Laboratory Report of Analysis

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

Report Number: **1193136**

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: **1193136**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW3 (1193136008) PS

9222D- Fecal coliform sample had matrix interference with growth of colonies and a count could not be obtained.

1193136006MSD (1513642) MSD

4500NO3-F - Nitrate/Nitrite - MSD recovery for Nitrite and 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. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry (DW Chemistry (Provisionally Certified as of 6/20/19 for Turbidity by SM 2130B, and Copper by EPA 200.8) & 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
SW1	1193136001	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
B1	1193136002	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
B4	1193136003	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
B3	1193136004	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
MW6	1193136005	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
M10	1193136006	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
M15	1193136007	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
SW3	1193136008	06/17/2019	06/17/2019	Water (Surface, Eff., Ground)
MW2B	1193136009	06/17/2019	06/17/2019	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

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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: 1193136001

Parameter	Result	Units
Microbiology Laboratory		
Biochemical Oxygen Demand	15.6	mg/L
Fecal Coliform	2.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Waters Department		
Ammonia-N	0.104	mg/L
Total Kjeldahl Nitrogen	0.891J	mg/L
Total Phosphorus	0.179	mg/L
Total Suspended Solids	40.4	mg/L

Client Sample ID: **B1**
Lab Sample ID: 1193136002

Parameter	Result	Units
Waters Department		
Ammonia-N	0.124	mg/L

Client Sample ID: **B4**
Lab Sample ID: 1193136003

Parameter	Result	Units
Waters Department		
Ammonia-N	0.0670J	mg/L
Nitrate-N	1.48	mg/L

Client Sample ID: **B3**
Lab Sample ID: 1193136004

Parameter	Result	Units
Waters Department		
Ammonia-N	0.143	mg/L
Nitrite-N	0.0904J	mg/L

Client Sample ID: **MW6**
Lab Sample ID: 1193136005

Parameter	Result	Units
Waters Department		
Ammonia-N	0.137	mg/L

Client Sample ID: **M10**
Lab Sample ID: 1193136006

Parameter	Result	Units
Waters Department		
Ammonia-N	0.0522J	mg/L
Nitrate-N	0.114J	mg/L

Client Sample ID: **M15**
Lab Sample ID: 1193136007

Parameter	Result	Units
Waters Department		
Ammonia-N	0.311	mg/L
Nitrate-N	0.0554J	mg/L
Total Kjeldahl Nitrogen	0.476J	mg/L

Client Sample ID: **SW3**
Lab Sample ID: 1193136008

Parameter	Result	Units
Microbiology Laboratory		
Biochemical Oxygen Demand	4.47	mg/L
E. Coli	60	MPN/100mL
Total Coliform	17330	MPN/100mL
Waters Department		
Ammonia-N	0.0876J	mg/L
Total Kjeldahl Nitrogen	0.664J	mg/L
Total Phosphorus	0.343	mg/L
Total Suspended Solids	114	mg/L

Detectable Results Summary

Client Sample ID: **MW2B**
Lab Sample ID: 1193136009
Waters Department

Parameter	Result	Units
Ammonia-N	0.152	mg/L
Nitrate-N	0.0528J	mg/L

Print Date: 07/02/2019 10:24:31AM

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136001
Lab Project ID: 1193136

Collection Date: 06/17/19 11:14
Received Date: 06/17/19 16:18
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	15.6		2.00	2.00	mg/L	1		06/18/19 12:07

Batch Information

Analytical Batch: BOD6342
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/18/19 12:07
Container ID: 1193136001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	2.0		1.00	1.00	col/100mL	1		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10	U	10	10	MPN/100m	10		06/17/19 17:50
Total Coliform	>2420		10	10	MPN/100m	10		06/17/19 17:50

Batch Information

Analytical Batch: BTF17414
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/17/19 17:50
Container ID: 1193136001-B

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136001
Lab Project ID: 1193136

Collection Date: 06/17/19 11:14
Received Date: 06/17/19 16:18
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	40.4		2.00	0.620	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193136001-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.891 J		1.00	0.310	mg/L	1		07/01/19 18:17

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:17
Container ID: 1193136001-D

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.104		0.100	0.0310	mg/L	1		06/25/19 15:47

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 15:47
Container ID: 1193136001-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/17/19 17:10
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/17/19 17:10

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136001
Lab Project ID: 1193136

Collection Date: 06/17/19 11:14
Received Date: 06/17/19 16:18
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:10
Container ID: 1193136001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.179		0.0200	0.00500	mg/L	1		06/26/19 18:38

Batch Information

Analytical Batch: WDA4588
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/26/19 18:38
Container ID: 1193136001-D

Prep Batch: WXX12887
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/26/19 15:17
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136002
Lab Project ID: 1193136

Collection Date: 06/17/19 12:45
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136002-A

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136002
Lab Project ID: 1193136

Collection Date: 06/17/19 12:45
Received Date: 06/17/19 16:18
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		07/01/19 18:19

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:19
Container ID: 1193136002-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.124		0.100	0.0310	mg/L	1		06/25/19 15:49

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 15:49
Container ID: 1193136002-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:12
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:12

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:12
Container ID: 1193136002-B

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136003
Lab Project ID: 1193136

Collection Date: 06/17/19 13:30
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136003-A

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136003
Lab Project ID: 1193136

Collection Date: 06/17/19 13:30
Received Date: 06/17/19 16:18
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		07/01/19 18:22

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:22
Container ID: 1193136003-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0670	J	0.100	0.0310	mg/L	1		06/25/19 15:54

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 15:54
Container ID: 1193136003-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	1.48		0.200	0.0500	mg/L	2		06/17/19 17:19
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:19

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:19
Container ID: 1193136003-B

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **B3**

Client Sample ID: **B3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136004
Lab Project ID: 1193136

Collection Date: 06/17/19 13:53
Received Date: 06/17/19 16:18
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	10.0	U	10.0	10.0	col/100mL	1		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136004-A

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **B3**

Client Sample ID: **B3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136004
Lab Project ID: 1193136

Collection Date: 06/17/19 13:53
Received Date: 06/17/19 16:18
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		07/01/19 18:24

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:24
Container ID: 1193136004-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.143		0.100	0.0310	mg/L	1		06/25/19 15:55

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 15:55
Container ID: 1193136004-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:20
Nitrite-N	0.0904	J	0.200	0.0500	mg/L	2		06/17/19 17:20

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:20
Container ID: 1193136004-B

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136005
Lab Project ID: 1193136

Collection Date: 06/17/19 14:22
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136005-A

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136005
Lab Project ID: 1193136

Collection Date: 06/17/19 14:22
Received Date: 06/17/19 16:18
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		07/01/19 18:25

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:25
Container ID: 1193136005-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.137		0.100	0.0310	mg/L	1		06/25/19 15:57

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 15:57
Container ID: 1193136005-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:22
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:22

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:22
Container ID: 1193136005-B

Results of **M10**

Client Sample ID: **M10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136006
Lab Project ID: 1193136

Collection Date: 06/17/19 12:04
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136006-A

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **M10**

Client Sample ID: **M10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136006
Lab Project ID: 1193136

Collection Date: 06/17/19 12:04
Received Date: 06/17/19 16:18
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		07/01/19 18:29

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:29
Container ID: 1193136006-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0522	J	0.100	0.0310	mg/L	1		06/25/19 16:02

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:02
Container ID: 1193136006-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.114	J	0.200	0.0500	mg/L	2		06/17/19 17:24
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:24

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:24
Container ID: 1193136006-B

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **M15**

Client Sample ID: **M15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136007
Lab Project ID: 1193136

Collection Date: 06/17/19 12:20
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136007-A

Results of **M15**

Client Sample ID: **M15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136007
Lab Project ID: 1193136

Collection Date: 06/17/19 12:20
Received Date: 06/17/19 16:18
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	0.476	J	1.00	0.310	mg/L	1		07/01/19 18:30

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:30
Container ID: 1193136007-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.311		0.100	0.0310	mg/L	1		06/25/19 16:04

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:04
Container ID: 1193136007-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.0554	J	0.200	0.0500	mg/L	2		06/17/19 17:29
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:29

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:29
Container ID: 1193136007-B

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136008
Lab Project ID: 1193136

Collection Date: 06/17/19 14:06
Received Date: 06/17/19 16:18
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	4.47		2.00	2.00	mg/L	1		06/18/19 12:07

Batch Information

Analytical Batch: BOD6342
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/18/19 12:07
Container ID: 1193136008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	60		10	10	MPN/100m	10		06/17/19 17:50
Total Coliform	17330		10	10	MPN/100m	10		06/17/19 17:50

