercury	0.116J	ug/L
	Zinc	50.5	ug/L
Waters Department	Ammonia-N	0.305	mg/L
	Total Kjeldahl Nitrogen	0.378J	mg/L

Client Sample ID: **Shaw 1**
Lab Sample ID: 1183015006

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	12	MPN/100mL
	Fecal Coliform	3.3	col/100mL
	Total Coliform	548	MPN/100mL
Waters Department	Ammonia-N	0.0423J	mg/L
	Total Kjeldahl Nitrogen	0.325J	mg/L
	Total Phosphorus	0.00980J	mg/L
	Total Suspended Solids	0.500J	mg/L

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

Results of **MW20**

Client Sample ID: **MW20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015001
Lab Project ID: 1183015

Collection Date: 06/19/18 10:35
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	17.0		5.00	1.50	ug/L	5		06/26/18 16:08
Barium	162		3.00	0.940	ug/L	5		06/26/18 16:08
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/26/18 16:08
Chromium	64.5		4.00	1.30	ug/L	5		06/26/18 16:08
Copper	75.2		6.00	1.80	ug/L	5		06/26/18 16:08
Lead	7.72		1.00	0.310	ug/L	5		06/26/18 16:08
Mercury	0.254		0.200	0.0620	ug/L	5		06/27/18 18:48
Selenium	10.0	U	20.0	6.20	ug/L	5		06/26/18 16:08
Silver	1.00	U	2.00	0.620	ug/L	5		06/26/18 16:08
Zinc	82.8		25.0	7.80	ug/L	5		06/26/18 16:08

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 16:08
Container ID: 1183015001-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Analytical Batch: MMS10218
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 06/27/18 18:48
Container ID: 1183015001-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW20**

Client Sample ID: **MW20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015001
Lab Project ID: 1183015

Collection Date: 06/19/18 10:35
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015001-A

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

Results of **MW20**

Client Sample ID: **MW20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015001
Lab Project ID: 1183015

Collection Date: 06/19/18 10:35
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/21/18 12:36

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:36
Container ID: 1183015001-C

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.288		0.100	0.0310	mg/L	1		06/20/18 10:05

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/20/18 10:05
Container ID: 1183015001-C

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 06/20/18 09:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.185		0.100	0.0250	mg/L	2		06/20/18 15:45
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/20/18 15:45

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:45
Container ID: 1183015001-B

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW14A**

Client Sample ID: **MW14A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015002
Lab Project ID: 1183015

Collection Date: 06/19/18 11:19
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	10.3		5.00	1.50	ug/L	5		06/26/18 17:02
Barium	60.4		3.00	0.940	ug/L	5		06/26/18 17:02
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/26/18 17:02
Chromium	17.8		4.00	1.30	ug/L	5		06/26/18 17:02
Copper	26.2		6.00	1.80	ug/L	5		06/26/18 17:02
Lead	5.09		1.00	0.310	ug/L	5		06/26/18 17:02
Mercury	0.114	J	0.200	0.0620	ug/L	5		06/26/18 17:02
Selenium	10.0	U	20.0	6.20	ug/L	5		06/26/18 17:02
Silver	0.680	J	2.00	0.620	ug/L	5		06/26/18 17:02
Zinc	59.1		25.0	7.80	ug/L	5		06/26/18 17:02

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:02
Container ID: 1183015002-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW14A**

Client Sample ID: **MW14A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015002
Lab Project ID: 1183015

Collection Date: 06/19/18 11:19
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015002-A

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

Results of **MW14A**

Client Sample ID: **MW14A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015002
Lab Project ID: 1183015

Collection Date: 06/19/18 11:19
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.422	J	1.00	0.310	mg/L	1		06/21/18 12:32

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:32
Container ID: 1183015002-C

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0592	J	0.100	0.0310	mg/L	1		06/20/18 10:07

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/20/18 10:07
Container ID: 1183015002-C

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 06/20/18 09:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0944	J	0.100	0.0250	mg/L	2		06/20/18 15:46
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:46

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:46
Container ID: 1183015002-B

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW14B**

Client Sample ID: **MW14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015003
Lab Project ID: 1183015

Collection Date: 06/19/18 11:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	138		5.00	1.50	ug/L	5		06/26/18 17:07
Barium	1680		3.00	0.940	ug/L	5		06/26/18 17:07
Cadmium	2.38		2.00	0.620	ug/L	5		06/26/18 17:07
Chromium	895		4.00	1.30	ug/L	5		06/26/18 17:07
Copper	981		6.00	1.80	ug/L	5		06/26/18 17:07
Lead	132		1.00	0.310	ug/L	5		06/26/18 17:07
Mercury	2.11		0.200	0.0620	ug/L	5		06/27/18 18:53
Selenium	10.0	U	20.0	6.20	ug/L	5		06/26/18 17:07
Silver	1.10	J	2.00	0.620	ug/L	5		06/26/18 17:07
Zinc	1530		25.0	7.80	ug/L	5		06/26/18 17:07

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:07
Container ID: 1183015003-C

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Analytical Batch: MMS10218
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 06/27/18 18:53
Container ID: 1183015003-C

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW14B**

Client Sample ID: **MW14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015003
Lab Project ID: 1183015

Collection Date: 06/19/18 11:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	100	U	100	100	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015003-A

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

Results of **MW14B**

Client Sample ID: **MW14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015003
Lab Project ID: 1183015

Collection Date: 06/19/18 11:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.216		0.100	0.0250	mg/L	2		06/20/18 15:48
Nitrite-N	0.0266	J	0.100	0.0250	mg/L	2		06/20/18 15:48

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:48
Container ID: 1183015003-B

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015004
Lab Project ID: 1183015

Collection Date: 06/19/18 14:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.10	J	5.00	1.50	ug/L	5		06/26/18 17:11
Barium	62.5		3.00	0.940	ug/L	5		06/26/18 17:11
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/26/18 17:11
Chromium	7.17		4.00	1.30	ug/L	5		06/26/18 17:11
Copper	11.6		6.00	1.80	ug/L	5		06/26/18 17:11
Lead	1.51		1.00	0.310	ug/L	5		06/26/18 17:11
Mercury	0.0936	J	0.200	0.0620	ug/L	5		06/26/18 17:11
Selenium	10.0	U	20.0	6.20	ug/L	5		06/26/18 17:11
Silver	1.00	U	2.00	0.620	ug/L	5		06/26/18 17:11
Zinc	15.2	J	25.0	7.80	ug/L	5		06/26/18 17:11

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:11
Container ID: 1183015004-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015004
Lab Project ID: 1183015

Collection Date: 06/19/18 14:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015004-A

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

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015004
Lab Project ID: 1183015

Collection Date: 06/19/18 14:30
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/21/18 12:37

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:37
Container ID: 1183015004-C

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.149		0.100	0.0310	mg/L	1		06/20/18 10:09

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/20/18 10:09
Container ID: 1183015004-C

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 06/20/18 09:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0854	J	0.100	0.0250	mg/L	2		06/20/18 15:50
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:50

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:50
Container ID: 1183015004-B

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015005
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	20.7		5.00	1.50	ug/L	5		06/26/18 17:16
Barium	129		3.00	0.940	ug/L	5		06/26/18 17:16
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:16
Chromium	33.2		4.00	1.30	ug/L	5		06/26/18 17:16
Copper	42.8		6.00	1.80	ug/L	5		06/26/18 17:16
Lead	5.02		1.00	0.310	ug/L	5		06/26/18 17:16
Mercury	0.116 J		0.200	0.0620	ug/L	5		06/26/18 17:16
Selenium	10.0 U		20.0	6.20	ug/L	5		06/26/18 17:16
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:16
Zinc	50.5		25.0	7.80	ug/L	5		06/26/18 17:16

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:16
Container ID: 1183015005-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015005
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015005-A

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

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015005
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.378	J	1.00	0.310	mg/L	1		06/21/18 12:38

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:38
Container ID: 1183015005-C

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.305		0.100	0.0310	mg/L	1		06/20/18 10:14

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/20/18 10:14
Container ID: 1183015005-C

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 06/20/18 09:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:52
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:52

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:52
Container ID: 1183015005-B

Results of **Shaw 1**

Client Sample ID: **Shaw 1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015006
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/20/18 19:20

Batch Information

Analytical Batch: BOD6068
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/20/18 19:20
Container ID: 1183015006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	3.3		1.67	1.67	col/100mL	1		06/19/18 17:56

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/19/18 17:56
Container ID: 1183015006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	12		1	1	MPN/100m	1		06/19/18 18:41
Total Coliform	548		1	1	MPN/100m	1		06/19/18 18:41

Batch Information

Analytical Batch: BTF16637
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/19/18 18:41
Container ID: 1183015006-B

Results of **Shaw 1**

Client Sample ID: **Shaw 1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015006
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.500	J	1.00	0.310	mg/L	1		06/20/18 14:14

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/20/18 14:14
Container ID: 1183015006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.325	J	1.00	0.310	mg/L	1		06/21/18 12:40

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/21/18 12:40
Container ID: 1183015006-D

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 06/20/18 17:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0423	J	0.100	0.0310	mg/L	1		06/20/18 10:15

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/20/18 10:15
Container ID: 1183015006-D

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 06/20/18 09:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:53
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/20/18 15:53

Print Date: 06/28/2018 2:07:00PM

J flagging is activated

Results of **Shaw 1**

Client Sample ID: **Shaw 1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183015006
Lab Project ID: 1183015

Collection Date: 06/19/18 15:00
Received Date: 06/19/18 17:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/20/18 15:53
Container ID: 1183015006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.00980	J	0.0200	0.00500	mg/L	1		06/22/18 16:40

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/22/18 16:40
Container ID: 1183015006-D

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/22/18 14:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1781276 [BOD/6068]
Blank Lab ID: 1453894

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015006

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6068
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/20/2018 7:20:44PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [BOD6068]
Blank Spike Lab ID: 1453895
Date Analyzed: 06/20/2018 19:20

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015006

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	210	106	(84.6-115.4

Batch Information

Analytical Batch: **BOD6068**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 06/28/2018 2:07:06PM

Method Blank

Blank ID: MB for HBN 1781201 [BTF/16634]
Blank Lab ID: 1453541

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015001, 1183015002, 1183015003, 1183015004, 1183015005, 1183015006

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16634
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/19/2018 5:56:00PM

Method Blank

Blank ID: MB for HBN 1781228 [BTF/16637]
Blank Lab ID: 1453661

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015006

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16637
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 6/19/2018 6:41:00PM

Method Blank

Blank ID: MB for HBN 1781545 [MXX/31688]
Blank Lab ID: 1455193

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015001, 1183015002, 1183015003, 1183015004, 1183015005

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Copper	3.00U	6.00	1.80	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.0896J	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L
Zinc	12.5U	25.0	7.80	ug/L

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 3:59:14PM

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [MXX31688]
Blank Spike Lab ID: 1455194
Date Analyzed: 06/26/2018 16:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015003, 1183015004, 1183015005

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1040	104	(84-116)
Barium	1000	1010	101	(86-114)
Cadmium	100	99.4	99	(87-115)
Chromium	400	442	110	(85-116)
Copper	1000	1060	106	(85-118)
Lead	1000	1070	107	(88-115)
Mercury	10	10.1	101	(70-124)
Selenium	1000	1020	102	(80-120)
Silver	100	102	102	(85-116)
Zinc	1000	1030	103	(83-119)

Batch Information

Analytical Batch: **MMS10217**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSH**

Prep Batch: **MXX31688**
Prep Method: **SW3010A**
Prep Date/Time: **06/26/2018 08:00**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455197 MS
MSD Sample ID: 1455198 MSD

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:13
Analysis Date: 06/26/2018 16:17
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015003, 1183015004, 1183015005

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	1000	1020	101	1000	1000	99	84-116	2.08	(< 20)
Barium	162	1000	1240	107	1000	1200	103	86-114	3.32	(< 20)
Cadmium	1.00U	100	99	99	100	97.2	97	87-115	1.87	(< 20)
Chromium	64.5	400	500	109	400	486	105	85-116	2.79	(< 20)
Copper	75.2	1000	1110	103	1000	1070	99	85-118	3.55	(< 20)
Lead	7.72	1000	1060	106	1000	1070	106	88-115	0.51	(< 20)
Mercury	0.313	10.0	10.2	99	10.0	10.4	101	70-124	1.78	(< 20)
Selenium	10.0U	1000	1010	101	1000	977	98	80-120	3.39	(< 20)
Silver	1.00U	100	102	102	100	101	101	85-116	0.35	(< 20)
Zinc	82.8	1000	1100	102	1000	1060	98	83-119	3.31	(< 20)

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:13:17PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/28/2018 2:07:20PM

Bench Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455196 BND
MSD Sample ID:

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:22
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015003, 1183015004, 1183015005

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	125	144	102				80-120		
Barium	162	2500	2700	101				80-120		
Cadmium	1.00U	1250	1220	98				80-120		
Chromium	64.5	1250	1390	106				80-120		
Copper	75.2	1250	1330	100				80-120		
Lead	7.72	1250	1310	104				80-120		
Mercury	0.313	25.0	24.7	98				80-120		
Selenium	10.0U	125	121	97				80-120		
Silver	1.00U	25.0	24.9	100				80-120		
Zinc	82.8	1250	1310	98				80-120		

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:22:40PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/28/2018 2:07:20PM

Method Blank

Blank ID: MB for HBN 1781226 [STS/5915]
Blank Lab ID: 1453648

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015006

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/20/2018 2:14:20PM

Print Date: 06/28/2018 2:07:22PM

Duplicate Sample Summary

Original Sample ID: 1183021001
Duplicate Sample ID: 1453651
QC for Samples:
1183015006

Analysis Date: 06/20/2018 14:14
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	30.0	30.0	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS5915
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/28/2018 2:07:24PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [STS5915]
Blank Spike Lab ID: 1453649
Date Analyzed: 06/20/2018 14:14

Spike Duplicate ID: LCSD for HBN 1183015 [STS5915]
Spike Duplicate Lab ID: 1453650
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015006

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.7	103	25	24.9	100	(75-125)	3.20	(< 5)

Batch Information

Analytical Batch: **STS5915**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Method Blank

Blank ID: MB for HBN 1781300 (WFI/2704)
Blank Lab ID: 1454010

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015001, 1183015002, 1183015003, 1183015004, 1183015005, 1183015006

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0268J	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/20/2018 3:39:47PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [WFI2704]
Blank Spike Lab ID: 1454002
Date Analyzed: 06/20/2018 15:38

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015003, 1183015004, 1183015005, 1183015006

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

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

Batch Information

Analytical Batch: **WFI2704**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

Print Date: 06/28/2018 2:07:30PM

Matrix Spike Summary

Original Sample ID: 1183015006
MS Sample ID: 1453996 MS
MSD Sample ID: 1453997 MSD

Analysis Date: 06/20/2018 15:53
Analysis Date: 06/20/2018 15:55
Analysis Date: 06/20/2018 15:57
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015003, 1183015004, 1183015005, 1183015006

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.45	98	2.50	2.52	101	70-130	2.80	(< 25)
Nitrite-N	0.0500U	2.50	2.5	100	2.50	2.52	101	90-110	0.81	(< 25)

Batch Information

Analytical Batch: WFI2704
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/20/2018 3:55:32PM

Print Date: 06/28/2018 2:07:31PM

Method Blank

Blank ID: MB for HBN 1781233 [WXX/12385]
Blank Lab ID: 1453684

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0500U	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/20/2018 9:54:01AM

Prep Batch: WXX12385
Prep Method: METHOD
Prep Date/Time: 6/20/2018 9:30:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [WXX12385]
Blank Spike Lab ID: 1453685
Date Analyzed: 06/20/2018 09:55

Spike Duplicate ID: LCSD for HBN 1183015 [WXX12385]
Spike Duplicate Lab ID: 1453686
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.990	99	1	0.986	99	(75-125)	0.38	(< 25)