Batch Information

Analytical Batch: BTF17414
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 06/17/19 17:50
Container ID: 1193136008-B

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136008
Lab Project ID: 1193136

Collection Date: 06/17/19 14:06
Received Date: 06/17/19 16:18
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	114		5.00	1.55	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193136008-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.664 J		1.00	0.310	mg/L	1		07/01/19 18:32

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:32
Container ID: 1193136008-D

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0876 J		0.100	0.0310	mg/L	1		06/25/19 16:05

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:05
Container ID: 1193136008-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/17/19 17:31
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/17/19 17:31

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136008
Lab Project ID: 1193136

Collection Date: 06/17/19 14:06
Received Date: 06/17/19 16:18
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:31
Container ID: 1193136008-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.343		0.0200	0.00500	mg/L	1		06/26/19 18:39

Batch Information

Analytical Batch: WDA4588
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/26/19 18:39
Container ID: 1193136008-D

Prep Batch: WXX12887
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/26/19 15:17
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Results of **MW2B**

Client Sample ID: **MW2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136009
Lab Project ID: 1193136

Collection Date: 06/17/19 11:49
Received Date: 06/17/19 16:18
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		06/17/19 17:52

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/17/19 17:52
Container ID: 1193136009-A

Results of **MW2B**

Client Sample ID: **MW2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193136009
Lab Project ID: 1193136

Collection Date: 06/17/19 11:49
Received Date: 06/17/19 16:18
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		07/01/19 18:33

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:33
Container ID: 1193136009-C

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.152		0.100	0.0310	mg/L	1		06/25/19 16:07

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:07
Container ID: 1193136009-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.0528	J	0.200	0.0500	mg/L	2		06/17/19 17:33
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/17/19 17:33

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/17/19 17:33
Container ID: 1193136009-B

Print Date: 07/02/2019 10:24:32AM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1795186 [BOD/6342]
Blank Lab ID: 1513702

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136008

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: BOD6342
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/18/2019 12:07:46PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [BOD6342]
Blank Spike Lab ID: 1513703
Date Analyzed: 06/18/2019 12:07

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136008

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	227	115	(84.6-115.4

Batch Information

Analytical Batch: **BOD6342**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 07/02/2019 10:24:36AM

Method Blank

Blank ID: MB for HBN 1795105 [BTF/17412]
Blank Lab ID: 1513337

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136009

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17412
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 6/17/2019 5:52:48PM

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Method Blank

Blank ID: MB for HBN 1795107 [BTF/17414]
Blank Lab ID: 1513341

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136008

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: BTF17414
Analytical Method: SM21 9223B
Instrument:
Analyst: DSH
Analytical Date/Time: 6/17/2019 5:50:11PM

Method Blank

Blank ID: MB for HBN 1795348 [STS/6333]
Blank Lab ID: 1514423

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136008

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: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/21/2019 3:05:30PM

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Duplicate Sample Summary

Original Sample ID: 1193243004
Duplicate Sample ID: 1514424
QC for Samples:
1193136001, 1193136008

Analysis Date: 06/21/2019 15:05
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	855	835	mg/L	2.40	(< 5)

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/02/2019 10:24:42AM

Duplicate Sample Summary

Original Sample ID: 1193142001
Duplicate Sample ID: 1514427
QC for Samples:
1193136001, 1193136008

Analysis Date: 06/21/2019 15:05
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	14.0	14.0	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/02/2019 10:24:42AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [STS6335]
Blank Spike Lab ID: 1514425
Date Analyzed: 06/21/2019 15:05

Spike Duplicate ID: LCSD for HBN 1193136 [STS6335]
Spike Duplicate Lab ID: 1514426
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136008

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	23.6	94	25	24.0	96	(75-125)	1.70	(< 5)

Batch Information

Analytical Batch: **STS6335**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1795176 (WFI/2822)
Blank Lab ID: 1513678

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0508J	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.0670J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/17/2019 3:30:55PM

Method Blank

Blank ID: MB for HBN 1795176 (WFI/2822) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1513680

QC for Samples:
1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0554J	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.0674J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/17/2019 4:16:25PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [WFI2822]
Blank Spike Lab ID: 1513677
Date Analyzed: 06/17/2019 15:29

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.66	106	(70-130)
Nitrite-N	2.5	2.50	100	(90-110)
Total Nitrate/Nitrite-N	5	5.16	103	(90-110)

Batch Information

Analytical Batch: **WFI2822**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

Print Date: 07/02/2019 10:24:47AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [WFI2822]
Blank Spike Lab ID: 1513679
Date Analyzed: 06/17/2019 16:14

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.42	97	(70-130)
Nitrite-N	2.5	2.39	96	(90-110)
Total Nitrate/Nitrite-N	5	4.82	96	(90-110)

Batch Information

Analytical Batch: **WFI2822**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

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Matrix Spike Summary

Original Sample ID: 1193136006
MS Sample ID: 1513641 MS
MSD Sample ID: 1513642 MSD

Analysis Date: 06/17/2019 17:24
Analysis Date: 06/17/2019 17:26
Analysis Date: 06/17/2019 17:27
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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	0.114J	2.50	2.7	103	2.50	2.27	86		70-130	17.30	(< 25)
Nitrite-N	0.100U	2.50	2.39	96	2.50	2.17	87	*	90-110	9.90	(< 25)

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/17/2019 5:26:04PM

Print Date: 07/02/2019 10:24:48AM

Matrix Spike Summary

Original Sample ID: 1199410001
MS Sample ID: 1513643 MS
MSD Sample ID: 1513644 MSD

Analysis Date: 06/17/2019 15:34
Analysis Date: 06/17/2019 15:36
Analysis Date: 06/17/2019 15:37
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.274	5.00	5.76	110	5.00	6.12	117 *	90-110	6.00	(< 25)

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/17/2019 3:36:10PM

Print Date: 07/02/2019 10:24:48AM

Matrix Spike Summary

Original Sample ID: 1199423001
MS Sample ID: 1513645 MS
MSD Sample ID: 1513646 MSD

Analysis Date: 06/17/2019 14:59
Analysis Date: 06/17/2019 15:01
Analysis Date: 06/17/2019 15:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.141J	5.00	5.49	107	5.00	5.44	106	90-110	0.79	(< 25)

Batch Information

Analytical Batch: WFI2822
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/17/2019 3:01:10PM

Print Date: 07/02/2019 10:24:48AM

Method Blank

Blank ID: MB for HBN 1795538 [WXX/12885]
Blank Lab ID: 1515243

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0553J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 3:42:35PM

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 6/25/2019 2:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 07/02/2019 10:24:49AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [WXX12885]
Blank Spike Lab ID: 1515244
Date Analyzed: 06/25/2019 15:44

Spike Duplicate ID: LCSD for HBN 1193136 [WXX12885]
Spike Duplicate Lab ID: 1515245
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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	1.10	110	1	1.11	111	(75-125)	0.66	(< 25)

Batch Information

Analytical Batch: **WDA4587**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12885**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2019 14:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1193136002
MS Sample ID: 1515246 MS
MSD Sample ID: 1515247 MSD

Analysis Date: 06/25/2019 15:49
Analysis Date: 06/25/2019 15:50
Analysis Date: 06/25/2019 15:52
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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	0.124	1.00	1.22	110	1.00	1.21	108	75-125	1.20	(< 25)

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 3:50:58PM

Prep Batch: WXX12885
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/25/2019 2:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/02/2019 10:24:51AM

Method Blank

Blank ID: MB for HBN 1795551 [WXX/12887]
Blank Lab ID: 1515310

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136008

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: WDA4588
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2019 6:16:02PM

Prep Batch: WXX12887
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/26/2019 3:17:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [WXX12887]
Blank Spike Lab ID: 1515311
Date Analyzed: 06/26/2019 18:17

Spike Duplicate ID: LCSD for HBN 1193136 [WXX12887]
Spike Duplicate Lab ID: 1515312
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136008

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	0.206	103	0.2	0.208	104	(75-125)	1.00	(< 25)

Batch Information

Analytical Batch: **WDA4588**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12887**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **06/26/2019 15:17**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1199410001
MS Sample ID: 1515313 MS
MSD Sample ID: 1515314 MSD

Analysis Date: 06/26/2019 18:18
Analysis Date: 06/26/2019 18:19
Analysis Date: 06/26/2019 18:20
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136008

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	.21	105	0.200	0.203	102	75-125	3.30	(< 25)

Batch Information

Analytical Batch: WDA4588
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/26/2019 6:19:56PM

Prep Batch: WXX12887
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 6/26/2019 3:17:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/02/2019 10:24:54AM

Method Blank

Blank ID: MB for HBN 1795733 [WXX/12893]
Blank Lab ID: 1516092

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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: WDA4590
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/1/2019 6:13:45PM

Prep Batch: WXX12893
Prep Method: METHOD
Prep Date/Time: 7/1/2019 10:52:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193136 [WXX12893]
Blank Spike Lab ID: 1516093
Date Analyzed: 07/01/2019 18:15

Spike Duplicate ID: LCSD for HBN 1193136 [WXX12893]
Spike Duplicate Lab ID: 1516094
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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	3.80	95	4	3.68	92	(75-125)	3.10	(< 25)

Batch Information

Analytical Batch: **WDA4590**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12893**
Prep Method: **METHOD**
Prep Date/Time: **07/01/2019 10:52**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193136002
MS Sample ID: 1516095 MS
MSD Sample ID: 1516096 MSD

Analysis Date: 07/01/2019 18:19
Analysis Date: 07/01/2019 18:20
Analysis Date: 07/01/2019 18:21
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193136001, 1193136002, 1193136003, 1193136004, 1193136005, 1193136006, 1193136007, 1193136008, 1193136009

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	3.81	95	4.00	3.78	94	75-125	0.82	(< 25)

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/1/2019 6:20:18PM

Prep Batch: WXX12893
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/1/2019 10:52:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/02/2019 10:24:58AM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1193136

Locations Nationwide
Alaska Maryland
New Jersey New York
North Carolina Indiana
West Virgina Kentucky
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Profic #348183

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 NO: 343-5202

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

REPORTS TO: E-MAIL: jake.alward@stantec.com

INVOICE TO: QUOTE #: P.O. #: 20170045

Section 3

Section 2 RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: BOD	TSS	FC	FC (Qualifying)	Nitrate	NH3	Ammonia				REMARKS/ LOC ID
							1	1	250ml	250ml	1	125ml	125ml				
1 AF	SW1	6/17/19	1114	Water	6	G	1	1	1	1	1		1				
2 AC	B1		1245		3				1		1	1					
3 AC	B4		1330		3				1		1	1					
4 AC	B3		1353		3				1		1	1					
5 AC	MW6		1422		3				1		1	1					
6 AC	MW10		1204		3				1		1	1					
7 AC	MW5		1220		3				1		1	1					
8 AF	SW3		1406		6		1	1	1	1	1		1				
9 AC	MW2B		1149		3				1		1	1					

Section 5

	Date	Time	Received By:
Relinquished By: (1) Alexis Baker	06/17/19	4:18	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	06/17/19	16:18	Received For Laboratory By: dmm

Section 4

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 4.0°C DSZ

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #: **1193136**

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	HD
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?		
☐ **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 @ 4.0 °C Therm. ID: D52
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		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	
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.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	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
1193136001-A	Na2S2O3 for Chlorine Redu	OK			
1193136001-B	Na2S2O3 for Chlorine Redu	OK			
1193136001-C	No Preservative Required	OK			
1193136001-D	H2SO4 to pH < 2	OK			
1193136001-E	No Preservative Required	OK			
1193136001-F	No Preservative Required	OK			
1193136002-A	Na2S2O3 for Chlorine Redu	OK			
1193136002-B	No Preservative Required	OK			
1193136002-C	H2SO4 to pH < 2	OK			
1193136003-A	Na2S2O3 for Chlorine Redu	OK			
1193136003-B	No Preservative Required	OK			
1193136003-C	H2SO4 to pH < 2	OK			
1193136004-A	Na2S2O3 for Chlorine Redu	OK			
1193136004-B	No Preservative Required	OK			
1193136004-C	H2SO4 to pH < 2	OK			
1193136005-A	Na2S2O3 for Chlorine Redu	OK			
1193136005-B	No Preservative Required	OK			
1193136005-C	H2SO4 to pH < 2	OK			
1193136006-A	Na2S2O3 for Chlorine Redu	OK			
1193136006-B	No Preservative Required	OK			
1193136006-C	H2SO4 to pH < 2	OK			
1193136007-A	Na2S2O3 for Chlorine Redu	OK			
1193136007-B	No Preservative Required	OK			
1193136007-C	H2SO4 to pH < 2	OK			
1193136008-A	Na2S2O3 for Chlorine Redu	OK			
1193136008-B	Na2S2O3 for Chlorine Redu	OK			
1193136008-C	No Preservative Required	OK			
1193136008-D	H2SO4 to pH < 2	OK			
1193136008-E	No Preservative Required	OK			
1193136008-F	No Preservative Required	OK			
1193136009-A	Na2S2O3 for Chlorine Redu	OK			
1193136009-B	No Preservative Required	OK			
1193136009-C	H2SO4 to pH < 2	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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: **1193168**

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: **1193168**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1193137001MS (1514197) MS

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

1193137001MSD (1514198) MSD

4500NO3-F - Nitrate/Nitrite - MSD recovery for Total Nitrite / Nitrate 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.

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry (DW Chemistry (Provisionally Certified as of 6/20/19 for Turbidity by SM 2130B, and Copper by EPA 200.8) & 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
SW4	1193168001	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW5	1193168002	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW6	1193168003	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW7	1193168004	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW8	1193168005	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW9	1193168006	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW10	1193168007	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
SW11	1193168008	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
MW8	1193168009	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
MW17	1193168010	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
B11	1193168011	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
MW16	1193168012	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
MW12	1193168013	06/18/2019	06/18/2019	Water (Surface, Eff., Ground)
DUP1	1193168014	06/18/2019	06/18/2019	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

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Detectable Results Summary

Client Sample ID: **SW4**
Lab Sample ID: 1193168001

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.92	mg/L
	E. Coli	1	MPN/100mL
	Total Coliform	727	MPN/100mL
Waters Department	Ammonia-N	0.0834J	mg/L
	Total Phosphorus	0.0152J	mg/L
	Total Suspended Solids	1.27	mg/L

Client Sample ID: **SW5**
Lab Sample ID: 1193168002

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.04	mg/L
	Total Coliform	1203	MPN/100mL
Waters Department	Ammonia-N	0.120	mg/L
	Total Kjeldahl Nitrogen	0.478J	mg/L
	Total Phosphorus	0.0316	mg/L
	Total Suspended Solids	5.83	mg/L

Client Sample ID: **SW6**
Lab Sample ID: 1193168003

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	3	MPN/100mL
	Fecal Coliform	1.0	col/100mL
	Total Coliform	649	MPN/100mL
Waters Department	Ammonia-N	0.0887J	mg/L
	Total Kjeldahl Nitrogen	0.349J	mg/L
	Total Phosphorus	0.00890J	mg/L
	Total Suspended Solids	0.693J	mg/L

Client Sample ID: **SW7**
Lab Sample ID: 1193168004

	Parameter	Result	Units
Microbiology Laboratory	Fecal Coliform	1.0	col/100mL
	Total Coliform	980	MPN/100mL
Waters Department	Ammonia-N	0.0929J	mg/L
	Total Kjeldahl Nitrogen	0.314J	mg/L
	Total Phosphorus	0.0195J	mg/L
	Total Suspended Solids	4.39	mg/L

Client Sample ID: **SW8**
Lab Sample ID: 1193168005

	Parameter	Result	Units
Microbiology Laboratory	Fecal Coliform	1.0	col/100mL
	Total Coliform	980	MPN/100mL
Waters Department	Ammonia-N	0.102	mg/L
	Total Kjeldahl Nitrogen	0.552J	mg/L
	Total Phosphorus	0.0630	mg/L
	Total Suspended Solids	2.48	mg/L

Detectable Results Summary

Client Sample ID: **SW9**
Lab Sample ID: 1193168006

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	1	MPN/100mL
	Fecal Coliform	5.0	col/100mL
	Total Coliform	727	MPN/100mL
Waters Department	Ammonia-N	0.0967J	mg/L
	Total Kjeldahl Nitrogen	0.365J	mg/L
	Total Phosphorus	0.0141J	mg/L
	Total Suspended Solids	0.900J	mg/L

Client Sample ID: **SW10**
Lab Sample ID: 1193168007

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.57	mg/L
	E. Coli	10	MPN/100mL
	Fecal Coliform	17	col/100mL
	Total Coliform	17330	MPN/100mL
Waters Department	Ammonia-N	0.115	mg/L
	Total Kjeldahl Nitrogen	0.573J	mg/L
	Total Phosphorus	0.0371	mg/L
	Total Suspended Solids	2.93	mg/L

Client Sample ID: **SW11**
Lab Sample ID: 1193168008

	Parameter	Result	Units
Microbiology Laboratory	Total Coliform	387	MPN/100mL
Waters Department	Ammonia-N	0.0893J	mg/L
	Total Phosphorus	0.0674	mg/L
	Total Suspended Solids	10.4	mg/L