Batch Information

Analytical Batch: **WDA4312**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12385**
Prep Method: **METHOD**
Prep Date/Time: **06/20/2018 09:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1183009002
MS Sample ID: 1453687 MS
MSD Sample ID: 1453688 MSD

Analysis Date: 06/20/2018 9:59
Analysis Date: 06/20/2018 10:00
Analysis Date: 06/20/2018 10:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.607	1.00	1.5	89	1.00	1.55	95	75-125	3.60	(< 25)

Batch Information

Analytical Batch: WDA4312
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/20/2018 10:00:45AM

Prep Batch: WXX12385
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/20/2018 9:30:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 06/28/2018 2:07:36PM

Method Blank

Blank ID: MB for HBN 1781327 [WXX/12388]
Blank Lab ID: 1454141

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/21/2018 12:28:18PM

Prep Batch: WXX12388
Prep Method: METHOD
Prep Date/Time: 6/20/2018 5:30:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [WXX12388]
Blank Spike Lab ID: 1454142
Date Analyzed: 06/21/2018 12:29

Spike Duplicate ID: LCSD for HBN 1183015 [WXX12388]
Spike Duplicate Lab ID: 1454143
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.17	104	4	4.27	107	(75-125)	2.40	(< 25)

Batch Information

Analytical Batch: **WDA4313**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12388**
Prep Method: **METHOD**
Prep Date/Time: **06/20/2018 17:30**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 06/28/2018 2:07:39PM

Matrix Spike Summary

Original Sample ID: 1183015002
MS Sample ID: 1454144 MS
MSD Sample ID: 1454145 MSD

Analysis Date: 06/21/2018 12:32
Analysis Date: 06/21/2018 12:33
Analysis Date: 06/21/2018 12:34
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015001, 1183015002, 1183015004, 1183015005, 1183015006

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.422J	4.00	4.57	104	4.00	4.31	97	75-125	5.80	(< 25)

Batch Information

Analytical Batch: WDA4313
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/21/2018 12:33:33PM

Prep Batch: WXX12388
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/20/2018 5:30:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/28/2018 2:07:41PM

Method Blank

Blank ID: MB for HBN 1781422 [WXX/12391]
Blank Lab ID: 1454606

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183015006

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

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 4:35:10PM

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/22/2018 2:31:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183015 [WXX12391]
Blank Spike Lab ID: 1454607
Date Analyzed: 06/22/2018 16:36

Spike Duplicate ID: LCSD for HBN 1183015 [WXX12391]
Spike Duplicate Lab ID: 1454608
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183015006

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.192	96	0.2	0.189	94	(85-115)	1.60	(< 25)

Batch Information

Analytical Batch: **WDA4315**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12391**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/22/2018 14:31**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183097004
MS Sample ID: 1454609 MS
MSD Sample ID: 1454610 MSD

QC for Samples: 1183015006

Analysis Date: 06/22/2018 16:46
Analysis Date: 06/22/2018 16:47
Analysis Date: 06/22/2018 16:48
Matrix: Water (Surface, Eff., Ground)

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

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.176	0.200	.368	96	0.200	0.377	101	75-125	2.50	(< 25)

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 4:47:41PM

Prep Batch: WXX12391
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/22/2018 2:31:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/28/2018 2:07:46PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

A N I 1183015

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

Page ____ of ____

Section 1

CLIENT: Stantec

CONTACT: Jake Allward — PHONE #: 343-5202

PROJECT NAME: — PROJECT/ PWSID/ PERMIT#:

REPORTS TO: — E-MAIL: jake.allward@stantec.com

INVOICE TO: Stantec — QUOTE #: — P.O. #: 204700415

Section 2

Section 3 — Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	9056 - Nitrate/Nitrite	4500 - TKN/Ammonia	6020A - RCRA + Cu/Zn	2540G - Total Volatile Solids	Fecal Coliform	TKN/Ammonia/ Tphos	BOD	TSS	Total Coliform (Quanti-Tray) 1X/wk		REMARKS/LOC ID
1 A-D	MW20	6/19/18	10:35		4	G	1	1	1		1						
2 A-D	MW14A		11:19		4		1	1	1		1						
3 A-C	MW14B		11:30		3		1		1		1						
4 A-D	MW10		14:30		4		1	1	1		1						
5 A-D	MW15		15:00		4		1	1	1		1						
6 A-F	Shaw1		13:04		6		1				1	1	1	1	1		

Section 5

	Date	Time	
Relinquished By: (1)	6/19/18	17:05	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/19/18	17:05	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.6 D30 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

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

e-Sample Receipt Form

SGS Workorder #: **1183015**

1 1 8 3 0 1 5

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		n/a Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	hand delivered
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 3.6 °C Therm. ID: D30
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
		n/a ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1183015001-A	Na2S2O3 for Chlorine Redu	OK			
1183015001-B	No Preservative Required	OK			
1183015001-C	H2SO4 to pH < 2	OK			
1183015001-D	HNO3 to pH < 2	OK			
1183015002-A	Na2S2O3 for Chlorine Redu	OK			
1183015002-B	No Preservative Required	OK			
1183015002-C	H2SO4 to pH < 2	OK			
1183015002-D	HNO3 to pH < 2	OK			
1183015003-A	Na2S2O3 for Chlorine Redu	OK			
1183015003-B	No Preservative Required	OK			
1183015003-C	HNO3 to pH < 2	OK			
1183015004-A	Na2S2O3 for Chlorine Redu	OK			
1183015004-B	No Preservative Required	OK			
1183015004-C	H2SO4 to pH < 2	OK			
1183015004-D	HNO3 to pH < 2	OK			
1183015005-A	Na2S2O3 for Chlorine Redu	OK			
1183015005-B	No Preservative Required	OK			
1183015005-C	H2SO4 to pH < 2	OK			
1183015005-D	HNO3 to pH < 2	OK			
1183015006-A	Na2S2O3 for Chlorine Redu	OK			
1183015006-B	Na2S2O3 for Chlorine Redu	OK			
1183015006-C	No Preservative Required	OK			
1183015006-D	H2SO4 to pH < 2	OK			
1183015006-E	No Preservative Required	OK			
1183015006-F	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.
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.

Laboratory Report of Analysis

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

Report Number: **1183062**

Client Project: **20470045 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 Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183062**
Project Name/Site: **20470045 Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
U	Indicates the analyte was analyzed for but not detected.

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW2B	1183062001	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
B1	1183062002	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
B3	1183062003	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
MW6	1183062004	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
B4	1183062005	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
SW7	1183062006	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
SW4	1183062007	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
SW6	1183062008	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
SW5	1183062009	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)
Dup 1	1183062010	06/20/2018	06/20/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SW6020A	Metals by ICP-MS
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **MW2B**
Lab Sample ID: 1183062001

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	91.0	ug/L
	Barium	326	ug/L
	Chromium	25.2	ug/L
	Copper	57.0	ug/L
	Lead	10.9	ug/L
	Mercury	0.0826J	ug/L
	Selenium	9.24J	ug/L
	Zinc	76.6	ug/L
Waters Department	Ammonia-N	0.108	mg/L
	Nitrate-N	0.0328J	mg/L
	Total Kjeldahl Nitrogen	1.34	mg/L

Client Sample ID: **B1**
Lab Sample ID: 1183062002

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	6.00	ug/L
	Barium	12.4	ug/L
	Mercury	0.0667J	ug/L
Waters Department	Ammonia-N	0.0839J	mg/L
	Nitrate-N	0.0844J	mg/L

Client Sample ID: **B3**
Lab Sample ID: 1183062003

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	9.88	ug/L
	Barium	12.1	ug/L
	Copper	2.71J	ug/L
	Lead	0.494J	ug/L
Microbiology Laboratory	Fecal Coliform	17	col/100mL
Waters Department	Ammonia-N	0.0813J	mg/L

Client Sample ID: **MW6**
Lab Sample ID: 1183062004

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	12.7	ug/L
	Barium	10.7	ug/L
Waters Department	Ammonia-N	0.0882J	mg/L
	Nitrate-N	0.0266J	mg/L

Client Sample ID: **B4**
Lab Sample ID: 1183062005

	Parameter	Result	Units
Metals by ICP/MS	Barium	14.7	ug/L
	Copper	2.78J	ug/L
	Lead	0.457J	ug/L
Waters Department	Nitrate-N	1.42	mg/L

Client Sample ID: **SW7**
Lab Sample ID: 1183062006

	Parameter	Result	Units
Microbiology Laboratory	Total Coliform	3080	MPN/100mL
Waters Department	Total Kjeldahl Nitrogen	0.410J	mg/L

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

Detectable Results Summary

Client Sample ID: **SW4**
Lab Sample ID: 1183062007
Microbiology Laboratory
Waters Department

Parameter	Result	Units
E. Coli	1	MPN/100mL
Fecal Coliform	2.0	col/100mL
Total Coliform	24200	MPN/100mL
Total Suspended Solids	1.12	mg/L

Client Sample ID: **SW6**
Lab Sample ID: 1183062008
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Total Coliform	1986	MPN/100mL
Ammonia-N	0.0346J	mg/L

Client Sample ID: **SW5**
Lab Sample ID: 1183062009
Microbiology Laboratory
Waters Department

Parameter	Result	Units
E. Coli	5	MPN/100mL
Fecal Coliform	17	col/100mL
Total Coliform	2420	MPN/100mL
Ammonia-N	0.0908J	mg/L
Total Kjeldahl Nitrogen	0.487J	mg/L
Total Suspended Solids	4.95	mg/L

Client Sample ID: **Dup 1**
Lab Sample ID: 1183062010
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	2.39	mg/L
E. Coli	4	MPN/100mL
Fecal Coliform	151	col/100mL
Total Coliform	2140	MPN/100mL
Total Kjeldahl Nitrogen	0.509J	mg/L
Total Suspended Solids	3.83	mg/L

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

Results of **MW2B**

Client Sample ID: **MW2B**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062001
Lab Project ID: 1183062

Collection Date: 06/20/18 10:44
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	91.0		5.00	1.50	ug/L	5		06/26/18 17:30
Barium	326		3.00	0.940	ug/L	5		06/26/18 17:30
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:30
Chromium	25.2		4.00	1.30	ug/L	5		06/26/18 17:30
Copper	57.0		6.00	1.80	ug/L	5		06/26/18 17:30
Lead	10.9		1.00	0.310	ug/L	5		06/26/18 17:30
Mercury	0.0826 J		0.200	0.0620	ug/L	5		06/26/18 17:30
Selenium	9.24 J		20.0	6.20	ug/L	5		06/26/18 17:30
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:30
Zinc	76.6		25.0	7.80	ug/L	5		06/26/18 17:30

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:30
Container ID: 1183062001-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **MW2B**

Client Sample ID: **MW2B**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062001
Lab Project ID: 1183062

Collection Date: 06/20/18 10:44
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	6.25	U	6.25	6.25	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062001-A

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

Results of **MW2B**

Client Sample ID: **MW2B**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062001
Lab Project ID: 1183062

Collection Date: 06/20/18 10:44
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.34		1.00	0.310	mg/L	1		06/26/18 10:11

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:11
Container ID: 1183062001-B

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.108		0.100	0.0310	mg/L	1		06/22/18 10:57

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 10:57
Container ID: 1183062001-B

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0328	J	0.100	0.0250	mg/L	2		06/21/18 13:28
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:28

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:28
Container ID: 1183062001-C

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062002
Lab Project ID: 1183062

Collection Date: 06/20/18 11:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	6.00		5.00	1.50	ug/L	5		06/26/18 11:56
Barium	12.4		3.00	0.940	ug/L	5		06/26/18 11:56
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 11:56
Chromium	2.00 U		4.00	1.30	ug/L	5		06/26/18 11:56
Copper	3.00 U		6.00	1.80	ug/L	5		06/26/18 11:56
Lead	0.500 U		1.00	0.310	ug/L	5		06/26/18 11:56
Mercury	0.0667 J		0.200	0.0620	ug/L	5		06/26/18 11:56
Selenium	10.0 U		20.0	6.20	ug/L	5		06/26/18 11:56
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 11:56
Zinc	12.5 U		25.0	7.80	ug/L	5		06/26/18 11:56

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 11:56
Container ID: 1183062002-D

Prep Batch: MXX31685
Prep Method: SW3010A
Prep Date/Time: 06/25/18 14:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062002
Lab Project ID: 1183062

Collection Date: 06/20/18 11:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062002-A

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

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062002
Lab Project ID: 1183062

Collection Date: 06/20/18 11:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/26/18 10:12

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:12
Container ID: 1183062002-B

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0839	J	0.100	0.0310	mg/L	1		06/22/18 10:59

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 10:59
Container ID: 1183062002-B

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0844	J	0.100	0.0250	mg/L	2		06/21/18 13:30
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:30

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:30
Container ID: 1183062002-C

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **B3**

Client Sample ID: **B3**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062003
Lab Project ID: 1183062

Collection Date: 06/20/18 11:23
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	9.88		5.00	1.50	ug/L	5		06/26/18 12:01
Barium	12.1		3.00	0.940	ug/L	5		06/26/18 12:01
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 12:01
Chromium	2.00 U		4.00	1.30	ug/L	5		06/26/18 12:01
Copper	2.71 J		6.00	1.80	ug/L	5		06/26/18 12:01
Lead	0.494 J		1.00	0.310	ug/L	5		06/26/18 12:01
Mercury	0.100 U		0.200	0.0620	ug/L	5		06/26/18 12:01
Selenium	10.0 U		20.0	6.20	ug/L	5		06/26/18 12:01
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 12:01
Zinc	12.5 U		25.0	7.80	ug/L	5		06/26/18 12:01

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 12:01
Container ID: 1183062003-D

Prep Batch: MXX31685
Prep Method: SW3010A
Prep Date/Time: 06/25/18 14:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B3**

Client Sample ID: **B3**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062003
Lab Project ID: 1183062

Collection Date: 06/20/18 11:23
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	17		1.67	1.67	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062003-A

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

Results of **B3**

Client Sample ID: **B3**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062003
Lab Project ID: 1183062

Collection Date: 06/20/18 11:23
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/26/18 10:16

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:16
Container ID: 1183062003-B

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0813	J	0.100	0.0310	mg/L	1		06/22/18 11:04

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:04
Container ID: 1183062003-B

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:32
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:32

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:32
Container ID: 1183062003-C

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062004
Lab Project ID: 1183062

Collection Date: 06/20/18 11:58
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	12.7		5.00	1.50	ug/L	5		06/26/18 12:06
Barium	10.7		3.00	0.940	ug/L	5		06/26/18 12:06
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 12:06
Chromium	2.00 U		4.00	1.30	ug/L	5		06/26/18 12:06
Copper	3.00 U		6.00	1.80	ug/L	5		06/26/18 12:06
Lead	0.500 U		1.00	0.310	ug/L	5		06/26/18 12:06
Mercury	0.100 U		0.200	0.0620	ug/L	5		06/26/18 12:06
Selenium	10.0 U		20.0	6.20	ug/L	5		06/26/18 12:06
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 12:06
Zinc	12.5 U		25.0	7.80	ug/L	5		06/26/18 12:06

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 12:06
Container ID: 1183062004-D

Prep Batch: MXX31685
Prep Method: SW3010A
Prep Date/Time: 06/25/18 14:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062004
Lab Project ID: 1183062

Collection Date: 06/20/18 11:58
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062004-A

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

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062004
Lab Project ID: 1183062

Collection Date: 06/20/18 11:58
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/26/18 10:18

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:18
Container ID: 1183062004-B

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0882	J	0.100	0.0310	mg/L	1		06/22/18 11:05

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:05
Container ID: 1183062004-B

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0266	J	0.100	0.0250	mg/L	2		06/21/18 13:33
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:33

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:33
Container ID: 1183062004-C

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062005
Lab Project ID: 1183062