Client Sample ID: **MW8**
Lab Sample ID: 1193168009

	Parameter	Result	Units
Waters Department	Ammonia-N	0.201	mg/L

Client Sample ID: **MW17**
Lab Sample ID: 1193168010

	Parameter	Result	Units
Waters Department	Ammonia-N	2.21	mg/L
	Total Kjeldahl Nitrogen	5.21	mg/L

Client Sample ID: **B11**
Lab Sample ID: 1193168011

	Parameter	Result	Units
Waters Department	Ammonia-N	0.271	mg/L

Client Sample ID: **MW16**
Lab Sample ID: 1193168012

	Parameter	Result	Units
Waters Department	Ammonia-N	0.181	mg/L
	Total Kjeldahl Nitrogen	0.319J	mg/L

Client Sample ID: **MW12**
Lab Sample ID: 1193168013

	Parameter	Result	Units
Waters Department	Ammonia-N	0.136	mg/L

Detectable Results Summary

Client Sample ID: **DUP1**
Lab Sample ID: 1193168014
Microbiology Laboratory

Waters Department

Parameter	Result	Units
E. Coli	2	MPN/100mL
Total Coliform	727	MPN/100mL
Ammonia-N	0.111	mg/L
Total Kjeldahl Nitrogen	0.358J	mg/L
Total Phosphorus	0.0141J	mg/L
Total Suspended Solids	1.19	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 **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168001
Lab Project ID: 1193168

Collection Date: 06/18/19 10:46
Received Date: 06/18/19 16:25
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	2.92		2.00	2.00	mg/L	1		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	727		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168001-B

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168001
Lab Project ID: 1193168

Collection Date: 06/18/19 10:46
Received Date: 06/18/19 16:25
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	1.27		0.980	0.304	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168001-D

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		07/01/19 18:38

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:38
Container ID: 1193168001-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0834 J		0.100	0.0310	mg/L	1		06/25/19 16:36

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:36
Container ID: 1193168001-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:42
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:42

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168001
Lab Project ID: 1193168

Collection Date: 06/18/19 10:46
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:42
Container ID: 1193168001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0152	J	0.0200	0.00500	mg/L	1		07/02/19 08:19

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:19
Container ID: 1193168001-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168002
Lab Project ID: 1193168

Collection Date: 06/18/19 11:02
Received Date: 06/18/19 16:25
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	3.04		2.00	2.00	mg/L	1		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1	U	1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	1203		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168002-B

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168002
Lab Project ID: 1193168

Collection Date: 06/18/19 11:02
Received Date: 06/18/19 16:25
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	5.83		1.04	0.323	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168002-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.478 J		1.00	0.310	mg/L	1		07/01/19 18:45

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:45
Container ID: 1193168002-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.120		0.100	0.0310	mg/L	1		06/25/19 16:44

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:44
Container ID: 1193168002-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:47
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:47

Print Date: 07/02/2019 10:26:07AM

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Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168002
Lab Project ID: 1193168

Collection Date: 06/18/19 11:02
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:47
Container ID: 1193168002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0316		0.0200	0.00500	mg/L	1		07/02/19 08:22

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:22
Container ID: 1193168002-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

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Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168003
Lab Project ID: 1193168

Collection Date: 06/18/19 10:30
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.0		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	3		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	649		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168003-B

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168003
Lab Project ID: 1193168

Collection Date: 06/18/19 10:30
Received Date: 06/18/19 16:25
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		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168003-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.349	J	1.00	0.310	mg/L	1		07/01/19 18:46

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:46
Container ID: 1193168003-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0887	J	0.100	0.0310	mg/L	1		06/25/19 16:46

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:46
Container ID: 1193168003-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 12:49
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 12:49

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168003
Lab Project ID: 1193168

Collection Date: 06/18/19 10:30
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:49
Container ID: 1193168003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.00890	J	0.0200	0.00500	mg/L	1		07/02/19 08:22

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:22
Container ID: 1193168003-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168004
Lab Project ID: 1193168

Collection Date: 06/18/19 10:10
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.0		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	980		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168004-B

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168004
Lab Project ID: 1193168

Collection Date: 06/18/19 10:10
Received Date: 06/18/19 16:25
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	4.39		1.02	0.316	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168004-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.314 J		1.00	0.310	mg/L	1		07/01/19 18:47

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:47
Container ID: 1193168004-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0929 J		0.100	0.0310	mg/L	1		06/25/19 16:47

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:47
Container ID: 1193168004-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:50
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:50

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168004
Lab Project ID: 1193168

Collection Date: 06/18/19 10:10
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:50
Container ID: 1193168004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0195	J	0.0200	0.00500	mg/L	1		07/02/19 08:23

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:23
Container ID: 1193168004-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168005
Lab Project ID: 1193168

Collection Date: 06/18/19 12:41
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.0		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	980		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168005-B

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168005
Lab Project ID: 1193168

Collection Date: 06/18/19 12:41
Received Date: 06/18/19 16:25
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	2.48		0.990	0.307	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168005-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.552 J		1.00	0.310	mg/L	1		07/01/19 18:48

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:48
Container ID: 1193168005-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.102		0.100	0.0310	mg/L	1		06/25/19 16:49

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:49
Container ID: 1193168005-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:52
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:52

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168005
Lab Project ID: 1193168

Collection Date: 06/18/19 12:41
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:52
Container ID: 1193168005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0630		0.0200	0.00500	mg/L	1		07/02/19 08:24

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:24
Container ID: 1193168005-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168006
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	5.0		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	727		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168006-B

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168006
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
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	0.900	J	1.00	0.310	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168006-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.365	J	1.00	0.310	mg/L	1		07/01/19 18:50

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:50
Container ID: 1193168006-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0967	J	0.100	0.0310	mg/L	1		06/25/19 16:51

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:51
Container ID: 1193168006-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 12:54
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 12:54

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168006
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:54
Container ID: 1193168006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0141	J	0.0200	0.00500	mg/L	1		07/02/19 08:27

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:27
Container ID: 1193168006-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168007
Lab Project ID: 1193168

Collection Date: 06/18/19 11:45
Received Date: 06/18/19 16:25
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	2.57		2.00	2.00	mg/L	1		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168007-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	17		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168007-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10		10	10	MPN/100m	10		06/18/19 18:15
Total Coliform	17330		10	10	MPN/100m	10		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168007-B

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168007
Lab Project ID: 1193168

Collection Date: 06/18/19 11:45
Received Date: 06/18/19 16:25
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	2.93		1.01	0.313	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168007-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.573 J		1.00	0.310	mg/L	1		07/01/19 18:51

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:51
Container ID: 1193168007-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.115		0.100	0.0310	mg/L	1		06/25/19 16:52

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:52
Container ID: 1193168007-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:56
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 12:56

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168007
Lab Project ID: 1193168

Collection Date: 06/18/19 11:45
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 12:56
Container ID: 1193168007-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0371		0.0200	0.00500	mg/L	1		07/02/19 08:28

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:28
Container ID: 1193168007-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168008
Lab Project ID: 1193168

Collection Date: 06/18/19 13:56
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	387		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168008-B

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168008
Lab Project ID: 1193168

Collection Date: 06/18/19 13:56
Received Date: 06/18/19 16:25
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	10.4		1.00	0.310	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168008-D

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		07/01/19 18:52

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:52
Container ID: 1193168008-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.0893 J		0.100	0.0310	mg/L	1		06/25/19 16:54

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:54
Container ID: 1193168008-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:03
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:03

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168008
Lab Project ID: 1193168

Collection Date: 06/18/19 13:56
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:03
Container ID: 1193168008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0674		0.0200	0.00500	mg/L	1		07/02/19 08:29

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:29
Container ID: 1193168008-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **MW8**

Client Sample ID: **MW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168009
Lab Project ID: 1193168

Collection Date: 06/18/19 12:35
Received Date: 06/18/19 16:25
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		06/18/19 17:30

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:30
Container ID: 1193168009-A

Results of **MW8**

Client Sample ID: **MW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168009
Lab Project ID: 1193168

Collection Date: 06/18/19 12:35
Received Date: 06/18/19 16:25
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		07/01/19 18:54

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:54
Container ID: 1193168009-C

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.201		0.100	0.0310	mg/L	1		06/25/19 16:56

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:56
Container ID: 1193168009-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:04
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:04

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:04
Container ID: 1193168009-B

Results of **MW17**

Client Sample ID: **MW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168010
Lab Project ID: 1193168

Collection Date: 06/18/19 12:00
Received Date: 06/18/19 16:25
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		06/18/19 17:45

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:45
Container ID: 1193168010-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 **MW17**

Client Sample ID: **MW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168010
Lab Project ID: 1193168

Collection Date: 06/18/19 12:00
Received Date: 06/18/19 16:25
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	5.21		1.00	0.310	mg/L	1		07/01/19 18:55

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:55
Container ID: 1193168010-C

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	2.21		0.100	0.0310	mg/L	1		06/25/19 16:57

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:57
Container ID: 1193168010-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:06
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:06

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:06
Container ID: 1193168010-B

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168011
Lab Project ID: 1193168

Collection Date: 06/18/19 13:42
Received Date: 06/18/19 16:25
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		06/18/19 17:45

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:45
Container ID: 1193168011-A

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168011
Lab Project ID: 1193168

Collection Date: 06/18/19 13:42
Received Date: 06/18/19 16:25
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		07/01/19 18:56

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 18:56
Container ID: 1193168011-C

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.271		0.100	0.0310	mg/L	1		06/25/19 17:02

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:02
Container ID: 1193168011-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:08
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:08

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:08
Container ID: 1193168011-B

Results of **MW16**

Client Sample ID: **MW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168012
Lab Project ID: 1193168

Collection Date: 06/18/19 14:12
Received Date: 06/18/19 16:25
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		06/18/19 17:45

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:45
Container ID: 1193168012-A

Results of **MW16**

Client Sample ID: **MW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168012
Lab Project ID: 1193168

Collection Date: 06/18/19 14:12
Received Date: 06/18/19 16:25
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	0.319	J	1.00	0.310	mg/L	1		07/01/19 19:00

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 19:00
Container ID: 1193168012-C

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.181		0.100	0.0310	mg/L	1		06/25/19 17:04

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:04
Container ID: 1193168012-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:10
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:10

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:10
Container ID: 1193168012-B

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **MW12**

Client Sample ID: **MW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168013
Lab Project ID: 1193168

Collection Date: 06/18/19 14:35
Received Date: 06/18/19 16:25
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		06/18/19 17:45

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:45
Container ID: 1193168013-A

Results of **MW12**

Client Sample ID: **MW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168013
Lab Project ID: 1193168

Collection Date: 06/18/19 14:35
Received Date: 06/18/19 16:25
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		07/01/19 19:01

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 19:01
Container ID: 1193168013-C

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.136		0.100	0.0310	mg/L	1		06/25/19 17:06

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:06
Container ID: 1193168013-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:11
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/19/19 13:11

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:11
Container ID: 1193168013-B

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168014
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
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		06/19/19 16:27

Batch Information

Analytical Batch: BOD6343
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/19/19 16:27
Container ID: 1193168014-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		06/18/19 17:45

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 06/18/19 17:45
Container ID: 1193168014-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	2		1	1	MPN/100m	1		06/18/19 18:15
Total Coliform	727		1	1	MPN/100m	1		06/18/19 18:15

Batch Information

Analytical Batch: BTF17419
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 06/18/19 18:15
Container ID: 1193168014-B

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168014
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
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	1.19		0.990	0.307	mg/L	1		06/21/19 15:05

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 15:05
Container ID: 1193168014-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.358 J		1.00	0.310	mg/L	1		07/01/19 19:02

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/01/19 19:02
Container ID: 1193168014-F

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 07/01/19 10:52
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	0.111		0.100	0.0310	mg/L	1		06/25/19 17:07

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:07
Container ID: 1193168014-F

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
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	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:13
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/19/19 13:13

Print Date: 07/02/2019 10:26:07AM

J flagging is activated

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193168014
Lab Project ID: 1193168

Collection Date: 06/18/19 12:02
Received Date: 06/18/19 16:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/19/19 13:13
Container ID: 1193168014-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0141	J	0.0200	0.00500	mg/L	1		07/02/19 08:29

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/02/19 08:29
Container ID: 1193168014-F

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/01/19 15:29
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1795246 [BOD/6343]
Blank Lab ID: 1513934

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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: BOD6343
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/19/2019 4:27:45PM

Print Date: 07/02/2019 10:26:11AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [BOD6343]
Blank Spike Lab ID: 1513935
Date Analyzed: 06/19/2019 16:27

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	220	111	(84.6-115.4

Batch Information

Analytical Batch: **BOD6343**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 07/02/2019 10:26:12AM

Method Blank

Blank ID: MB for HBN 1795172 [BTF/17417]
Blank Lab ID: 1513708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17417
Analytical Method: SM21 9222D
Instrument:
Analyst: ACF
Analytical Date/Time: 6/18/2019 5:30:00PM

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Method Blank

Blank ID: MB for HBN 1795187 [BTF/17419]
Blank Lab ID: 1513704

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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: BTF17419
Analytical Method: SM21 9223B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/18/2019 6:15:00PM

Method Blank

Blank ID: MB for HBN 1795348 [STS/6333]
Blank Lab ID: 1514423

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/21/2019 3:05:30PM

Print Date: 07/02/2019 10:26:16AM

Duplicate Sample Summary

Original Sample ID: 1193243004
Duplicate Sample ID: 1514424
QC for Samples:

Analysis Date: 06/21/2019 15:05
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	855	835	mg/L	2.40	(< 5)

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/02/2019 10:26:17AM

Duplicate Sample Summary

Original Sample ID: 1193142001
Duplicate Sample ID: 1514427

Analysis Date: 06/21/2019 15:05
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	14.0	14.0	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS6335
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/02/2019 10:26:17AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [STS6335]
Blank Spike Lab ID: 1514425
Date Analyzed: 06/21/2019 15:05

Spike Duplicate ID: LCSD for HBN 1193168 [STS6335]
Spike Duplicate Lab ID: 1514426
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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	23.6	94	25	24.0	96	(75-125)	1.70	(< 5)

Batch Information

Analytical Batch: **STS6335**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1795298 (WFI/2823) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1514225

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.0514J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/19/2019 12:36:57PM

Method Blank

Blank ID: MB for HBN 1795298 (WFI/2823) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1514227

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 4500NO3-F**

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

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/19/2019 1:32:57PM

Method Blank

Blank ID: MB for HBN 1795298 (WFI/2823)
Blank Lab ID: 1514229

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

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

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/19/2019 2:52:18PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WFI2823]
Blank Spike Lab ID: 1514224
Date Analyzed: 06/19/2019 12:35

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	2.48	99	(90-110)
Total Nitrate/Nitrite-N	5	4.99	100	(90-110)

Batch Information

Analytical Batch: **WFI2823**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

Print Date: 07/02/2019 10:26:21AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WFI2823]
Blank Spike Lab ID: 1514226
Date Analyzed: 06/19/2019 13:31

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.45	98	(70-130)
Nitrite-N	2.5	2.39	96	(90-110)
Total Nitrate/Nitrite-N	5	4.84	97	(90-110)

Batch Information

Analytical Batch: **WFI2823**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WFI2823]
Blank Spike Lab ID: 1514228
Date Analyzed: 06/19/2019 14:50

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.42	97	(70-130)
Nitrite-N	2.5	2.33	93	(90-110)
Total Nitrate/Nitrite-N	5	4.75	95	(90-110)

Batch Information

Analytical Batch: **WFI2823**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

Print Date: 07/02/2019 10:26:21AM

Matrix Spike Summary

Original Sample ID: 1193137001
MS Sample ID: 1514197 MS
MSD Sample ID: 1514198 MSD

Analysis Date: 06/19/2019 14:10
Analysis Date: 06/19/2019 14:12
Analysis Date: 06/19/2019 14:13
Matrix: Drinking Water

QC for Samples: 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Nitrate/Nitrite-N	0.200U	5.00	6.25	125 *	5.00	6.18	124 *	90-110	1.10	(< 25)

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/19/2019 2:12:03PM

Print Date: 07/02/2019 10:26:23AM

Matrix Spike Summary

Original Sample ID: 1193168001
MS Sample ID: 1514201 MS
MSD Sample ID: 1514202 MSD

Analysis Date: 06/19/2019 12:42
Analysis Date: 06/19/2019 12:43
Analysis Date: 06/19/2019 12:45
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	0.100U	2.50	2.63	105	2.50	2.63	105	70-130	0.13	(< 25)
Nitrite-N	0.100U	2.50	2.6	104	2.50	2.50	100	90-110	3.80	(< 25)

Batch Information

Analytical Batch: WFI2823
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/19/2019 12:43:57PM

Print Date: 07/02/2019 10:26:23AM

Method Blank

Blank ID: MB for HBN 1795539 [WXX/12886]
Blank Lab ID: 1515248

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0781J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 4:31:00PM

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 6/25/2019 3:45:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WXX12886]
Blank Spike Lab ID: 1515249
Date Analyzed: 06/25/2019 16:32