Collection Date: 06/20/18 12:25
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	ug/L	5		06/26/18 12:10
Barium	14.7		3.00	0.940	ug/L	5		06/26/18 12:10
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/26/18 12:10
Chromium	2.00	U	4.00	1.30	ug/L	5		06/26/18 12:10
Copper	2.78	J	6.00	1.80	ug/L	5		06/26/18 12:10
Lead	0.457	J	1.00	0.310	ug/L	5		06/26/18 12:10
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/26/18 12:10
Selenium	10.0	U	20.0	6.20	ug/L	5		06/26/18 12:10
Silver	1.00	U	2.00	0.620	ug/L	5		06/26/18 12:10
Zinc	12.5	U	25.0	7.80	ug/L	5		06/26/18 12:10

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 12:10
Container ID: 1183062005-D

Prep Batch: MXX31685
Prep Method: SW3010A
Prep Date/Time: 06/25/18 14:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062005
Lab Project ID: 1183062

Collection Date: 06/20/18 12:25
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062005-A

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

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062005
Lab Project ID: 1183062

Collection Date: 06/20/18 12:25
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/26/18 10:19

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:19
Container ID: 1183062005-B

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/22/18 11:07

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:07
Container ID: 1183062005-B

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.42		0.100	0.0250	mg/L	2		06/21/18 13:35
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:35

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:35
Container ID: 1183062005-C

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062006
Lab Project ID: 1183062

Collection Date: 06/20/18 13:39
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/21/18 16:39

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/18 16:39
Container ID: 1183062006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/20/18 19:13
Total Coliform	3080		10	10	MPN/100m	10		06/20/18 19:13

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/20/18 19:13
Container ID: 1183062006-B

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062006
Lab Project ID: 1183062

Collection Date: 06/20/18 13:39
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.510	U	1.02	0.316	mg/L	1		06/22/18 15:26

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/22/18 15:26
Container ID: 1183062006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.410	J	1.00	0.310	mg/L	1		06/26/18 10:23

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:23
Container ID: 1183062006-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500	U	0.100	0.0310	mg/L	1		06/22/18 11:12

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:12
Container ID: 1183062006-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:46
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:46

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062006
Lab Project ID: 1183062

Collection Date: 06/20/18 13:39
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:46
Container ID: 1183062006-D

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

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062007
Lab Project ID: 1183062

Collection Date: 06/20/18 14:04
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00	U	2.00	2.00	mg/L	1		06/21/18 16:39

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/18 16:39
Container ID: 1183062007-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	2.0		2.00	2.00	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062007-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/20/18 19:13
Total Coliform	24200		10	10	MPN/100m	10		06/20/18 19:13

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/20/18 19:13
Container ID: 1183062007-B

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062007
Lab Project ID: 1183062

Collection Date: 06/20/18 14:04
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.12		1.02	0.316	mg/L	1		06/22/18 15:26

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/22/18 15:26
Container ID: 1183062007-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/26/18 10:24

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:24
Container ID: 1183062007-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/22/18 11:14

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:14
Container ID: 1183062007-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:47
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:47

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062007
Lab Project ID: 1183062

Collection Date: 06/20/18 14:04
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:47
Container ID: 1183062007-D

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

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062008
Lab Project ID: 1183062

Collection Date: 06/20/18 14:34
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/21/18 16:39

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/18 16:39
Container ID: 1183062008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/20/18 19:13
Total Coliform	1986		1	1	MPN/100m	1		06/20/18 19:13

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/20/18 19:13
Container ID: 1183062008-B

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062008
Lab Project ID: 1183062

Collection Date: 06/20/18 14:34
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.505	U	1.01	0.313	mg/L	1		06/22/18 15:26

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/22/18 15:26
Container ID: 1183062008-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/26/18 10:26

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:26
Container ID: 1183062008-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0346	J	0.100	0.0310	mg/L	1		06/22/18 11:15

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:15
Container ID: 1183062008-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:49
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/21/18 13:49

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062008
Lab Project ID: 1183062

Collection Date: 06/20/18 14:34
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:49
Container ID: 1183062008-D

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

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062009
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/21/18 16:39

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/18 16:39
Container ID: 1183062009-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	17		1.67	1.67	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062009-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	5		1	1	MPN/100m	1		06/20/18 19:13
Total Coliform	2420		1	1	MPN/100m	1		06/20/18 19:13

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/20/18 19:13
Container ID: 1183062009-B

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062009
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	4.95		1.01	0.313	mg/L	1		06/22/18 15:26

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/22/18 15:26
Container ID: 1183062009-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.487 J		1.00	0.310	mg/L	1		06/26/18 10:27

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:27
Container ID: 1183062009-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0908 J		0.100	0.0310	mg/L	1		06/22/18 11:17

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:17
Container ID: 1183062009-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:51
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:51

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062009
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:51
Container ID: 1183062009-D

Results of **Dup 1**

Client Sample ID: **Dup 1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062010
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.39		2.00	2.00	mg/L	1		06/21/18 16:39

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/18 16:39
Container ID: 1183062010-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	151		1.64	1.64	col/100mL	1		06/20/18 12:43

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Analyst: DSH
Analytical Date/Time: 06/20/18 12:43
Container ID: 1183062010-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		06/20/18 19:13
Total Coliform	2140		10	10	MPN/100m	10		06/20/18 19:13

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/20/18 19:13
Container ID: 1183062010-B

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **Dup 1**

Client Sample ID: **Dup 1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062010
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.83		1.06	0.330	mg/L	1		06/22/18 15:26

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/22/18 15:26
Container ID: 1183062010-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.509 J		1.00	0.310	mg/L	1		06/26/18 10:28

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:28
Container ID: 1183062010-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/22/18 11:19

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:19
Container ID: 1183062010-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:53
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/21/18 13:53

Print Date: 06/27/2018 3:35:36PM

J flagging is activated

Results of **Dup 1**

Client Sample ID: **Dup 1**
Client Project ID: **20470045 Wasilla WWTP**
Lab Sample ID: 1183062010
Lab Project ID: 1183062

Collection Date: 06/20/18 15:01
Received Date: 06/20/18 17:09
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/21/18 13:53
Container ID: 1183062010-D

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

Method Blank

Blank ID: MB for HBN 1781350 [BOD/6070]
Blank Lab ID: 1454239

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6070
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/21/2018 4:39:46PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [BOD6070]
Blank Spike Lab ID: 1454240
Date Analyzed: 06/21/2018 16:39

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	201	102	(84.6-115.4

Batch Information

Analytical Batch: **BOD6070**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 06/27/2018 3:35:42PM

Method Blank

Blank ID: MB for HBN 1781292 [BTF/16640]
Blank Lab ID: 1453976

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16640
Analytical Method: SM21 9223B
Instrument:
Analyst: DSH
Analytical Date/Time: 6/20/2018 7:13:00PM

Print Date: 06/27/2018 3:35:45PM

Method Blank

Blank ID: MB for HBN 1781296 [BTF/16641]
Blank Lab ID: 1453986

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/20/2018 12:43:00PM

Print Date: 06/27/2018 3:35:47PM

Method Blank

Blank ID: MB for HBN 1781296 [BTF/16641]
Blank Lab ID: 1453988

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16641
Analytical Method: SM21 9222D
Instrument:
Analyst: DSH
Analytical Date/Time: 6/20/2018 12:43:00PM

Print Date: 06/27/2018 3:35:47PM

Method Blank

Blank ID: MB for HBN 1781477 [MXX/31685]
Blank Lab ID: 1454898

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062002, 1183062003, 1183062004, 1183062005

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Copper	3.00U	6.00	1.80	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.100U	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L
Zinc	12.5U	25.0	7.80	ug/L

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 11:00:25AM

Prep Batch: MXX31685
Prep Method: SW3010A
Prep Date/Time: 6/25/2018 2:30:50PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [MXX31685]
Blank Spike Lab ID: 1454899
Date Analyzed: 06/26/2018 11:05

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062002, 1183062003, 1183062004, 1183062005

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1030	103	(84-116)
Barium	1000	1050	105	(86-114)
Cadmium	100	102	102	(87-115)
Chromium	400	416	104	(85-116)
Copper	1000	1040	104	(85-118)
Lead	1000	1050	105	(88-115)
Mercury	10	10.3	103	(70-124)
Selenium	1000	1020	102	(80-120)
Silver	100	105	105	(85-116)
Zinc	1000	1030	103	(83-119)

Batch Information

Analytical Batch: **MMS10217**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSH**

Prep Batch: **MXX31685**
Prep Method: **SW3010A**
Prep Date/Time: **06/25/2018 14:30**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1454900
MS Sample ID: 1454901 MS
MSD Sample ID: 1454902 MSD

Analysis Date: 06/26/2018 11:09
Analysis Date: 06/26/2018 11:14
Analysis Date: 06/26/2018 11:19
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062002, 1183062003, 1183062004, 1183062005

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	2.50U	1000	984	98	1000	1010	101	84-116	2.11	(< 20)
Barium	45.0	1000	1090	104	1000	1080	104	86-114	0.19	(< 20)
Cadmium	1.00U	100	99.5	100	100	101	101	87-115	1.04	(< 20)
Chromium	2.00U	400	413	103	400	415	104	85-116	0.45	(< 20)
Copper	2.11J	1000	1020	102	1000	1020	102	85-118	0.12	(< 20)
Lead	0.500U	1000	1060	106	1000	1060	106	88-115	0.38	(< 20)
Mercury	0.0810J	10.0	10.1	100	10.0	10.2	102	70-124	1.62	(< 20)
Selenium	10.0U	1000	969	97	1000	990	99	80-120	2.14	(< 20)
Silver	1.00U	100	103	103	100	106	106	85-116	2.21	(< 20)
Zinc	24.5J	1000	1020	100	1000	1020	100	83-119	0.09	(< 20)

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 11:14:29AM

Prep Batch: MXX31685
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/25/2018 2:30:50PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:35:56PM

Method Blank

Blank ID: MB for HBN 1781545 [MXX/31688]
Blank Lab ID: 1455193

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062001

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Copper	3.00U	6.00	1.80	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.0896J	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L
Zinc	12.5U	25.0	7.80	ug/L

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 3:59:14PM

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [MXX31688]
Blank Spike Lab ID: 1455194
Date Analyzed: 06/26/2018 16:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1040	104	(84-116)
Barium	1000	1010	101	(86-114)
Cadmium	100	99.4	99	(87-115)
Chromium	400	442	110	(85-116)
Copper	1000	1060	106	(85-118)
Lead	1000	1070	107	(88-115)
Mercury	10	10.1	101	(70-124)
Selenium	1000	1020	102	(80-120)
Silver	100	102	102	(85-116)
Zinc	1000	1030	103	(83-119)

Batch Information

Analytical Batch: **MMS10217**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSH**

Prep Batch: **MXX31688**
Prep Method: **SW3010A**
Prep Date/Time: **06/26/2018 08:00**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455197 MS
MSD Sample ID: 1455198 MSD

QC for Samples: 1183062001

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:13
Analysis Date: 06/26/2018 16:17
Matrix: Water (Surface, Eff., Ground)

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	1000	1020	101	1000	1000	99	84-116	2.08	(< 20)
Barium	162	1000	1240	107	1000	1200	103	86-114	3.32	(< 20)
Cadmium	1.00U	100	99	99	100	97.2	97	87-115	1.87	(< 20)
Chromium	64.5	400	500	109	400	486	105	85-116	2.79	(< 20)
Copper	75.2	1000	1110	103	1000	1070	99	85-118	3.55	(< 20)
Lead	7.72	1000	1060	106	1000	1070	106	88-115	0.51	(< 20)
Mercury	0.313	10.0	10.2	99	10.0	10.4	101	70-124	1.78	(< 20)
Selenium	10.0U	1000	1010	101	1000	977	98	80-120	3.39	(< 20)
Silver	1.00U	100	102	102	100	101	101	85-116	0.35	(< 20)
Zinc	82.8	1000	1100	102	1000	1060	98	83-119	3.31	(< 20)

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:13:17PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:36:03PM

Bench Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455196 BND
MSD Sample ID:

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:22
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	125	144	102				80-120		
Barium	162	2500	2700	101				80-120		
Cadmium	1.00U	1250	1220	98				80-120		
Chromium	64.5	1250	1390	106				80-120		
Copper	75.2	1250	1330	100				80-120		
Lead	7.72	1250	1310	104				80-120		
Mercury	0.313	25.0	24.7	98				80-120		
Selenium	10.0U	125	121	97				80-120		
Silver	1.00U	25.0	24.9	100				80-120		
Zinc	82.8	1250	1310	98				80-120		

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:22:40PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:36:03PM

Method Blank

Blank ID: MB for HBN 1781372 [STS/5916]
Blank Lab ID: 1454351

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/22/2018 3:26:19PM

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

Duplicate Sample Summary

Original Sample ID: 1183022001
Duplicate Sample ID: 1454354
QC for Samples:

Analysis Date: 06/22/2018 15:26
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	640	650	mg/L	1.60	(< 5)

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/27/2018 3:36:06PM

Duplicate Sample Summary

Original Sample ID: 1183054001
Duplicate Sample ID: 1454355
Analysis Date: 06/22/2018 15:26
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	148	153	mg/L	3.30	(< 5)

Batch Information

Analytical Batch: STS5916
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/27/2018 3:36:06PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [STS5916]
Blank Spike Lab ID: 1454352
Date Analyzed: 06/22/2018 15:26

Spike Duplicate ID: LCSD for HBN 1183062 [STS5916]
Spike Duplicate Lab ID: 1454353
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.2	101	25	25.8	103	(75-125)	2.40	(< 5)

Batch Information

Analytical Batch: **STS5916**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Method Blank

Blank ID: MB for HBN 1781338 (WFI/2705) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1454205

QC for Samples:
1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0362J	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0362J	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/21/2018 1:23:28PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [WFI2705]
Blank Spike Lab ID: 1454190
Date Analyzed: 06/21/2018 13:21

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.41	96	(70-130)
Nitrite-N	2.5	2.49	100	(90-110)
Total Nitrate/Nitrite-N	5	4.90	98	(90-110)

Batch Information

Analytical Batch: **WFI2705**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

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

Matrix Spike Summary

Original Sample ID: 1183062005
MS Sample ID: 1454188 MS
MSD Sample ID: 1454189 MSD

Analysis Date: 06/21/2018 13:35
Analysis Date: 06/21/2018 13:37
Analysis Date: 06/21/2018 13:39
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	1.42	2.50	3.82	96	2.50	3.93	100	70-130	2.80	(< 25)
Nitrite-N	0.0500U	2.50	2.44	98	2.50	2.43	97	90-110	0.53	(< 25)

Batch Information

Analytical Batch: WFI2705
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/21/2018 1:37:29PM

Print Date: 06/27/2018 3:36:14PM

Method Blank

Blank ID: MB for HBN 1781379 [WXX/12389]
Blank Lab ID: 1454389

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0500U	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 10:52:20AM

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 6/22/2018 9:45:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [WXX12389]
Blank Spike Lab ID: 1454390
Date Analyzed: 06/22/2018 10:54

Spike Duplicate ID: LCSD for HBN 1183062 [WXX12389]
Spike Duplicate Lab ID: 1454391
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.994	99	1	0.994	99	(75-125)	0.04	(< 25)

Batch Information

Analytical Batch: **WDA4314**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12389**
Prep Method: **METHOD**
Prep Date/Time: **06/22/2018 09:45**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1183062002
MS Sample ID: 1454392 MS
MSD Sample ID: 1454393 MSD

Analysis Date: 06/22/2018 10:59
Analysis Date: 06/22/2018 11:00
Analysis Date: 06/22/2018 11:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0839J	1.00	1.04	95	1.00	1.01	92	75-125	2.90	(< 25)

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 11:00:43AM

Prep Batch: WXX12389
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/22/2018 9:45:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 06/27/2018 3:36:19PM

Method Blank

Blank ID: MB for HBN 1781564 [WXX/12395]
Blank Lab ID: 1455291

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2018 10:07:39AM

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 6/25/2018 3:20:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183062 [WXX12395]
Blank Spike Lab ID: 1455292
Date Analyzed: 06/26/2018 10:08

Spike Duplicate ID: LCSD for HBN 1183062 [WXX12395]
Spike Duplicate Lab ID: 1455293
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.19	105	4	4.17	104	(75-125)	0.34	(< 25)

Batch Information

Analytical Batch: **WDA4317**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12395**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2018 15:20**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183062002
MS Sample ID: 1455294 MS
MSD Sample ID: 1455295 MSD

Analysis Date: 06/26/2018 10:12
Analysis Date: 06/26/2018 10:14
Analysis Date: 06/26/2018 10:15
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183062001, 1183062002, 1183062003, 1183062004, 1183062005, 1183062006, 1183062007, 1183062008, 1183062009, 1183062010

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	4.27	107	4.00	4.22	106	75-125	1.10	(< 25)

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2018 10:14:12AM

Prep Batch: WXX12395
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/25/2018 3:20:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:36:24PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1183062

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Allward PHONE #: 348-5502

PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#: 20470045

REPORTS TO: E-MAIL: jake.allward@stantec.com

INVOICE TO: Stantec QUOTE #: P.O. #: 20470045

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	6020A - RCRA + Cu/Zn	TKN/Ammonia			REMARKS/LOC ID
1 A-D	MW2B	6/20/18	10:44		4	G			1			1	1	1			
2 A-D	B1		11:01		4				1			1	1	1			
3 A-D	B3		11:23		4				1			1	1	1			
4 A-D	MW6		11:58		4				1			1	1	1			
5 A-D	B4		12:25		4				1			1	1	1			
6 A-F	SW1		13:39		6		1	1	1	1	1	1					
7 A-F	SW4		14:04		6		1	1	1	1	1	1					
8 A-F	SW6		14:34		6		1	1	1	1	1	1					
9 A-F	SW5		15:01		6		1	1	1	1	1	1					
10 A-F																	

Section 3 — Preservative

Section 5

	Date	Time	
Relinquished By: (1)	6/20	17:08	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	6/20/18	17:09	Received For Laboratory By:

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID: _____

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 1.3 D42; 4.4 D30 or Ambient [ ]

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

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

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

62 of 65

F083-Blank_COC_Templates_2015-03-19

e-Sample Receipt Form

SGS Workorder #: **1183062**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		n/a Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	hand delivered
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 1.3 °C Therm. ID: D42
	yes	Cooler ID: 2 @ 4.4 °C Therm. ID: D30
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	no	See below.
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
		n/a ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	no	Sample 1D was received underpreserved. 2ml of HNO3 Lot: LW09-0463-09-18
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Samples 7 and 8 had container labels that matched the COC but the lids had different ID's. The samples were logged in by the container labels per JAN. Sample 10 "Dup 1" was not included on the COC the samples were logged in per the container ID date and time.

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1183062001-A	Na2S2O3 for Chlorine Redu	OK			
1183062001-B	H2SO4 to pH < 2	OK			
1183062001-C	No Preservative Required	OK			
1183062001-D	HNO3 to pH < 2	OK			
1183062002-A	Na2S2O3 for Chlorine Redu	OK			
1183062002-B	H2SO4 to pH < 2	OK			
1183062002-C	No Preservative Required	OK			
1183062002-D	HNO3 to pH < 2	OK			
1183062003-A	Na2S2O3 for Chlorine Redu	OK			
1183062003-B	H2SO4 to pH < 2	OK			
1183062003-C	No Preservative Required	OK			
1183062003-D	HNO3 to pH < 2	OK			
1183062004-A	Na2S2O3 for Chlorine Redu	OK			
1183062004-B	H2SO4 to pH < 2	OK			
1183062004-C	No Preservative Required	OK			
1183062004-D	HNO3 to pH < 2	OK			
1183062005-A	Na2S2O3 for Chlorine Redu	OK			
1183062005-B	H2SO4 to pH < 2	OK			
1183062005-C	No Preservative Required	OK			
1183062005-D	HNO3 to pH < 2	OK			
1183062006-A	Na2S2O3 for Chlorine Redu	OK			
1183062006-B	Na2S2O3 for Chlorine Redu	OK			
1183062006-C	H2SO4 to pH < 2	OK			
1183062006-D	No Preservative Required	OK			
1183062006-E	No Preservative Required	OK			
1183062006-F	No Preservative Required	OK			
1183062007-A	Na2S2O3 for Chlorine Redu	OK			
1183062007-B	Na2S2O3 for Chlorine Redu	OK			
1183062007-C	H2SO4 to pH < 2	OK			
1183062007-D	No Preservative Required	OK			
1183062007-E	No Preservative Required	OK			
1183062007-F	No Preservative Required	OK			
1183062008-A	Na2S2O3 for Chlorine Redu	OK			
1183062008-B	Na2S2O3 for Chlorine Redu	OK			
1183062008-C	H2SO4 to pH < 2	OK			
1183062008-D	No Preservative Required	OK			
1183062008-E	No Preservative Required	OK			
1183062008-F	No Preservative Required	OK			
1183062009-A	Na2S2O3 for Chlorine Redu	OK			
1183062009-B	Na2S2O3 for Chlorine Redu	OK			
1183062009-C	H2SO4 to pH < 2	OK			
1183062009-D	No Preservative Required	OK			
1183062009-E	No Preservative Required	OK			
1183062009-F	No Preservative Required	OK			
1183062010-A	Na2S2O3 for Chlorine Redu	OK			
1183062010-B	Na2S2O3 for Chlorine Redu	OK			
1183062010-C	H2SO4 to pH < 2	OK			
1183062010-D	No Preservative Required	OK			
1183062010-E	No Preservative Required	OK			
1183062010-F	No Preservative Required	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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.

Laboratory Report of Analysis

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

Report Number: **1183097**

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 Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183097**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
U	Indicates the analyte was analyzed for but not detected.

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
B11	1183097001	06/21/2018	06/21/2018	Water (Surface, Eff., Ground)
SW13	1183097002	06/21/2018	06/21/2018	Water (Surface, Eff., Ground)
SW12	1183097003	06/21/2018	06/21/2018	Water (Surface, Eff., Ground)
SW11	1183097004	06/21/2018	06/21/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SW6020A	Metals by ICP-MS
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **B11**
Lab Sample ID: 1183097001

Parameter	Result	Units
Metals by ICP/MS		
Arsenic	6.59	ug/L
Barium	73.8	ug/L
Chromium	9.91	ug/L
Copper	23.7	ug/L
Lead	3.15	ug/L
Zinc	37.3	ug/L
Waters Department		
Ammonia-N	0.538	mg/L
Nitrate-N	0.477	mg/L
Nitrite-N	0.0452J	mg/L
Total Kjeldahl Nitrogen	0.961J	mg/L

Client Sample ID: **SW13**
Lab Sample ID: 1183097002

Parameter	Result	Units
Microbiology Laboratory		
E. Coli	3	MPN/100mL
Total Coliform	62	MPN/100mL
Waters Department		
Total Suspended Solids	0.600J	mg/L

Client Sample ID: **SW12**
Lab Sample ID: 1183097003

Parameter	Result	Units
Microbiology Laboratory		
E. Coli	1	MPN/100mL
Total Coliform	1080	MPN/100mL
Waters Department		
Total Phosphorus	0.0192J	mg/L
Total Suspended Solids	1.09	mg/L

Client Sample ID: **SW11**
Lab Sample ID: 1183097004

Parameter	Result	Units
Microbiology Laboratory		
Total Coliform	140	MPN/100mL
Waters Department		
Total Phosphorus	0.176	mg/L
Total Suspended Solids	1.18	mg/L

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

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097001
Lab Project ID: 1183097

Collection Date: 06/21/18 12:03
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	6.59		5.00	1.50	ug/L	5		06/26/18 17:35
Barium	73.8		3.00	0.940	ug/L	5		06/26/18 17:35
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:35
Chromium	9.91		4.00	1.30	ug/L	5		06/26/18 17:35
Copper	23.7		6.00	1.80	ug/L	5		06/26/18 17:35
Lead	3.15		1.00	0.310	ug/L	5		06/26/18 17:35
Mercury	0.100 U		0.200	0.0620	ug/L	5		06/26/18 17:35
Selenium	10.0 U		20.0	6.20	ug/L	5		06/26/18 17:35
Silver	1.00 U		2.00	0.620	ug/L	5		06/26/18 17:35
Zinc	37.3		25.0	7.80	ug/L	5		06/26/18 17:35

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/26/18 17:35
Container ID: 1183097001-D

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 06/26/18 08:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097001
Lab Project ID: 1183097

Collection Date: 06/21/18 12:03
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		06/21/18 17:59

Batch Information

Analytical Batch: BTF16645
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/21/18 17:59
Container ID: 1183097001-A

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

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097001
Lab Project ID: 1183097

Collection Date: 06/21/18 12:03
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.961	J	1.00	0.310	mg/L	1		06/26/18 10:29

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:29
Container ID: 1183097001-C

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.538		0.100	0.0310	mg/L	1		06/22/18 11:22

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:22
Container ID: 1183097001-C

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.477		0.100	0.0250	mg/L	2		06/22/18 13:00
Nitrite-N	0.0452	J	0.100	0.0250	mg/L	2		06/22/18 13:00

Batch Information

Analytical Batch: WFI2706
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/22/18 13:00
Container ID: 1183097001-B

Print Date: 06/27/2018 3:37:08PM

J flagging is activated

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097002
Lab Project ID: 1183097

Collection Date: 06/21/18 14:11
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/22/18 16:37

Batch Information

Analytical Batch: BOD6071
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/22/18 16:37
Container ID: 1183097002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		06/21/18 17:59

Batch Information

Analytical Batch: BTF16645
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/21/18 17:59
Container ID: 1183097002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	3		1	1	MPN/100m	1		06/21/18 18:17
Total Coliform	62		1	1	MPN/100m	1		06/21/18 18:17

Batch Information

Analytical Batch: BTF16644
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/21/18 18:17
Container ID: 1183097002-B

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

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097002
Lab Project ID: 1183097

Collection Date: 06/21/18 14:11
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.600	J	1.00	0.310	mg/L	1		06/25/18 12:31

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/25/18 12:31
Container ID: 1183097002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/26/18 10:30

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:30
Container ID: 1183097002-D

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500	U	0.100	0.0310	mg/L	1		06/22/18 11:23

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:23
Container ID: 1183097002-D

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/22/18 13:02
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/22/18 13:02

Print Date: 06/27/2018 3:37:08PM

J flagging is activated

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097002
Lab Project ID: 1183097

Collection Date: 06/21/18 14:11
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2706
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/22/18 13:02
Container ID: 1183097002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0100	U	0.0200	0.00500	mg/L	1		06/22/18 16:41

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/22/18 16:41
Container ID: 1183097002-D

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/22/18 14:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097003
Lab Project ID: 1183097

Collection Date: 06/21/18 14:35
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/22/18 16:37

Batch Information

Analytical Batch: BOD6071
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/22/18 16:37
Container ID: 1183097003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		06/21/18 17:59

Batch Information

Analytical Batch: BTF16645
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/21/18 17:59
Container ID: 1183097003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/21/18 18:17
Total Coliform	1080		10	10	MPN/100m	10		06/21/18 18:17

Batch Information

Analytical Batch: BTF16644
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/21/18 18:17
Container ID: 1183097003-B

Print Date: 06/27/2018 3:37:08PM

J flagging is activated

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097003
Lab Project ID: 1183097

Collection Date: 06/21/18 14:35
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.09		0.990	0.307	mg/L	1		06/25/18 12:31

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/25/18 12:31
Container ID: 1183097003-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/26/18 10:32

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:32
Container ID: 1183097003-D

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/22/18 11:25

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:25
Container ID: 1183097003-D

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/22/18 13:04
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/22/18 13:04

Print Date: 06/27/2018 3:37:08PM

J flagging is activated

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097003
Lab Project ID: 1183097

Collection Date: 06/21/18 14:35
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2706
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/22/18 13:04
Container ID: 1183097003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0192	J	0.0200	0.00500	mg/L	1		06/22/18 16:41

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/22/18 16:41
Container ID: 1183097003-D

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/22/18 14:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097004
Lab Project ID: 1183097

Collection Date: 06/21/18 15:00
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/22/18 16:37

Batch Information

Analytical Batch: BOD6071
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/22/18 16:37
Container ID: 1183097004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		06/21/18 17:59

Batch Information

Analytical Batch: BTF16645
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/21/18 17:59
Container ID: 1183097004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/21/18 18:17
Total Coliform	140		1	1	MPN/100m	1		06/21/18 18:17

Batch Information

Analytical Batch: BTF16644
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/21/18 18:17
Container ID: 1183097004-B

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097004
Lab Project ID: 1183097

Collection Date: 06/21/18 15:00
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.18		0.980	0.304	mg/L	1		06/25/18 12:31

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/25/18 12:31
Container ID: 1183097004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/26/18 10:33

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/26/18 10:33
Container ID: 1183097004-D

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 06/25/18 15:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		06/22/18 11:27

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/22/18 11:27
Container ID: 1183097004-D

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 06/22/18 09:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/22/18 13:06
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/22/18 13:06

Print Date: 06/27/2018 3:37:08PM

J flagging is activated

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183097004
Lab Project ID: 1183097

Collection Date: 06/21/18 15:00
Received Date: 06/21/18 16:49
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2706
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/22/18 13:06
Container ID: 1183097004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.176		0.0200	0.00500	mg/L	1		06/22/18 16:46

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/22/18 16:46
Container ID: 1183097004-D

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/22/18 14:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Method Blank

Blank ID: MB for HBN 1781434 [BOD/6071]
Blank Lab ID: 1454659

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097002, 1183097003, 1183097004

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6071
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/22/2018 4:37:05PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [BOD6071]
Blank Spike Lab ID: 1454660
Date Analyzed: 06/22/2018 16:37

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097002, 1183097003, 1183097004

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	205	104	(84.6-115.4

Batch Information

Analytical Batch: **BOD6071**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 06/27/2018 3:37:14PM

Method Blank

Blank ID: MB for HBN 1781353 [BTF/16644]
Blank Lab ID: 1454245

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097002, 1183097003, 1183097004

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16644
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 6/21/2018 1:15:00PM

Print Date: 06/27/2018 3:37:16PM

Method Blank

Blank ID: MB for HBN 1781354 [BTF/16645]
Blank Lab ID: 1454249

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16645
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/21/2018 5:59:00PM

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

Method Blank

Blank ID: MB for HBN 1781545 [MXX/31688]
Blank Lab ID: 1455193

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097001

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Copper	3.00U	6.00	1.80	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.0896J	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L
Zinc	12.5U	25.0	7.80	ug/L

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 3:59:14PM

Prep Batch: MXX31688
Prep Method: SW3010A
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [MXX31688]
Blank Spike Lab ID: 1455194
Date Analyzed: 06/26/2018 16:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1040	104	(84-116)
Barium	1000	1010	101	(86-114)
Cadmium	100	99.4	99	(87-115)
Chromium	400	442	110	(85-116)
Copper	1000	1060	106	(85-118)
Lead	1000	1070	107	(88-115)
Mercury	10	10.1	101	(70-124)
Selenium	1000	1020	102	(80-120)
Silver	100	102	102	(85-116)
Zinc	1000	1030	103	(83-119)

Batch Information

Analytical Batch: **MMS10217**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSH**

Prep Batch: **MXX31688**
Prep Method: **SW3010A**
Prep Date/Time: **06/26/2018 08:00**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455197 MS
MSD Sample ID: 1455198 MSD

QC for Samples: 1183097001

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:13
Analysis Date: 06/26/2018 16:17
Matrix: Water (Surface, Eff., Ground)