Spike Duplicate ID: LCSD for HBN 1193168 [WXX12886]
Spike Duplicate Lab ID: 1515250
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	1.15	115	1	1.17	117	(75-125)	1.80	(< 25)

Batch Information

Analytical Batch: **WDA4587**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12886**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2019 15:45**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1193168001
MS Sample ID: 1515251 MS
MSD Sample ID: 1515252 MSD

Analysis Date: 06/25/2019 16:36
Analysis Date: 06/25/2019 16:37
Analysis Date: 06/25/2019 16:42
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	0.0834J	1.00	1.13	104	1.00	1.08	100	75-125	4.40	(< 25)

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 4:37:40PM

Prep Batch: WXX12886
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/25/2019 3:45:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/02/2019 10:26:25AM

Method Blank

Blank ID: MB for HBN 1795734 [WXX/12894]
Blank Lab ID: 1516097

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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: WDA4590
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/1/2019 6:34:42PM

Prep Batch: WXX12894
Prep Method: METHOD
Prep Date/Time: 7/1/2019 10:52:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WXX12894]
Blank Spike Lab ID: 1516098
Date Analyzed: 07/01/2019 18:36

Spike Duplicate ID: LCSD for HBN 1193168 [WXX12894]
Spike Duplicate Lab ID: 1516099
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	4.09	102	4	3.83	96	(75-125)	6.50	(< 25)

Batch Information

Analytical Batch: **WDA4590**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12894**
Prep Method: **METHOD**
Prep Date/Time: **07/01/2019 10:52**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193168001
MS Sample ID: 1516100 MS
MSD Sample ID: 1516101 MSD

Analysis Date: 07/01/2019 18:38
Analysis Date: 07/01/2019 18:39
Analysis Date: 07/01/2019 18:41
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168009, 1193168010, 1193168011, 1193168012, 1193168013, 1193168014

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	4.03	101	4.00	4.02	101	75-125	0.17	(< 25)

Batch Information

Analytical Batch: WDA4590
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/1/2019 6:39:53PM

Prep Batch: WXX12894
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/1/2019 10:52:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/02/2019 10:26:29AM

Method Blank

Blank ID: MB for HBN 1795740 [WXX/12895]
Blank Lab ID: 1516129

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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: WDA4591
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/2/2019 8:16:36AM

Prep Batch: WXX12895
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/1/2019 3:29:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193168 [WXX12895]
Blank Spike Lab ID: 1516130
Date Analyzed: 07/02/2019 08:17

Spike Duplicate ID: LCSD for HBN 1193168 [WXX12895]
Spike Duplicate Lab ID: 1516131
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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	0.198	99	0.2	0.194	97	(75-125)	1.90	(< 25)

Batch Information

Analytical Batch: **WDA4591**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12895**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **07/01/2019 15:29**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193168001
MS Sample ID: 1516132 MS
MSD Sample ID: 1516133 MSD

Analysis Date: 07/02/2019 8:19
Analysis Date: 07/02/2019 8:20
Analysis Date: 07/02/2019 8:21
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193168001, 1193168002, 1193168003, 1193168004, 1193168005, 1193168006, 1193168007, 1193168008, 1193168014

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	0.0152J	0.200	.21	97	0.200	0.215	100	75-125	2.60	(< 25)

Batch Information

Analytical Batch: WDA4591
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/2/2019 8:20:28AM

Prep Batch: WXX12895
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 7/1/2019 3:29:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/02/2019 10:26:33AM

SGS

CH 1193168 D

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

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

Page 1 of 2

Section 1

CLIENT: Stantec

CONTACT: Jake Allwardt PHONE NO: 343-5202

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

REPORTS TO: E-MAIL: jake.allwardt@stantec.com

INVOICE TO: QUOTE #: P.O. #: 20170415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	BOD	TSS	AK	TKN Nitrate/ Nitrite	TKN/Ammonia	Ammonia	REMARKS/ LOC ID
					Preservative		1	1	Na2S2O3	H2SO4	1	H2SO4	
1AF	SW4	6/18/19	1046	Water	6	G	1	1	1	1	1	1	
2AF	SW5		1102		6		1	1	1	1	1	1	
3AF	SW6		1030		6		1	1	1	1	1	1	
4AF	SW7		1010		6		1	1	1	1	1	1	
5AF	SW8		1241		6		1	1	1	1	1	1	
6AF	SW9		1202		6		1	1	1	1	1	1	
7AF	SW10		1145		6		1	1	1	1	1	1	
8AF	SW11		1356		6		1	1	1	1	1	1	
9AC	MW8		1235		3				1		1		
10AC	MW17		600		3				1		1		

Section 5

	Date	Time	Received By:
Relinquished By: (1)	6/18/19	16:25	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	06/18/19	16:25	AMG Alexander Gohn

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Profile #348183

Temp Blank °C: 1: 4.1° ID23
2: 3.0° ID23
or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

SGS

CH 1193168 D

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Section 1

CLIENT:

CONTACT: PHONE NO:

PROJECT NAME: PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

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

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: NaOH	—	H2SO4			H2SO4	HCl			REMARKS/ LOC ID
							FC	Nitrate/Nitrite	TKN/Ammonia	BOD	TSS	TKN/Ammonia	TC Cl2 1x Max			
11 AC	B11	6/18/19	1342	Water	3	G	1	1	1							
12 AC	MW6	↓	1412	↓	3	G	1	1	1							
13 AC	MW12	↓	1435	↓	3	G	1	1	1							
14 AF	DUP1		1402		6	G	1	1		1	1	1	1			

Section 5

	Date	Time	
Relinquished By: (1)	6/18/19	16:25	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date AMG 06/18/19	Time 16:28	Received For Laboratory By: AMG Alexandra Graham

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 1.4-1.0 D23

or Ambient [ ] 3.0-3.0 D23

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

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

e-Sample Receipt Form

SGS Workorder #: **1193168**

1193168

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	HD
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?		
☐ **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 @ 4.1 °C Therm. ID: D23
	Yes	Cooler ID: 2 @ 3.0 °C Therm. ID: D23
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	Yes	
If <0°C, were sample containers ice free?	N/A	
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.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	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
1193168001-A	Na2S2O3 for Chlorine Redu	OK			
1193168001-B	Na2S2O3 for Chlorine Redu	OK			
1193168001-C	No Preservative Required	OK			
1193168001-D	No Preservative Required	OK			
1193168001-E	No Preservative Required	OK			
1193168001-F	H2SO4 to pH < 2	OK			
1193168002-A	Na2S2O3 for Chlorine Redu	OK			
1193168002-B	Na2S2O3 for Chlorine Redu	OK			
1193168002-C	No Preservative Required	OK			
1193168002-D	No Preservative Required	OK			
1193168002-E	No Preservative Required	OK			
1193168002-F	H2SO4 to pH < 2	OK			
1193168003-A	Na2S2O3 for Chlorine Redu	OK			
1193168003-B	Na2S2O3 for Chlorine Redu	OK			
1193168003-C	No Preservative Required	OK			
1193168003-D	No Preservative Required	OK			
1193168003-E	No Preservative Required	OK			
1193168003-F	H2SO4 to pH < 2	OK			
1193168004-A	Na2S2O3 for Chlorine Redu	OK			
1193168004-B	Na2S2O3 for Chlorine Redu	OK			
1193168004-C	No Preservative Required	OK			
1193168004-D	No Preservative Required	OK			
1193168004-E	No Preservative Required	OK			
1193168004-F	H2SO4 to pH < 2	OK			
1193168005-A	Na2S2O3 for Chlorine Redu	OK			
1193168005-B	Na2S2O3 for Chlorine Redu	OK			
1193168005-C	No Preservative Required	OK			
1193168005-D	No Preservative Required	OK			
1193168005-E	No Preservative Required	OK			
1193168005-F	H2SO4 to pH < 2	OK			
1193168006-A	Na2S2O3 for Chlorine Redu	OK			
1193168006-B	Na2S2O3 for Chlorine Redu	OK			
1193168006-C	No Preservative Required	OK			
1193168006-D	No Preservative Required	OK			
1193168006-E	No Preservative Required	OK			
1193168006-F	H2SO4 to pH < 2	OK			
1193168007-A	Na2S2O3 for Chlorine Redu	OK			
1193168007-B	Na2S2O3 for Chlorine Redu	OK			
1193168007-C	No Preservative Required	OK			
1193168007-D	No Preservative Required	OK			
1193168007-E	No Preservative Required	OK			
1193168007-F	H2SO4 to pH < 2	OK			
1193168008-A	Na2S2O3 for Chlorine Redu	OK			
1193168008-B	Na2S2O3 for Chlorine Redu	OK			
1193168008-C	No Preservative Required	OK			
1193168008-D	No Preservative Required	OK			
1193168008-E	No Preservative Required	OK			
1193168008-F	H2SO4 to pH < 2	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1193168009-A	Na2S2O3 for Chlorine Redu	OK			
1193168009-B	No Preservative Required	OK			
1193168009-C	H2SO4 to pH < 2	OK			
1193168010-A	Na2S2O3 for Chlorine Redu	OK			
1193168010-B	No Preservative Required	OK			
1193168010-C	H2SO4 to pH < 2	OK			
1193168011-A	Na2S2O3 for Chlorine Redu	OK			
1193168011-B	No Preservative Required	OK			
1193168011-C	H2SO4 to pH < 2	OK			
1193168012-A	Na2S2O3 for Chlorine Redu	OK			
1193168012-B	No Preservative Required	OK			
1193168012-C	H2SO4 to pH < 2	OK			
1193168013-A	Na2S2O3 for Chlorine Redu	OK			
1193168013-B	No Preservative Required	OK			
1193168013-C	H2SO4 to pH < 2	OK			
1193168014-A	Na2S2O3 for Chlorine Redu	OK			
1193168014-B	No Preservative Required	OK			
1193168014-C	No Preservative Required	OK			
1193168014-D	No Preservative Required	OK			
1193168014-E	No Preservative Required	OK			
1193168014-F	H2SO4 to pH < 2	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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: **1193237**

Client Project: **Wasilla WWTP 204700415**

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: **1193237**
Project Name/Site: **Wasilla WWTP 204700415**
Project Contact: **John Marshall**
NPDES/APDES#: **204700415**

Refer to sample receipt form for information on sample condition.

SW12 (1193237001) PS

9223 -Quant Tray- Sample was also analysed undiluted and showed 1 colony of E. coli present.

1193227002DUP (1514520) 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.

1193237001MS (1514704) MS

4500NO3-F - Nitrate/Nitrite - MS recovery for 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. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry (DW Chemistry (Provisionally Certified as of 6/20/19 for Turbidity by SM 2130B, and Copper by EPA 200.8) & 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
SW12	1193237001	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW13	1193237002	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW14	1193237003	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW15	1193237004	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW16	1193237005	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW17	1193237006	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SW18	1193237007	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
SHAW	1193237008	06/20/2019	06/20/2019	Water (Surface, Eff., Ground)
MW13	1193237009	06/20/2019	06/20/2019	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

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Detectable Results Summary

Client Sample ID: **SW12**
Lab Sample ID: 1193237001

Microbiology Laboratory

Waters Department

Parameter	Result	Units
Fecal Coliform	1.0	col/100mL
Total Coliform	2480	MPN/100mL
Ammonia-N	0.0693J	mg/L
Nitrite-N	0.0674J	mg/L
Total Phosphorus	0.0991	mg/L
Total Suspended Solids	8.89	mg/L

Client Sample ID: **SW13**
Lab Sample ID: 1193237002

Microbiology Laboratory

Waters Department

Parameter	Result	Units
E. Coli	517	MPN/100mL
Fecal Coliform	340	col/100mL
Total Coliform	196	MPN/100mL
Ammonia-N	0.0658J	mg/L
Total Kjeldahl Nitrogen	0.349J	mg/L
Total Phosphorus	0.00820J	mg/L
Total Suspended Solids	3.40	mg/L

Client Sample ID: **SW14**
Lab Sample ID: 1193237003

Metals by ICP/MS

Microbiology Laboratory

Waters Department

Parameter	Result	Units
Arsenic	14.4	ug/L
Barium	28.3	ug/L
E. Coli	11	MPN/100mL
Fecal Coliform	30	col/100mL
Total Coliform	196	MPN/100mL
Ammonia-N	0.0857J	mg/L
Total Phosphorus	0.0818	mg/L
Total Suspended Solids	3.47	mg/L

Client Sample ID: **SW15**
Lab Sample ID: 1193237004

Metals by ICP/MS
Microbiology Laboratory

Waters Department

Parameter	Result	Units
Barium	18.1	ug/L
E. Coli	23	MPN/100mL
Fecal Coliform	13	col/100mL
Total Coliform	2420	MPN/100mL
Ammonia-N	0.154	mg/L
Total Phosphorus	0.0289	mg/L
Total Suspended Solids	1.10	mg/L

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Detectable Results Summary

Client Sample ID: **SW16**
Lab Sample ID: 1193237005

	Parameter	Result	Units
Metals by ICP/MS	Barium	12.5	ug/L
Microbiology Laboratory	E. Coli	3540	MPN/100mL
	Fecal Coliform	260	col/100mL
	Total Coliform	14140	MPN/100mL
Waters Department	Ammonia-N	0.0803J	mg/L
	Total Kjeldahl Nitrogen	0.427J	mg/L
	Total Phosphorus	0.0306	mg/L
	Total Suspended Solids	11.9	mg/L

Client Sample ID: **SW17**
Lab Sample ID: 1193237006

	Parameter	Result	Units
Metals by ICP/MS	Barium	19.8	ug/L
Microbiology Laboratory	E. Coli	172	MPN/100mL
	Fecal Coliform	110	col/100mL
	Total Coliform	1986	MPN/100mL
Waters Department	Ammonia-N	0.119	mg/L
	Nitrate-N	1.50	mg/L
	Total Kjeldahl Nitrogen	0.353J	mg/L
	Total Phosphorus	0.168	mg/L
	Total Suspended Solids	4.30	mg/L

Client Sample ID: **SW18**
Lab Sample ID: 1193237007

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	3.83J	ug/L
	Barium	29.8	ug/L
Microbiology Laboratory	Biochemical Oxygen Demand	6.84	mg/L
	E. Coli	56	MPN/100mL
	Fecal Coliform	120	col/100mL
	Total Coliform	1203	MPN/100mL
Waters Department	Ammonia-N	1.13	mg/L
	Nitrate-N	4.17	mg/L
	Nitrite-N	0.118J	mg/L
	Total Kjeldahl Nitrogen	1.58	mg/L
	Total Phosphorus	1.08	mg/L
	Total Suspended Solids	13.8	mg/L

Client Sample ID: **SHAW**
Lab Sample ID: 1193237008

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	4	MPN/100mL
	Fecal Coliform	5.0	col/100mL
	Total Coliform	194	MPN/100mL
Waters Department	Ammonia-N	0.0848J	mg/L
	Total Kjeldahl Nitrogen	0.364J	mg/L
	Total Phosphorus	0.0368	mg/L
	Total Suspended Solids	0.396J	mg/L

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Detectable Results Summary

Client Sample ID: **MW13**
Lab Sample ID: 1193237009
Waters Department

Parameter	Result	Units
Ammonia-N	0.208	mg/L

Print Date: 07/08/2019 12:18:40PM

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237001
Lab Project ID: 1193237

Collection Date: 06/20/19 10:35
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.0		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10	U	10	10	MPN/100m	10		06/20/19 17:58
Total Coliform	2480		10	10	MPN/100m	10		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237001-B

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237001
Lab Project ID: 1193237

Collection Date: 06/20/19 10:35
Received Date: 06/20/19 16:23
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	8.89		1.01	0.313	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237001-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		07/05/19 17:10

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:10
Container ID: 1193237001-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0693 J		0.100	0.0310	mg/L	1		06/25/19 16:09

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:09
Container ID: 1193237001-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:05
Nitrite-N	0.0674 J		0.200	0.0500	mg/L	2		06/21/19 11:05

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237001
Lab Project ID: 1193237

Collection Date: 06/20/19 10:35
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:05
Container ID: 1193237001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0991		0.0200	0.00500	mg/L	1		07/03/19 16:54

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 16:54
Container ID: 1193237001-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/08/2019 12:18:41PM

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Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237002
Lab Project ID: 1193237

Collection Date: 06/20/19 10:55
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	340		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	517		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	196		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237002-B

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237002
Lab Project ID: 1193237

Collection Date: 06/20/19 10:55
Received Date: 06/20/19 16:23
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	3.40		1.03	0.320	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.349 J		1.00	0.310	mg/L	1		07/05/19 17:12

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:12
Container ID: 1193237002-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0658 J		0.100	0.0310	mg/L	1		06/25/19 16:10

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:10
Container ID: 1193237002-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:10
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:10

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237002
Lab Project ID: 1193237

Collection Date: 06/20/19 10:55
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:10
Container ID: 1193237002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.00820	J	0.0200	0.00500	mg/L	1		07/03/19 16:57

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 16:57
Container ID: 1193237002-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237003
Lab Project ID: 1193237