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	1000	1020	101	1000	1000	99	84-116	2.08	(< 20)
Barium	162	1000	1240	107	1000	1200	103	86-114	3.32	(< 20)
Cadmium	1.00U	100	99	99	100	97.2	97	87-115	1.87	(< 20)
Chromium	64.5	400	500	109	400	486	105	85-116	2.79	(< 20)
Copper	75.2	1000	1110	103	1000	1070	99	85-118	3.55	(< 20)
Lead	7.72	1000	1060	106	1000	1070	106	88-115	0.51	(< 20)
Mercury	0.313	10.0	10.2	99	10.0	10.4	101	70-124	1.78	(< 20)
Selenium	10.0U	1000	1010	101	1000	977	98	80-120	3.39	(< 20)
Silver	1.00U	100	102	102	100	101	101	85-116	0.35	(< 20)
Zinc	82.8	1000	1100	102	1000	1060	98	83-119	3.31	(< 20)

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:13:17PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:37:26PM

Bench Spike Summary

Original Sample ID: 1455195
MS Sample ID: 1455196 BND
MSD Sample ID:

Analysis Date: 06/26/2018 16:08
Analysis Date: 06/26/2018 16:22
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	17.0	125	144	102				80-120		
Barium	162	2500	2700	101				80-120		
Cadmium	1.00U	1250	1220	98				80-120		
Chromium	64.5	1250	1390	106				80-120		
Copper	75.2	1250	1330	100				80-120		
Lead	7.72	1250	1310	104				80-120		
Mercury	0.313	25.0	24.7	98				80-120		
Selenium	10.0U	125	121	97				80-120		
Silver	1.00U	25.0	24.9	100				80-120		
Zinc	82.8	1250	1310	98				80-120		

Batch Information

Analytical Batch: MMS10217
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/26/2018 4:22:40PM

Prep Batch: MXX31688
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2018 8:00:28AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:37:26PM

Method Blank

Blank ID: MB for HBN 1781486 [STS/5922]
Blank Lab ID: 1454931

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097002, 1183097003, 1183097004

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/25/2018 12:31:02PM

Duplicate Sample Summary

Original Sample ID: 1183081001
Duplicate Sample ID: 1454934
QC for Samples:

Analysis Date: 06/25/2018 12:31
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	4190	4350	mg/L	3.70	(< 5)

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/27/2018 3:37:28PM

Duplicate Sample Summary

Original Sample ID: 1183089001
Duplicate Sample ID: 1454935
QC for Samples:
1183097002, 1183097003, 1183097004

Analysis Date: 06/25/2018 12:31
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	14.5	14.3	mg/L	1.70	(< 5)

Batch Information

Analytical Batch: STS5922
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 06/27/2018 3:37:28PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [STS5922]
Blank Spike Lab ID: 1454932
Date Analyzed: 06/25/2018 12:31

Spike Duplicate ID: LCSD for HBN 1183097 [STS5922]
Spike Duplicate Lab ID: 1454933
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097002, 1183097003, 1183097004

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.6	102	25	25.9	104	(75-125)	1.20	(< 5)

Batch Information

Analytical Batch: **STS5922**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [WFI2706]
Blank Spike Lab ID: 1455036
Date Analyzed: 06/22/2018 12:53

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.89	116	(70-130)
Nitrite-N	2.5	2.42	97	(90-110)
Total Nitrate/Nitrite-N	5	5.32	106	(90-110)

Batch Information

Analytical Batch: **WFI2706**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

Print Date: 06/27/2018 3:37:34PM

Matrix Spike Summary

Original Sample ID: 1183097004
MS Sample ID: 1455034 MS
MSD Sample ID: 1455035 MSD

Analysis Date: 06/22/2018 13:06
Analysis Date: 06/22/2018 13:07
Analysis Date: 06/22/2018 13:09
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.57	103	2.50	2.75	110	70-130	7.10	(< 25)
Nitrite-N	0.0500U	2.50	2.41	96	2.50	2.40	96	90-110	0.27	(< 25)

Batch Information

Analytical Batch: WFI2706
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/22/2018 1:07:49PM

Print Date: 06/27/2018 3:37:36PM

Method Blank

Blank ID: MB for HBN 1781379 [WXX/12389]
Blank Lab ID: 1454389

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0500U	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 10:52:20AM

Prep Batch: WXX12389
Prep Method: METHOD
Prep Date/Time: 6/22/2018 9:45:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [WXX12389]
Blank Spike Lab ID: 1454390
Date Analyzed: 06/22/2018 10:54

Spike Duplicate ID: LCSD for HBN 1183097 [WXX12389]
Spike Duplicate Lab ID: 1454391
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.994	99	1	0.994	99	(75-125)	0.04	(< 25)

Batch Information

Analytical Batch: **WDA4314**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12389**
Prep Method: **METHOD**
Prep Date/Time: **06/22/2018 09:45**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1183062002
MS Sample ID: 1454392 MS
MSD Sample ID: 1454393 MSD

Analysis Date: 06/22/2018 10:59
Analysis Date: 06/22/2018 11:00
Analysis Date: 06/22/2018 11:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0839J	1.00	1.04	95	1.00	1.01	92	75-125	2.90	(< 25)

Batch Information

Analytical Batch: WDA4314
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 11:00:43AM

Prep Batch: WXX12389
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/22/2018 9:45:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 06/27/2018 3:37:41PM

Method Blank

Blank ID: MB for HBN 1781422 [WXX/12391]
Blank Lab ID: 1454606

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097002, 1183097003, 1183097004

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

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 4:35:10PM

Prep Batch: WXX12391
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/22/2018 2:31:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [WXX12391]
Blank Spike Lab ID: 1454607
Date Analyzed: 06/22/2018 16:36

Spike Duplicate ID: LCSD for HBN 1183097 [WXX12391]
Spike Duplicate Lab ID: 1454608
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097002, 1183097003, 1183097004

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.192	96	0.2	0.189	94	(85-115)	1.60	(< 25)

Batch Information

Analytical Batch: **WDA4315**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12391**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/22/2018 14:31**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183097004
MS Sample ID: 1454609 MS
MSD Sample ID: 1454610 MSD

Analysis Date: 06/22/2018 16:46
Analysis Date: 06/22/2018 16:47
Analysis Date: 06/22/2018 16:48
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097002, 1183097003, 1183097004

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

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.176	0.200	.368	96	0.200	0.377	101	75-125	2.50	(< 25)

Batch Information

Analytical Batch: WDA4315
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/22/2018 4:47:41PM

Prep Batch: WXX12391
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/22/2018 2:31:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:37:46PM

Method Blank

Blank ID: MB for HBN 1781564 [WXX/12395]
Blank Lab ID: 1455291

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2018 10:07:39AM

Prep Batch: WXX12395
Prep Method: METHOD
Prep Date/Time: 6/25/2018 3:20:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183097 [WXX12395]
Blank Spike Lab ID: 1455292
Date Analyzed: 06/26/2018 10:08

Spike Duplicate ID: LCSD for HBN 1183097 [WXX12395]
Spike Duplicate Lab ID: 1455293
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.19	105	4	4.17	104	(75-125)	0.34	(< 25)

Batch Information

Analytical Batch: **WDA4317**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12395**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2018 15:20**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183062002
MS Sample ID: 1455294 MS
MSD Sample ID: 1455295 MSD

Analysis Date: 06/26/2018 10:12
Analysis Date: 06/26/2018 10:14
Analysis Date: 06/26/2018 10:15
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183097001, 1183097002, 1183097003, 1183097004

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	4.27	107	4.00	4.22	106	75-125	1.10	(< 25)

Batch Information

Analytical Batch: WDA4317
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2018 10:14:12AM

Prep Batch: WXX12395
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/25/2018 3:20:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/27/2018 3:37:50PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1183097

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Alward PHONE #: 343-5202

PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL: jake.alward@stantec.com

INVOICE TO: Stantec QUOTE #: P.O. #: 204700415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	6020A - RCRA + Cu/Zn	TKN/Ammonia			REMARKS/LOC ID
(1) A-D	B11	6/21/18	12:03		4	G			1			1	1	1			
(2) A-F	SW13		14:11		6		1	1	1	1	1	1					
(3) A-F	SW12		14:35		6		1	1	1	1	1	1					
(4) A-F	SW11		15:00		6		1	1	1	1	1	1					

Section 5

	Date	Time	
Relinquished By: (1)	6/21/18	16:49	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	06/21/18	16:49	Received For Laboratory By: SM MC SD

Section 4

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.1 D42 or Ambient [ ]

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

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

e-Sample Receipt Form

SGS Workorder #: **1183097**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		yes Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	
COC accompanied samples?	yes	
yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 3.1 °C Therm. ID: D42
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	**Fecal Coliforms, BOD, Nitrate/Nitrite unpreserved short holds**
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
	yes	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1183097001-A	Na2S2O3 for Chlorine Redu	OK			
1183097001-B	No Preservative Required	OK			
1183097001-C	H2SO4 to pH < 2	OK			
1183097001-D	HNO3 to pH < 2	OK			
1183097002-A	Na2S2O3 for Chlorine Redu	OK			
1183097002-B	Na2S2O3 for Chlorine Redu	OK			
1183097002-C	No Preservative Required	OK			
1183097002-D	H2SO4 to pH < 2	OK			
1183097002-E	No Preservative Required	OK			
1183097002-F	No Preservative Required	OK			
1183097003-A	Na2S2O3 for Chlorine Redu	OK			
1183097003-B	Na2S2O3 for Chlorine Redu	OK			
1183097003-C	No Preservative Required	OK			
1183097003-D	H2SO4 to pH < 2	OK			
1183097003-E	No Preservative Required	OK			
1183097003-F	No Preservative Required	OK			
1183097004-A	Na2S2O3 for Chlorine Redu	OK			
1183097004-B	Na2S2O3 for Chlorine Redu	OK			
1183097004-C	No Preservative Required	OK			
1183097004-D	H2SO4 to pH < 2	OK			
1183097004-E	No Preservative Required	OK			
1183097004-F	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.
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.

Laboratory Report of Analysis

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

Report Number: **1183188**

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 Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183188**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
U	Indicates the analyte was analyzed for but not detected.

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW17	1183188001	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
SW10	1183188002	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
SW9	1183188003	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
MW8	1183188004	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
SW8	1183188005	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
MW16	1183188006	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
MW12	1183188007	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
SW16	1183188008	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
SW15	1183188009	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)
MW13	1183188010	06/26/2018	06/26/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SW6020A	Metals by ICP-MS
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **MW17**
Lab Sample ID: 1183188001

	Parameter	Result	Units
Metals by ICP/MS	Barium	38.2	ug/L
	Chromium	1.96J	ug/L
Waters Department	Ammonia-N	0.857	mg/L

Client Sample ID: **SW10**
Lab Sample ID: 1183188002

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.21	mg/L
	E. Coli	1	MPN/100mL
	Total Coliform	613	MPN/100mL
Waters Department	Ammonia-N	0.0370J	mg/L
	Total Phosphorus	0.0339	mg/L
	Total Suspended Solids	0.693J	mg/L

Client Sample ID: **SW9**
Lab Sample ID: 1183188003

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	1	MPN/100mL
	Total Coliform	1300	MPN/100mL
Waters Department	Ammonia-N	0.0480J	mg/L

Client Sample ID: **MW8**
Lab Sample ID: 1183188004

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	9.80	ug/L
	Barium	11.8	ug/L
	Chromium	1.80J	ug/L
Waters Department	Ammonia-N	0.100	mg/L

Client Sample ID: **SW8**
Lab Sample ID: 1183188005

	Parameter	Result	Units
Microbiology Laboratory	Total Coliform	579	MPN/100mL
Waters Department	Ammonia-N	0.0479J	mg/L
	Total Phosphorus	0.0416	mg/L
	Total Suspended Solids	0.521J	mg/L

Client Sample ID: **MW16**
Lab Sample ID: 1183188006

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	8.12	ug/L
	Barium	23.7	ug/L
	Chromium	1.42J	ug/L
	Copper	7.55	ug/L
	Lead	0.921J	ug/L
Microbiology Laboratory	Fecal Coliform	6.0	col/100mL
Waters Department	Ammonia-N	0.0684J	mg/L

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

Detectable Results Summary

Client Sample ID: **MW12**
Lab Sample ID: 1183188007

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	8.83	ug/L
	Barium	12.1	ug/L
	Copper	2.18J	ug/L
	Lead	0.350J	ug/L
	Mercury	0.0685J	ug/L
Waters Department	Ammonia-N	0.0862J	mg/L
	Total Kjeldahl Nitrogen	0.402J	mg/L

Client Sample ID: **SW16**
Lab Sample ID: 1183188008

	Parameter	Result	Units
Metals by ICP/MS	Barium	11.6	ug/L
	Lead	0.388J	ug/L
	Mercury	0.0652J	ug/L
Microbiology Laboratory	Biochemical Oxygen Demand	3.61	mg/L
	E. Coli	4	MPN/100mL
	Fecal Coliform	7.0	col/100mL
	Total Coliform	8660	MPN/100mL
Waters Department	Ammonia-N	0.0525J	mg/L
	Total Phosphorus	0.0564	mg/L
	Total Suspended Solids	21.6	mg/L

Client Sample ID: **SW15**
Lab Sample ID: 1183188009

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	1.75J	ug/L
	Barium	13.4	ug/L
	Copper	1.87J	ug/L
Microbiology Laboratory	E. Coli	4	MPN/100mL
	Fecal Coliform	8.0	col/100mL
	Total Coliform	1553	MPN/100mL
Waters Department	Ammonia-N	0.0404J	mg/L
	Total Phosphorus	0.0311	mg/L
	Total Suspended Solids	11.4	mg/L

Client Sample ID: **MW13**
Lab Sample ID: 1183188010

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	3.17J	ug/L
	Barium	18.3	ug/L
	Chromium	2.00J	ug/L
	Copper	2.90J	ug/L
	Lead	0.521J	ug/L
Waters Department	Ammonia-N	0.192	mg/L
	Total Kjeldahl Nitrogen	0.430J	mg/L

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

Results of **MW17**

Client Sample ID: **MW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188001
Lab Project ID: 1183188

Collection Date: 06/26/18 10:16
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	ug/L	5		07/03/18 22:47
Barium	38.2		3.00	0.940	ug/L	5		07/03/18 22:47
Cadmium	1.00	U	2.00	0.620	ug/L	5		07/03/18 22:47
Chromium	1.96	J	4.00	1.30	ug/L	5		07/03/18 22:47
Copper	3.00	U	6.00	1.80	ug/L	5		07/03/18 22:47
Lead	0.500	U	1.00	0.310	ug/L	5		07/03/18 22:47
Mercury	0.100	U	0.200	0.0620	ug/L	5		07/03/18 22:47
Selenium	10.0	U	20.0	6.20	ug/L	5		07/03/18 22:47
Silver	1.00	U	2.00	0.620	ug/L	5		07/03/18 22:47
Zinc	12.5	U	25.0	7.80	ug/L	5		07/03/18 22:47

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 22:47
Container ID: 1183188001-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW17**

Client Sample ID: **MW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188001
Lab Project ID: 1183188

Collection Date: 06/26/18 10:16
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/26/18 18:16

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:16
Container ID: 1183188001-A

Results of **MW17**

Client Sample ID: **MW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188001
Lab Project ID: 1183188

Collection Date: 06/26/18 10:16
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/28/18 15:33

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:33
Container ID: 1183188001-D

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.857		0.100	0.0310	mg/L	1		06/27/18 15:42

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:42
Container ID: 1183188001-D

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:13
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:13

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:13
Container ID: 1183188001-B

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188002
Lab Project ID: 1183188

Collection Date: 06/26/18 10:38
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.21		2.00	2.00	mg/L	1		06/27/18 16:25

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/27/18 16:25
Container ID: 1183188002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/26/18 18:37

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:37
Container ID: 1183188002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/27/18 10:38
Total Coliform	613		1	1	MPN/100m	1		06/27/18 10:38

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/27/18 10:38
Container ID: 1183188002-D

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188002
Lab Project ID: 1183188

Collection Date: 06/26/18 10:38
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.693	J	0.990	0.307	mg/L	1		06/27/18 15:58

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/27/18 15:58
Container ID: 1183188002-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/28/18 15:34

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:34
Container ID: 1183188002-F

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0370	J	0.100	0.0310	mg/L	1		06/27/18 15:43

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:43
Container ID: 1183188002-F

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:15
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:15

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188002
Lab Project ID: 1183188

Collection Date: 06/26/18 10:38
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:15
Container ID: 1183188002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0339		0.0200	0.00500	mg/L	1		06/29/18 15:16

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:16
Container ID: 1183188002-F

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188003
Lab Project ID: 1183188

Collection Date: 06/26/18 10:56
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/27/18 16:25

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/27/18 16:25
Container ID: 1183188003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/26/18 18:37

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:37
Container ID: 1183188003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/27/18 10:38
Total Coliform	1300		1	1	MPN/100m	1		06/27/18 10:38

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/27/18 10:38
Container ID: 1183188003-D

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188003
Lab Project ID: 1183188

Collection Date: 06/26/18 10:56
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.495	U	0.990	0.307	mg/L	1		06/27/18 15:58

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/27/18 15:58
Container ID: 1183188003-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/28/18 15:36

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:36
Container ID: 1183188003-F

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0480	J	0.100	0.0310	mg/L	1		06/27/18 15:45

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:45
Container ID: 1183188003-F

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:17
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:17

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188003
Lab Project ID: 1183188

Collection Date: 06/26/18 10:56
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:17
Container ID: 1183188003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0100	U	0.0200	0.00500	mg/L	1		06/29/18 15:17

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:17
Container ID: 1183188003-F

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW8**

Client Sample ID: **MW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188004
Lab Project ID: 1183188

Collection Date: 06/26/18 11:06
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	9.80		5.00	1.50	ug/L	5		07/03/18 22:28
Barium	11.8		3.00	0.940	ug/L	5		07/03/18 22:28
Cadmium	1.00 U		2.00	0.620	ug/L	5		07/03/18 22:28
Chromium	1.80 J		4.00	1.30	ug/L	5		07/03/18 22:28
Copper	3.00 U		6.00	1.80	ug/L	5		07/03/18 22:28
Lead	0.500 U		1.00	0.310	ug/L	5		07/03/18 22:28
Mercury	0.100 U		0.200	0.0620	ug/L	5		07/03/18 22:28
Selenium	10.0 U		20.0	6.20	ug/L	5		07/03/18 22:28
Silver	1.00 U		2.00	0.620	ug/L	5		07/03/18 22:28
Zinc	12.5 U		25.0	7.80	ug/L	5		07/03/18 22:28

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 22:28
Container ID: 1183188004-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW8**

Client Sample ID: **MW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188004
Lab Project ID: 1183188

Collection Date: 06/26/18 11:06
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/26/18 18:37

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:37
Container ID: 1183188004-A

Results of **MW8**

Client Sample ID: **MW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188004
Lab Project ID: 1183188

Collection Date: 06/26/18 11:06
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/28/18 15:37

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:37
Container ID: 1183188004-D

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.100		0.100	0.0310	mg/L	1		06/27/18 15:47

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:47
Container ID: 1183188004-D

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:19
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:19

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:19
Container ID: 1183188004-B

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188005
Lab Project ID: 1183188

Collection Date: 06/26/18 11:42
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/27/18 16:25

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/27/18 16:25
Container ID: 1183188005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/26/18 18:37

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:37
Container ID: 1183188005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/27/18 10:38
Total Coliform	579		1	1	MPN/100m	1		06/27/18 10:38

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/27/18 10:38
Container ID: 1183188005-D

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188005
Lab Project ID: 1183188

Collection Date: 06/26/18 11:42
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.521	J	1.04	0.323	mg/L	1		06/27/18 15:58

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/27/18 15:58
Container ID: 1183188005-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		06/28/18 15:44

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:44
Container ID: 1183188005-F

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0479	J	0.100	0.0310	mg/L	1		06/27/18 15:55

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:55
Container ID: 1183188005-F

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:20
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:20

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188005
Lab Project ID: 1183188

Collection Date: 06/26/18 11:42
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:20
Container ID: 1183188005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0416		0.0200	0.00500	mg/L	1		06/29/18 15:17

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:17
Container ID: 1183188005-F

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW16**

Client Sample ID: **MW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188006
Lab Project ID: 1183188

Collection Date: 06/26/18 13:00
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	8.12		5.00	1.50	ug/L	5		07/03/18 22:42
Barium	23.7		3.00	0.940	ug/L	5		07/03/18 22:42
Cadmium	1.00 U		2.00	0.620	ug/L	5		07/03/18 22:42
Chromium	1.42 J		4.00	1.30	ug/L	5		07/05/18 14:45
Copper	7.55		6.00	1.80	ug/L	5		07/03/18 22:42
Lead	0.921 J		1.00	0.310	ug/L	5		07/03/18 22:42
Mercury	0.100 U		0.200	0.0620	ug/L	5		07/03/18 22:42
Selenium	10.0 U		20.0	6.20	ug/L	5		07/03/18 22:42
Silver	1.00 U		2.00	0.620	ug/L	5		07/03/18 22:42
Zinc	12.5 U		25.0	7.80	ug/L	5		07/03/18 22:42

Batch Information

Analytical Batch: MMS10230
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/05/18 14:45
Container ID: 1183188006-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 22:42
Container ID: 1183188006-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **MW16**

Client Sample ID: **MW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188006
Lab Project ID: 1183188

Collection Date: 06/26/18 13:00
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	6.0		1.00	1.00	col/100mL	1		06/26/18 18:37

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:37
Container ID: 1183188006-A

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

Results of **MW16**

Client Sample ID: **MW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188006
Lab Project ID: 1183188

Collection Date: 06/26/18 13:00
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/28/18 15:45

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:45
Container ID: 1183188006-D

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0684 J		0.100	0.0310	mg/L	1		06/27/18 15:57

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:57
Container ID: 1183188006-D

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:31
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:31

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:31
Container ID: 1183188006-B

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **MW12**

Client Sample ID: **MW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188007
Lab Project ID: 1183188

Collection Date: 06/26/18 13:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	8.83		5.00	1.50	ug/L	5		07/03/18 23:10
Barium	12.1		3.00	0.940	ug/L	5		07/03/18 23:10
Cadmium	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:10
Chromium	2.00	U	4.00	1.30	ug/L	5		07/03/18 23:10
Copper	2.18	J	6.00	1.80	ug/L	5		07/03/18 23:10
Lead	0.350	J	1.00	0.310	ug/L	5		07/03/18 23:10
Mercury	0.0685	J	0.200	0.0620	ug/L	5		07/03/18 23:10
Selenium	10.0	U	20.0	6.20	ug/L	5		07/03/18 23:10
Silver	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:10
Zinc	12.5	U	25.0	7.80	ug/L	5		07/03/18 23:10

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 23:10
Container ID: 1183188007-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW12**

Client Sample ID: **MW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188007
Lab Project ID: 1183188

Collection Date: 06/26/18 13:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/26/18 18:53

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:53
Container ID: 1183188007-A

Results of **MW12**

Client Sample ID: **MW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188007
Lab Project ID: 1183188

Collection Date: 06/26/18 13:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.402	J	1.00	0.310	mg/L	1		06/28/18 15:46

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:46
Container ID: 1183188007-D

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0862	J	0.100	0.0310	mg/L	1		06/27/18 15:59

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 15:59
Container ID: 1183188007-D

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:33
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:33

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:33
Container ID: 1183188007-B

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188008
Lab Project ID: 1183188

Collection Date: 06/26/18 14:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	ug/L	5		07/03/18 23:15
Barium	11.6		3.00	0.940	ug/L	5		07/03/18 23:15
Cadmium	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:15
Chromium	2.00	U	4.00	1.30	ug/L	5		07/03/18 23:15
Copper	3.00	U	6.00	1.80	ug/L	5		07/03/18 23:15
Lead	0.388	J	1.00	0.310	ug/L	5		07/03/18 23:15
Mercury	0.0652	J	0.200	0.0620	ug/L	5		07/03/18 23:15
Selenium	10.0	U	20.0	6.20	ug/L	5		07/03/18 23:15
Silver	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:15
Zinc	12.5	U	25.0	7.80	ug/L	5		07/03/18 23:15

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 23:15
Container ID: 1183188008-F

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188008
Lab Project ID: 1183188

Collection Date: 06/26/18 14:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	3.61		2.00	2.00	mg/L	1		06/27/18 16:25

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/27/18 16:25
Container ID: 1183188008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	7.0		1.00	1.00	col/100mL	1		06/26/18 18:53

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:53
Container ID: 1183188008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		06/27/18 10:38
Total Coliform	8660		10	10	MPN/100m	10		06/27/18 10:38

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/27/18 10:38
Container ID: 1183188008-D

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188008
Lab Project ID: 1183188

Collection Date: 06/26/18 14:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	21.6		2.00	0.620	mg/L	1		06/27/18 15:58

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/27/18 15:58
Container ID: 1183188008-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/28/18 15:47

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:47
Container ID: 1183188008-G

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0525 J		0.100	0.0310	mg/L	1		06/27/18 16:00

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 16:00
Container ID: 1183188008-G

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:34
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:34

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188008
Lab Project ID: 1183188

Collection Date: 06/26/18 14:33
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:34
Container ID: 1183188008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0564		0.0200	0.00500	mg/L	1		06/29/18 15:18

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:18
Container ID: 1183188008-G

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188009
Lab Project ID: 1183188

Collection Date: 06/26/18 15:03
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	1.75	J	5.00	1.50	ug/L	5		07/03/18 23:20
Barium	13.4		3.00	0.940	ug/L	5		07/03/18 23:20
Cadmium	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:20
Chromium	2.00	U	4.00	1.30	ug/L	5		07/03/18 23:20
Copper	1.87	J	6.00	1.80	ug/L	5		07/03/18 23:20
Lead	0.500	U	1.00	0.310	ug/L	5		07/03/18 23:20
Mercury	0.100	U	0.200	0.0620	ug/L	5		07/03/18 23:20
Selenium	10.0	U	20.0	6.20	ug/L	5		07/03/18 23:20
Silver	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:20
Zinc	12.5	U	25.0	7.80	ug/L	5		07/03/18 23:20

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 23:20
Container ID: 1183188009-F

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188009
Lab Project ID: 1183188

Collection Date: 06/26/18 15:03
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/27/18 16:25

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/27/18 16:25
Container ID: 1183188009-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	8.0		1.00	1.00	col/100mL	1		06/26/18 18:53

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:53
Container ID: 1183188009-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		06/27/18 10:38
Total Coliform	1553		1	1	MPN/100m	1		06/27/18 10:38

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/27/18 10:38
Container ID: 1183188009-D

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188009
Lab Project ID: 1183188

Collection Date: 06/26/18 15:03
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	11.4		0.990	0.307	mg/L	1		06/27/18 15:58

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/27/18 15:58
Container ID: 1183188009-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/28/18 15:49

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:49
Container ID: 1183188009-G

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0404 J		0.100	0.0310	mg/L	1		06/27/18 16:02

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 16:02
Container ID: 1183188009-G

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:36
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/26/18 19:36

Print Date: 07/09/2018 11:15:34AM

J flagging is activated

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188009
Lab Project ID: 1183188

Collection Date: 06/26/18 15:03
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:36
Container ID: 1183188009-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0311		0.0200	0.00500	mg/L	1		06/29/18 15:19

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:19
Container ID: 1183188009-G

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188010
Lab Project ID: 1183188

Collection Date: 06/26/18 15:17
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	3.17	J	5.00	1.50	ug/L	5		07/03/18 23:24
Barium	18.3		3.00	0.940	ug/L	5		07/03/18 23:24
Cadmium	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:24
Chromium	2.00	J	4.00	1.30	ug/L	5		07/03/18 23:24
Copper	2.90	J	6.00	1.80	ug/L	5		07/03/18 23:24
Lead	0.521	J	1.00	0.310	ug/L	5		07/03/18 23:24
Mercury	0.100	U	0.200	0.0620	ug/L	5		07/03/18 23:24
Selenium	10.0	U	20.0	6.20	ug/L	5		07/03/18 23:24
Silver	1.00	U	2.00	0.620	ug/L	5		07/03/18 23:24
Zinc	12.5	U	25.0	7.80	ug/L	5		07/03/18 23:24

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 07/03/18 23:24
Container ID: 1183188010-C

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 07/03/18 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188010
Lab Project ID: 1183188

Collection Date: 06/26/18 15:17
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/26/18 18:53

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/26/18 18:53
Container ID: 1183188010-A

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183188010
Lab Project ID: 1183188

Collection Date: 06/26/18 15:17
Received Date: 06/26/18 17:24
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.430	J	1.00	0.310	mg/L	1		06/28/18 15:50

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/28/18 15:50
Container ID: 1183188010-D

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 06/27/18 17:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.192		0.100	0.0310	mg/L	1		06/27/18 16:03

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/27/18 16:03
Container ID: 1183188010-D

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 06/27/18 15:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:38
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		06/26/18 19:38

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/26/18 19:38
Container ID: 1183188010-B

Method Blank

Blank ID: MB for HBN 1781659 [BOD/6074]
Blank Lab ID: 1455717

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6074
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/27/2018 4:25:13PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [BOD6074]
Blank Spike Lab ID: 1455718
Date Analyzed: 06/27/2018 16:25

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	189	96	(84.6-115.4

Batch Information

Analytical Batch: **BOD6074**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 07/09/2018 11:15:40AM

Method Blank

Blank ID: MB for HBN 1781604 [BTF/16655]
Blank Lab ID: 1455486

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/26/2018 6:16:00PM

Print Date: 07/09/2018 11:15:41AM

Method Blank

Blank ID: MB for HBN 1781604 [BTF/16655]
Blank Lab ID: 1455487

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16655
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/26/2018 6:53:00PM

Print Date: 07/09/2018 11:15:41AM

Method Blank

Blank ID: MB for HBN 1781665 [BTF/16660]
Blank Lab ID: 1455746

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16660
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 6/27/2018 10:38:00AM

Print Date: 07/09/2018 11:15:43AM

Method Blank

Blank ID: MB for HBN 1781938 [MXX/31706]
Blank Lab ID: 1456948

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188001, 1183188004, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic				ug/L
Barium				ug/L
Cadmium				ug/L
Chromium				ug/L
Copper				ug/L
Lead				ug/L
Mercury				ug/L
Selenium				ug/L
Silver				ug/L
Zinc				ug/L

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: ACF
Analytical Date/Time: 7/3/2018 10:19:00PM

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 7/3/2018 12:30:05PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Analytical Batch: MMS10230
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 7/5/2018 2:40:39PM

Prep Batch: MXX31706
Prep Method: SW3010A
Prep Date/Time: 7/3/2018 12:30:05PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [MXX31706]
Blank Spike Lab ID: 1456949
Date Analyzed: 07/03/2018 22:23

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188004, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	996	100	(84-116)
Barium	1000	953	95	(86-114)
Cadmium	100	93.2	93	(87-115)
Chromium	400	391	98	(85-116)
Copper	1000	958	96	(85-118)
Lead	1000	1030	103	(88-115)
Mercury	10	9.52	95	(70-124)
Selenium	1000	1030	103	(80-120)
Silver	100	97.0	97	(85-116)
Zinc	1000	966	97	(83-119)

Batch Information

Analytical Batch: **MMS10228**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **ACF**

Prep Batch: **MXX31706**
Prep Method: **SW3010A**
Prep Date/Time: **07/03/2018 12:30**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1456950
MS Sample ID: 1456955 MS
MSD Sample ID: 1456956 MSD

Analysis Date: 07/03/2018 22:47
Analysis Date: 07/03/2018 22:51
Analysis Date: 07/03/2018 22:56
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188004, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	2.50U	1000	986	99	1000	987	99	84-116	0.12	(< 20)
Barium	38.2	1000	989	95	1000	993	96	86-114	0.45	(< 20)
Cadmium	1.00U	100	92.8	93	100	93.7	94	87-115	0.91	(< 20)
Chromium	1.96J	400	371	92	400	370	92	85-116	0.31	(< 20)
Copper	3.00U	1000	931	93	1000	944	94	85-118	1.48	(< 20)
Lead	0.500U	1000	1050	105	1000	1040	104	88-115	1.57	(< 20)
Mercury	0.100U	10.0	10.1	101	10.0	10.1	101	70-124	0.58	(< 20)
Selenium	10.0U	1000	976	98	1000	994	99	80-120	1.85	(< 20)
Silver	1.00U	100	103	103	100	104	104	85-116	0.19	(< 20)
Zinc	12.5U	1000	953	95	1000	978	98	83-119	2.67	(< 20)

Batch Information

Analytical Batch: MMS10228
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: ACF
Analytical Date/Time: 7/3/2018 10:51:57PM

Prep Batch: MXX31706
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 7/3/2018 12:30:05PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

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

Method Blank

Blank ID: MB for HBN 1781624 [STS/5923]
Blank Lab ID: 1455547

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/27/2018 3:58:06PM

Print Date: 07/09/2018 11:15:49AM

Duplicate Sample Summary

Original Sample ID: 1183129001
Duplicate Sample ID: 1455550
QC for Samples:

Analysis Date: 06/27/2018 15:58
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	73.3	70.0	mg/L	4.70	(< 5)

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/09/2018 11:15:50AM

Duplicate Sample Summary

Original Sample ID: 1183129004
Duplicate Sample ID: 1455551
Analysis Date: 06/27/2018 15:58
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	634	642	mg/L	1.30	(< 5)

Batch Information

Analytical Batch: STS5923
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/09/2018 11:15:50AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [STS5923]
Blank Spike Lab ID: 1455548
Date Analyzed: 06/27/2018 15:58

Spike Duplicate ID: LCSD for HBN 1183188 [STS5923]
Spike Duplicate Lab ID: 1455549
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188002, 1183188003, 1183188005, 1183188008, 1183188009

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.6	102	25	25.4	102	(75-125)	0.78	(< 5)

Batch Information

Analytical Batch: **STS5923**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Method Blank

Blank ID: MB for HBN 1781635 (WFI/2708) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1455614

QC for Samples:
1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/26/2018 7:06:47PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [WFI2708]
Blank Spike Lab ID: 1455604
Date Analyzed: 06/26/2018 19:05

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.59	104	(70-130)
Nitrite-N	2.5	2.54	102	(90-110)
Total Nitrate/Nitrite-N	5	5.13	103	(90-110)

Batch Information

Analytical Batch: **WFI2708**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

Print Date: 07/09/2018 11:15:53AM

Matrix Spike Summary

Original Sample ID: 1183188005
MS Sample ID: 1455602 MS
MSD Sample ID: 1455603 MSD

Analysis Date: 06/26/2018 19:20
Analysis Date: 06/26/2018 19:22
Analysis Date: 06/26/2018 19:24
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.64	106	2.50	2.59	104	70-130	1.80	(< 25)
Nitrite-N	0.0500U	2.50	2.46	99	2.50	2.45	98	90-110	0.69	(< 25)

Batch Information

Analytical Batch: WFI2708
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/26/2018 7:22:32PM

Print Date: 07/09/2018 11:15:55AM

Method Blank

Blank ID: MB for HBN 1781715 [WXX/12398]
Blank Lab ID: 1455955

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0355J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/27/2018 3:35:30PM

Prep Batch: WXX12398
Prep Method: METHOD
Prep Date/Time: 6/27/2018 3:00:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [WXX12398]
Blank Spike Lab ID: 1455956
Date Analyzed: 06/27/2018 15:37

Spike Duplicate ID: LCSD for HBN 1183188 [WXX12398]
Spike Duplicate Lab ID: 1455957
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.990	99	1	1.05	105	(75-125)	5.50	(< 25)

Batch Information

Analytical Batch: **WDA4319**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12398**
Prep Method: **METHOD**
Prep Date/Time: **06/27/2018 15:00**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1183188004
MS Sample ID: 1455958 MS
MSD Sample ID: 1455959 MSD

Analysis Date: 06/27/2018 15:47
Analysis Date: 06/27/2018 15:48
Analysis Date: 06/27/2018 15:50
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.100	1.00	1.04	94	1.00	0.944	84	75-125	9.20	(< 25)

Batch Information

Analytical Batch: WDA4319
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/27/2018 3:48:54PM

Prep Batch: WXX12398
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/27/2018 3:00:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/09/2018 11:15:59AM

Method Blank

Blank ID: MB for HBN 1781756 [WXX/12399]
Blank Lab ID: 1456130

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/28/2018 3:28:23PM

Prep Batch: WXX12399
Prep Method: METHOD
Prep Date/Time: 6/27/2018 5:50:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [WXX12399]
Blank Spike Lab ID: 1456131
Date Analyzed: 06/28/2018 15:29

Spike Duplicate ID: LCSD for HBN 1183188 [WXX12399]
Spike Duplicate Lab ID: 1456132
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	3.68	92	4	3.30	83	(75-125)	10.80	(< 25)

Batch Information

Analytical Batch: **WDA4320**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12399**
Prep Method: **METHOD**
Prep Date/Time: **06/27/2018 17:50**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183188004
MS Sample ID: 1456133 MS
MSD Sample ID: 1456134 MSD

Analysis Date: 06/28/2018 15:37
Analysis Date: 06/28/2018 15:38
Analysis Date: 06/28/2018 15:40
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188001, 1183188002, 1183188003, 1183188004, 1183188005, 1183188006, 1183188007, 1183188008, 1183188009, 1183188010

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	3.74	94	4.00	3.78	95	75-125	1.00	(< 25)

Batch Information

Analytical Batch: WDA4320
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/28/2018 3:38:48PM

Prep Batch: WXX12399
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/27/2018 5:50:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/09/2018 11:16:03AM

Method Blank

Blank ID: MB for HBN 1781813 [WXX/12401]
Blank Lab ID: 1456383

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183188002, 1183188003, 1183188005, 1183188008, 1183188009

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

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 6/29/2018 2:19:41PM

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/29/2018 11:22:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183188 [WXX12401]
Blank Spike Lab ID: 1456384
Date Analyzed: 06/29/2018 14:20

Spike Duplicate ID: LCSD for HBN 1183188 [WXX12401]
Spike Duplicate Lab ID: 1456385
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188002, 1183188003, 1183188005, 1183188008, 1183188009

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.208	104	0.2	0.200	100	(85-115)	4.40	(< 25)

Batch Information

Analytical Batch: **WDA4321**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX12401**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/29/2018 11:22**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1189456001
MS Sample ID: 1456386 MS
MSD Sample ID: 1456387 MSD

Analysis Date: 06/29/2018 14:28
Analysis Date: 06/29/2018 14:31
Analysis Date: 06/29/2018 14:32
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183188002, 1183188003, 1183188005, 1183188008, 1183188009

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

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0100U	0.200	.207	104	0.200	0.205	103	75-125	0.97	(< 25)

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 6/29/2018 2:31:27PM

Prep Batch: WXX12401
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/29/2018 11:22:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/09/2018 11:16:07AM

SGS

SGS CHAIN OF CUSTODY

1183188

Locations Nationwide
Alaska Maryland
New Jersey New York
North Carolina Florida

www.us.sgs.com

Page 1 of 1

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

Section 1

CLIENT: Stantec

CONTACT: Jake Allward PHONE #: 343-5202

PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL: jake.allward@stantec.com

INVOICE TO: Stantec QUOTE #: P.O. #: 20470415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	6020A - RCRA + Cu/Zn	TKN/Ammonia			REMARKS/LOC ID
1	A-D MW17	6/26/18	10:16		4	G			1			1	1	1			
2	A-F SW10		1038		6		1	1	1	1	1	1					
3	A-F SW9		1056		6		1	1	1	1	1	1					
4	A-D MW8		1106		4				1			1	1	1			
5	A-F SW8		1142		6		1	1	1	1	1	1					
6	A-D MW16		1300		4				1			1	1	1			
7	A-D MW12		13:33		4				1			1	1	1			
8	A-G SW6		14:33		7		1	1	1	1	1	1	1				
9	A-G SW15		15:03		7		1	1	1	1	1	1	1				
10	A-D ~~MW~~ MW13		15:17		4				1			1	1	1			

Section 3 Preservative

Section 4

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Section 5

	Date	Time	
Relinquished By: (1)	6/26/18	17:24	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 6/26/18	Time 1724	Received For Laboratory By: NSN

Temp Blank °C: 3.5(Dec) 5.7(Dec) or Ambient [ ]

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

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

63 of 66

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

F083-Blank_COC_Templates_2015-03-19

e-Sample Receipt Form

SGS Workorder #: **1183188**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		n/a Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	hand delivered
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 3.5 °C Therm. ID: D26
	yes	Cooler ID: 2 @ 5.7 °C Therm. ID: D30
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
		n/a ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition
1183188001-A	Na2S2O3 for Chlorine Redu	OK
1183188001-B	No Preservative Required	OK
1183188001-C	HNO3 to pH < 2	OK
1183188001-D	H2SO4 to pH < 2	OK
1183188002-A	No Preservative Required	OK
1183188002-B	No Preservative Required	OK
1183188002-C	Na2S2O3 for Chlorine Redu	OK
1183188002-D	Na2S2O3 for Chlorine Redu	OK
1183188002-E	No Preservative Required	OK
1183188002-F	H2SO4 to pH < 2	OK
1183188003-A	No Preservative Required	OK
1183188003-B	No Preservative Required	OK
1183188003-C	Na2S2O3 for Chlorine Redu	OK
1183188003-D	Na2S2O3 for Chlorine Redu	OK
1183188003-E	No Preservative Required	OK
1183188003-F	H2SO4 to pH < 2	OK
1183188004-A	Na2S2O3 for Chlorine Redu	OK
1183188004-B	No Preservative Required	OK
1183188004-C	HNO3 to pH < 2	OK
1183188004-D	H2SO4 to pH < 2	OK
1183188005-A	No Preservative Required	OK
1183188005-B	No Preservative Required	OK
1183188005-C	Na2S2O3 for Chlorine Redu	OK
1183188005-D	Na2S2O3 for Chlorine Redu	OK
1183188005-E	No Preservative Required	OK
1183188005-F	H2SO4 to pH < 2	OK
1183188006-A	Na2S2O3 for Chlorine Redu	OK
1183188006-B	No Preservative Required	OK
1183188006-C	HNO3 to pH < 2	OK
1183188006-D	H2SO4 to pH < 2	OK
1183188007-A	Na2S2O3 for Chlorine Redu	OK
1183188007-B	No Preservative Required	OK
1183188007-C	HNO3 to pH < 2	OK
1183188007-D	H2SO4 to pH < 2	OK
1183188008-A	No Preservative Required	OK
1183188008-B	No Preservative Required	OK
1183188008-C	Na2S2O3 for Chlorine Redu	OK
1183188008-D	Na2S2O3 for Chlorine Redu	OK
1183188008-E	No Preservative Required	OK
1183188008-F	HNO3 to pH < 2	OK
1183188008-G	H2SO4 to pH < 2	OK
1183188009-A	No Preservative Required	OK
1183188009-B	No Preservative Required	OK
1183188009-C	Na2S2O3 for Chlorine Redu	OK
1183188009-D	Na2S2O3 for Chlorine Redu	OK
1183188009-E	No Preservative Required	OK
1183188009-F	HNO3 to pH < 2	OK
1183188009-G	H2SO4 to pH < 2	OK
1183188010-A	Na2S2O3 for Chlorine Redu	OK
1183188010-B	No Preservative Required	OK
1183188010-C	HNO3 to pH < 2	OK
1183188010-D	H2SO4 to pH < 2	OK

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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.

Laboratory Report of Analysis

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

Report Number: **1183253**

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 Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183253**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW18 (1183253003) PS

5210-BOD- Dissolved oxygen (1.89 mg/L) did not adequately deplete at min depletion requirement of 2 mg/L. Sample reported with an elevated detection limit. Results are estimated and may be biased high. Sample reported with a greater than value.

Dup2 (1183253004) PS

5210-BOD- Dissolved oxygen (1.68 mg/L) did not adequately deplete at min depletion requirement of 2 mg/L. Sample reported with an elevated detection limit. Results are estimated and may be biased high. Sample reported with a greater than value.

1183236001DUP (1455996) DUP

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. The difference between sample and duplicate results is less than the LOQ.

1183253004MS (1456234) MS

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

1183253004MS (1456678) MS

4500N-D - Total Kjeldahl Nitrogen - MS recovery (57%) is outside of QC criteria. Refer to LCS for accuracy requirements.

1183253004MSD (1456235) MSD

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

1183253004MSD (1456679) MSD

4500N-D - Total Kjeldahl Nitrogen - MSD recovery (72%) is outside of QC criteria. Refer to LCSD for accuracy requirements.

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

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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). 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
U	Indicates the analyte was analyzed for but not detected.

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW14	1183253001	06/28/2018	06/28/2018	Water (Surface, Eff., Ground)
SW17	1183253002	06/28/2018	06/28/2018	Water (Surface, Eff., Ground)
SW18	1183253003	06/28/2018	06/28/2018	Water (Surface, Eff., Ground)
Dup2	1183253004	06/28/2018	06/28/2018	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
SM21 4500NO3-F	Flow Injection Analysis
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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

Detectable Results Summary

Client Sample ID: **SW14**
Lab Sample ID: 1183253001

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	10.1	mg/L
	Total Coliform	19860	MPN/100mL
Waters Department	Ammonia-N	0.0334J	mg/L
	Total Phosphorus	0.0682	mg/L
	Total Suspended Solids	1.90	mg/L

Client Sample ID: **SW17**
Lab Sample ID: 1183253002

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	130	MPN/100mL
	Fecal Coliform	109	col/100mL
	Total Coliform	866	MPN/100mL
Waters Department	Ammonia-N	0.132	mg/L
	Nitrate-N	1.07	mg/L
	Total Phosphorus	0.241	mg/L
	Total Suspended Solids	7.88	mg/L

Client Sample ID: **SW18**
Lab Sample ID: 1183253003

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	GT4.08	mg/L
	E. Coli	613	MPN/100mL
	Fecal Coliform	460	col/100mL
	Total Coliform	1553	MPN/100mL
Waters Department	Ammonia-N	0.553	mg/L
	Nitrate-N	8.25	mg/L
	Nitrite-N	0.106	mg/L
	Total Kjeldahl Nitrogen	0.496J	mg/L
	Total Phosphorus	0.787	mg/L
	Total Suspended Solids	11.3	mg/L

Client Sample ID: **Dup2**
Lab Sample ID: 1183253004

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	GT3.45	mg/L
	E. Coli	816	MPN/100mL
	Fecal Coliform	560	col/100mL
	Total Coliform	1414	MPN/100mL
Waters Department	Ammonia-N	0.630	mg/L
	Nitrate-N	8.37	mg/L
	Nitrite-N	0.108J	mg/L
	Total Phosphorus	0.759	mg/L
	Total Suspended Solids	14.1	mg/L

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

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253001
Lab Project ID: 1183253

Collection Date: 06/28/18 10:37
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	10.1		2.00	2.00	mg/L	1		06/28/18 17:08

Batch Information

Analytical Batch: BOD6075
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/28/18 17:08
Container ID: 1183253001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/28/18 15:50

Batch Information

Analytical Batch: BTF16667
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/28/18 15:50
Container ID: 1183253001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1	U	1	1	MPN/100m	1		06/28/18 16:08
Total Coliform	19860		10	10	MPN/100m	10		06/28/18 16:08

Batch Information

Analytical Batch: BTF16666
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/28/18 16:08
Container ID: 1183253001-D

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253001
Lab Project ID: 1183253

Collection Date: 06/28/18 10:37
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.90		1.00	0.310	mg/L	1		06/28/18 17:46

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/28/18 17:46
Container ID: 1183253001-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/29/18 17:32

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/29/18 17:32
Container ID: 1183253001-E

Prep Batch: WXX12405
Prep Method: METHOD
Prep Date/Time: 06/29/18 09:54
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0334 J		0.100	0.0310	mg/L	1		07/02/18 14:27

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/02/18 14:27
Container ID: 1183253001-E

Prep Batch: WXX12406
Prep Method: METHOD
Prep Date/Time: 07/02/18 13:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		06/28/18 17:05
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/28/18 17:05

Print Date: 07/03/2018 1:17:18PM

J flagging is activated

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253001
Lab Project ID: 1183253

Collection Date: 06/28/18 10:37
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/28/18 17:05
Container ID: 1183253001-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0682		0.0200	0.00500	mg/L	1		06/29/18 15:21

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:21
Container ID: 1183253001-E

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253002
Lab Project ID: 1183253

Collection Date: 06/28/18 11:08
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		06/28/18 17:08

Batch Information

Analytical Batch: BOD6075
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/28/18 17:08
Container ID: 1183253002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	109		1.00	1.00	col/100mL	1		06/28/18 15:50

Batch Information

Analytical Batch: BTF16667
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/28/18 15:50
Container ID: 1183253002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	130		1	1	MPN/100m	1		06/28/18 16:08
Total Coliform	866		1	1	MPN/100m	1		06/28/18 16:08

Batch Information

Analytical Batch: BTF16666
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/28/18 16:08
Container ID: 1183253002-D

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253002
Lab Project ID: 1183253

Collection Date: 06/28/18 11:08
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	7.88		1.01	0.313	mg/L	1		06/28/18 17:46

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/28/18 17:46
Container ID: 1183253002-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/29/18 17:33

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/29/18 17:33
Container ID: 1183253002-E

Prep Batch: WXX12405
Prep Method: METHOD
Prep Date/Time: 06/29/18 09:54
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.132		0.100	0.0310	mg/L	1		07/02/18 14:28

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/02/18 14:28
Container ID: 1183253002-E

Prep Batch: WXX12406
Prep Method: METHOD
Prep Date/Time: 07/02/18 13:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.07		0.100	0.0250	mg/L	2		06/28/18 17:06
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		06/28/18 17:06

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253002
Lab Project ID: 1183253

Collection Date: 06/28/18 11:08
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/28/18 17:06
Container ID: 1183253002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.241		0.0200	0.00500	mg/L	1		06/29/18 15:22

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 15:22
Container ID: 1183253002-E

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253003
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	>4.08		6.00	6.00	mg/L	1		06/28/18 17:08

Batch Information

Analytical Batch: BOD6075
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/28/18 17:08
Container ID: 1183253003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	460		10.0	10.0	col/100mL	1		06/28/18 15:50

Batch Information

Analytical Batch: BTF16667
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/28/18 15:50
Container ID: 1183253003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	613		1	1	MPN/100m	1		06/28/18 16:08
Total Coliform	1553		1	1	MPN/100m	1		06/28/18 16:08

Batch Information

Analytical Batch: BTF16666
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/28/18 16:08
Container ID: 1183253003-D

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253003
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	11.3		1.00	0.310	mg/L	1		06/28/18 17:46

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/28/18 17:46
Container ID: 1183253003-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.496	J	1.00	0.310	mg/L	1		06/29/18 17:35

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/29/18 17:35
Container ID: 1183253003-E

Prep Batch: WXX12405
Prep Method: METHOD
Prep Date/Time: 06/29/18 09:54
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.553		0.100	0.0310	mg/L	1		07/02/18 14:30

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/02/18 14:30
Container ID: 1183253003-E

Prep Batch: WXX12406
Prep Method: METHOD
Prep Date/Time: 07/02/18 13:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	8.25		0.100	0.0250	mg/L	2		06/28/18 17:08
Nitrite-N	0.106		0.100	0.0250	mg/L	2		06/28/18 17:08

Print Date: 07/03/2018 1:17:18PM

J flagging is activated

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253003
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/28/18 17:08
Container ID: 1183253003-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.787		0.200	0.0500	mg/L	1		06/29/18 14:39

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 14:39
Container ID: 1183253003-E

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

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

Results of **Dup2**

Client Sample ID: **Dup2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253004
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	>3.45		6.00	6.00	mg/L	1		06/28/18 17:08

Batch Information

Analytical Batch: BOD6075
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/28/18 17:08
Container ID: 1183253004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	560		10.0	10.0	col/100mL	1		06/28/18 15:50

Batch Information

Analytical Batch: BTF16667
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 06/28/18 15:50
Container ID: 1183253004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	816		1	1	MPN/100m	1		06/28/18 16:08
Total Coliform	1414		1	1	MPN/100m	1		06/28/18 16:08

Batch Information

Analytical Batch: BTF16666
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 06/28/18 16:08
Container ID: 1183253004-D

Results of **Dup2**

Client Sample ID: **Dup2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253004
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	14.1		0.980	0.304	mg/L	1		06/28/18 17:46

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/28/18 17:46
Container ID: 1183253004-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		06/29/18 17:36

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/29/18 17:36
Container ID: 1183253004-E

Prep Batch: WXX12405
Prep Method: METHOD
Prep Date/Time: 06/29/18 09:54
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.630		0.100	0.0310	mg/L	1		07/02/18 14:32

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/02/18 14:32
Container ID: 1183253004-E

Prep Batch: WXX12406
Prep Method: METHOD
Prep Date/Time: 07/02/18 13:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	8.37		0.200	0.0500	mg/L	4		06/28/18 17:29
Nitrite-N	0.108 J		0.200	0.0500	mg/L	4		06/28/18 17:29

Print Date: 07/03/2018 1:17:18PM

J flagging is activated

Results of **Dup2**

Client Sample ID: **Dup2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183253004
Lab Project ID: 1183253

Collection Date: 06/28/18 11:43
Received Date: 06/28/18 14:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 06/28/18 17:29
Container ID: 1183253004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.759		0.200	0.0500	mg/L	1		06/29/18 14:41

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Analyst: EWW
Analytical Date/Time: 06/29/18 14:41
Container ID: 1183253004-E

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/29/18 11:22
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Print Date: 07/03/2018 1:17:18PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1781743 [BOD/6075]
Blank Lab ID: 1456069

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 5210B**

Parameter	Results	LOQ/CL	DL	Units
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

Batch Information

Analytical Batch: BOD6075
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/28/2018 5:08:37PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [BOD6075]
Blank Spike Lab ID: 1456070
Date Analyzed: 06/28/2018 17:08

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	187	94	(84.6-115.4

Batch Information

Analytical Batch: **BOD6075**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 07/03/2018 1:17:23PM

Method Blank

Blank ID: MB for HBN 1781738 [BTF/16666]
Blank Lab ID: 1456055

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF16666
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 6/28/2018 4:08:00PM

Method Blank

Blank ID: MB for HBN 1781739 [BTF/16667]
Blank Lab ID: 1456059

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16667
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 6/28/2018 3:50:00PM

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

Method Blank

Blank ID: MB for HBN 1781721 [STS/5925]
Blank Lab ID: 1455993

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 2540D**

Parameter	Results	LOQ/CL	DL	Units
Total Suspended Solids	0.500U	1.00	0.310	mg/L

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/28/2018 5:46:18PM

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

Duplicate Sample Summary

Original Sample ID: 1183236001
Duplicate Sample ID: 1455996
QC for Samples:

Analysis Date: 06/28/2018 17:46
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	600	565	mg/L	6.00*	(< 5)

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/03/2018 1:17:31PM

Duplicate Sample Summary

Original Sample ID: 1189449001
Duplicate Sample ID: 1455997
QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Analysis Date: 06/28/2018 17:46
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	94.0	92.0	mg/L	2.20	(< 5)

Batch Information

Analytical Batch: STS5925
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/03/2018 1:17:31PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [STS5925]
Blank Spike Lab ID: 1455994
Date Analyzed: 06/28/2018 17:46

Spike Duplicate ID: LCSD for HBN 1183253 [STS5925]
Spike Duplicate Lab ID: 1455995
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	26.5	106	25	25.4	102	(75-125)	4.20	(< 5)

Batch Information

Analytical Batch: **STS5925**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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

Method Blank

Blank ID: MB for HBN 1781784 (WFI/2710)
Blank Lab ID: 1456244

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/28/2018 4:59:54PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [WFI2710]
Blank Spike Lab ID: 1456236
Date Analyzed: 06/28/2018 16:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.76	110	(70-130)
Nitrite-N	2.5	2.47	99	(90-110)
Total Nitrate/Nitrite-N	5	5.23	105	(90-110)

Batch Information

Analytical Batch: **WFI2710**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

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

Matrix Spike Summary

Original Sample ID: 1183253004
MS Sample ID: 1456234 MS
MSD Sample ID: 1456235 MSD

Analysis Date: 06/28/2018 17:29
Analysis Date: 06/28/2018 17:31
Analysis Date: 06/28/2018 17:33
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	8.37	5.00	11	53	*	5.00	12.0	72	70-130	8.10	(< 25)
Nitrite-N	0.108J	5.00	4.84	95		5.00	4.74	93	90-110	2.20	(< 25)

Batch Information

Analytical Batch: WFI2710
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 6/28/2018 5:31:24PM

Print Date: 07/03/2018 1:17:38PM

Method Blank

Blank ID: MB for HBN 1781813 [WXX/12401]
Blank Lab ID: 1456383

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

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

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 6/29/2018 2:19:41PM

Prep Batch: WXX12401
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/29/2018 11:22:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [WXX12401]
Blank Spike Lab ID: 1456384
Date Analyzed: 06/29/2018 14:20

Spike Duplicate ID: LCSD for HBN 1183253 [WXX12401]
Spike Duplicate Lab ID: 1456385
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.208	104	0.2	0.200	100	(85-115)	4.40	(< 25)

Batch Information

Analytical Batch: **WDA4321**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX12401**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/29/2018 11:22**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1189456001
MS Sample ID: 1456386 MS
MSD Sample ID: 1456387 MSD

Analysis Date: 06/29/2018 14:28
Analysis Date: 06/29/2018 14:31
Analysis Date: 06/29/2018 14:32
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

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

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0100U	0.200	.207	104	0.200	0.205	103	75-125	0.97	(< 25)

Batch Information

Analytical Batch: WDA4321
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 6/29/2018 2:31:27PM

Prep Batch: WXX12401
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/29/2018 11:22:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/03/2018 1:17:43PM

Method Blank

Blank ID: MB for HBN 1781878 [WXX/12405]
Blank Lab ID: 1456675

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	0.400J	1.00	0.310	mg/L

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/29/2018 5:28:46PM

Prep Batch: WXX12405
Prep Method: METHOD
Prep Date/Time: 6/29/2018 9:54:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [WXX12405]
Blank Spike Lab ID: 1456676
Date Analyzed: 06/29/2018 17:30

Spike Duplicate ID: LCSD for HBN 1183253 [WXX12405]
Spike Duplicate Lab ID: 1456677
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	3.36	84	4	3.19	80	(75-125)	5.30	(< 25)

Batch Information

Analytical Batch: **WDA4324**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12405**
Prep Method: **METHOD**
Prep Date/Time: **06/29/2018 09:54**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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

Matrix Spike Summary

Original Sample ID: 1183253004
MS Sample ID: 1456678 MS
MSD Sample ID: 1456679 MSD

Analysis Date: 06/29/2018 17:36
Analysis Date: 06/29/2018 17:37
Analysis Date: 06/29/2018 17:38
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)						
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	2.29	57	*	4.00	2.90	73	*	75-125	23.40	(< 25)

Batch Information

Analytical Batch: WDA4324
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/29/2018 5:37:35PM

Prep Batch: WXX12405
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/29/2018 9:54:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/03/2018 1:17:47PM

Method Blank

Blank ID: MB for HBN 1781906 [WXX/12406]
Blank Lab ID: 1456787

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0500U	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/2/2018 2:22:09PM

Prep Batch: WXX12406
Prep Method: METHOD
Prep Date/Time: 7/2/2018 1:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183253 [WXX12406]
Blank Spike Lab ID: 1456788
Date Analyzed: 07/02/2018 14:23

Spike Duplicate ID: LCSD for HBN 1183253 [WXX12406]
Spike Duplicate Lab ID: 1456789
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	0.846	85	1	0.972	97	(75-125)	13.90	(< 25)

Batch Information

Analytical Batch: **WDA4325**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12406**
Prep Method: **METHOD**
Prep Date/Time: **07/02/2018 13:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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

Matrix Spike Summary

Original Sample ID: 1189467001
MS Sample ID: 1456790 MS
MSD Sample ID: 1456791 MSD

Analysis Date: 07/02/2018 14:47
Analysis Date: 07/02/2018 14:48
Analysis Date: 07/02/2018 14:50
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183253001, 1183253002, 1183253003, 1183253004

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0500U	1.00	.966	97	1.00	0.963	96	75-125	0.34	(< 25)

Batch Information

Analytical Batch: WDA4325
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/2/2018 2:48:59PM

Prep Batch: WXX12406
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 7/2/2018 1:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/03/2018 1:17:51PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1183253

Locations Nationwide
ca Maryland
Jersey New York
n Carolina Florida

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Alward — PHONE #: 343-5202

PROJECT NAME: Wasilla WWTP — PROJECT/ PWSID/ PERMIT#:

REPORTS TO: — E-MAIL: jake.alward@stantec.com

INVOICE TO: Stantec — QUOTE #: — P.O. #: 2047004115

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	6020A - RCRA + Cu/Zn				REMARKS/LOC ID
1	A-F	SW14	6/28/18	1037													
2	A-F	SW17		1108													
3	A-F	SW18		1143													
4	A-F	DUP2		1143													

Section 3 — Preservative

Section 4 — DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Section 5

	Date	Time	
Relinquished By: (1)	6/28/18	14:08	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	6/28/18	14:08	Received For Laboratory By: KET

Temp Blank °C: 3.1 DIO or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

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

e-Sample Receipt Form

SGS Workorder #: **1183253**

1 1 8 3 2 5 3

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		yes Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	
COC accompanied samples?	yes	
yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 3.1 °C Therm. ID: D10
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
	n/a	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	n/a	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1183253001-A	Cool to 4 C	OK			
1183253001-B	No Preservative Required	OK			
1183253001-C	Na2S2O3 for Chlorine Redu	OK			
1183253001-D	Na2S2O3 for Chlorine Redu	OK			
1183253001-E	H2SO4 to pH < 2	OK			
1183253001-F	No Preservative Required	OK			
1183253002-A	Cool to 4 C	OK			
1183253002-B	No Preservative Required	OK			
1183253002-C	Na2S2O3 for Chlorine Redu	OK			
1183253002-D	Na2S2O3 for Chlorine Redu	OK			
1183253002-E	H2SO4 to pH < 2	OK			
1183253002-F	No Preservative Required	OK			
1183253003-A	Cool to 4 C	OK			
1183253003-B	No Preservative Required	OK			
1183253003-C	Na2S2O3 for Chlorine Redu	OK			
1183253003-D	Na2S2O3 for Chlorine Redu	OK			
1183253003-E	H2SO4 to pH < 2	OK			
1183253003-F	No Preservative Required	OK			
1183253004-A	Cool to 4 C	OK			
1183253004-B	No Preservative Required	OK			
1183253004-C	Na2S2O3 for Chlorine Redu	OK			
1183253004-D	Na2S2O3 for Chlorine Redu	OK			
1183253004-E	H2SO4 to pH < 2	OK			
1183253004-F	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.
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.