Collection Date: 06/20/19 11:50
Received Date: 06/20/19 16:23
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	14.4		5.00	1.50	ug/L	5		06/27/19 19:03
Barium	28.3		3.00	0.940	ug/L	5		06/27/19 19:03
Cadmium	1.00 U		2.00	0.620	ug/L	5		06/27/19 19:03
Chromium	2.00 U		4.00	1.30	ug/L	5		06/27/19 19:03
Lead	0.500 U		1.00	0.310	ug/L	5		06/27/19 19:03
Mercury	0.100 U		0.200	0.0620	ug/L	5		06/27/19 19:03
Selenium	10.0 U		20.0	6.20	ug/L	5		06/27/19 19:03
Silver	1.00 U		2.00	0.620	ug/L	5		06/27/19 19:03

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/27/19 19:03
Container ID: 1193237003-G

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 06/26/19 09:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237003
Lab Project ID: 1193237

Collection Date: 06/20/19 11:50
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	30		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	11		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	196		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237003-B

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237003
Lab Project ID: 1193237

Collection Date: 06/20/19 11:50
Received Date: 06/20/19 16:23
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	3.47		0.990	0.307	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237003-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		07/05/19 17:13

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:13
Container ID: 1193237003-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0857 J		0.100	0.0310	mg/L	1		06/25/19 16:12

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:12
Container ID: 1193237003-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:12
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:12

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237003
Lab Project ID: 1193237

Collection Date: 06/20/19 11:50
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:12
Container ID: 1193237003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0818		0.0200	0.00500	mg/L	1		07/03/19 16:58

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 16:58
Container ID: 1193237003-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237004
Lab Project ID: 1193237

Collection Date: 06/20/19 11:30
Received Date: 06/20/19 16:23
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		06/27/19 19:08
Barium	18.1		3.00	0.940	ug/L	5		06/27/19 19:08
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:08
Chromium	2.00	U	4.00	1.30	ug/L	5		06/27/19 19:08
Lead	0.500	U	1.00	0.310	ug/L	5		06/27/19 19:08
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/27/19 19:08
Selenium	10.0	U	20.0	6.20	ug/L	5		06/27/19 19:08
Silver	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:08

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/27/19 19:08
Container ID: 1193237004-G

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 06/26/19 09:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237004
Lab Project ID: 1193237

Collection Date: 06/20/19 11:30
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	13		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	23		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	2420		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237004-B

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237004
Lab Project ID: 1193237

Collection Date: 06/20/19 11:30
Received Date: 06/20/19 16:23
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	1.10		1.00	0.310	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237004-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		07/05/19 17:17

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:17
Container ID: 1193237004-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.154		0.100	0.0310	mg/L	1		06/25/19 16:14

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:14
Container ID: 1193237004-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:14
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:14

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237004
Lab Project ID: 1193237

Collection Date: 06/20/19 11:30
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:14
Container ID: 1193237004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0289		0.0200	0.00500	mg/L	1		07/03/19 16:58

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 16:58
Container ID: 1193237004-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237005
Lab Project ID: 1193237

Collection Date: 06/20/19 11:15
Received Date: 06/20/19 16:23
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		06/27/19 19:13
Barium	12.5		3.00	0.940	ug/L	5		06/27/19 19:13
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:13
Chromium	2.00	U	4.00	1.30	ug/L	5		06/27/19 19:13
Lead	0.500	U	1.00	0.310	ug/L	5		06/27/19 19:13
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/27/19 19:13
Selenium	10.0	U	20.0	6.20	ug/L	5		06/27/19 19:13
Silver	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:13

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/27/19 19:13
Container ID: 1193237005-G

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 06/26/19 09:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237005
Lab Project ID: 1193237

Collection Date: 06/20/19 11:15
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	260		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	3540		10	10	MPN/100m	10		06/20/19 17:58
Total Coliform	14140		10	10	MPN/100m	10		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237005-B

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237005
Lab Project ID: 1193237

Collection Date: 06/20/19 11:15
Received Date: 06/20/19 16:23
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	11.9		1.00	0.310	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237005-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.427 J		1.00	0.310	mg/L	1		07/05/19 17:18

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:18
Container ID: 1193237005-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0803 J		0.100	0.0310	mg/L	1		06/25/19 16:15

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:15
Container ID: 1193237005-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:16
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:16

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237005
Lab Project ID: 1193237

Collection Date: 06/20/19 11:15
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:16
Container ID: 1193237005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0306		0.0200	0.00500	mg/L	1		07/03/19 16:59

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 16:59
Container ID: 1193237005-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237006
Lab Project ID: 1193237

Collection Date: 06/20/19 13:57
Received Date: 06/20/19 16:23
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		06/27/19 19:17
Barium	19.8		3.00	0.940	ug/L	5		06/27/19 19:17
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:17
Chromium	2.00	U	4.00	1.30	ug/L	5		06/27/19 19:17
Lead	0.500	U	1.00	0.310	ug/L	5		06/27/19 19:17
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/27/19 19:17
Selenium	10.0	U	20.0	6.20	ug/L	5		06/27/19 19:17
Silver	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:17

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/27/19 19:17
Container ID: 1193237006-G

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 06/26/19 09:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237006
Lab Project ID: 1193237

Collection Date: 06/20/19 13:57
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	110		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	172		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	1986		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237006-B

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237006
Lab Project ID: 1193237

Collection Date: 06/20/19 13:57
Received Date: 06/20/19 16:23
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	4.30		1.00	0.310	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.353 J		1.00	0.310	mg/L	1		07/05/19 17:19

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:19
Container ID: 1193237006-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.119		0.100	0.0310	mg/L	1		06/25/19 16:17

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:17
Container ID: 1193237006-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	1.50		0.200	0.0500	mg/L	2		06/21/19 11:17
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:17

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237006
Lab Project ID: 1193237

Collection Date: 06/20/19 13:57
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:17
Container ID: 1193237006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.168		0.0200	0.00500	mg/L	1		07/03/19 17:02

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 17:02
Container ID: 1193237006-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237007
Lab Project ID: 1193237

Collection Date: 06/20/19 14:30
Received Date: 06/20/19 16:23
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	3.83	J	5.00	1.50	ug/L	5		06/27/19 19:22
Barium	29.8		3.00	0.940	ug/L	5		06/27/19 19:22
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:22
Chromium	2.00	U	4.00	1.30	ug/L	5		06/27/19 19:22
Lead	0.500	U	1.00	0.310	ug/L	5		06/27/19 19:22
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/27/19 19:22
Selenium	10.0	U	20.0	6.20	ug/L	5		06/27/19 19:22
Silver	1.00	U	2.00	0.620	ug/L	5		06/27/19 19:22

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/27/19 19:22
Container ID: 1193237007-G

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 06/26/19 09:10
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237007
Lab Project ID: 1193237

Collection Date: 06/20/19 14:30
Received Date: 06/20/19 16:23
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	6.84		2.00	2.00	mg/L	1		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237007-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	120		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237007-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	56		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	1203		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237007-B

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237007
Lab Project ID: 1193237

Collection Date: 06/20/19 14:30
Received Date: 06/20/19 16:23
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	13.8		1.00	0.310	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237007-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.58		1.00	0.310	mg/L	1		07/05/19 17:21

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:21
Container ID: 1193237007-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	1.13		0.100	0.0310	mg/L	1		06/25/19 16:22

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:22
Container ID: 1193237007-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	4.17		0.200	0.0500	mg/L	2		06/21/19 11:19
Nitrite-N	0.118	J	0.200	0.0500	mg/L	2		06/21/19 11:19

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237007
Lab Project ID: 1193237

Collection Date: 06/20/19 14:30
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:19
Container ID: 1193237007-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	1.08		0.100	0.0250	mg/L	1		07/03/19 17:24

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 17:24
Container ID: 1193237007-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 25 mL

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237008
Lab Project ID: 1193237

Collection Date: 06/20/19 12:45
Received Date: 06/20/19 16:23
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		06/21/19 13:50

Batch Information

Analytical Batch: BOD6345
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 06/21/19 13:50
Container ID: 1193237008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	5.0		1.00	1.00	col/100mL	1		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		06/20/19 17:58
Total Coliform	194		1	1	MPN/100m	1		06/20/19 17:58

Batch Information

Analytical Batch: BTF17428
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 06/20/19 17:58
Container ID: 1193237008-B

Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237008
Lab Project ID: 1193237

Collection Date: 06/20/19 12:45
Received Date: 06/20/19 16:23
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	0.396	J	0.990	0.307	mg/L	1		06/21/19 17:12

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/21/19 17:12
Container ID: 1193237008-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.364	J	1.00	0.310	mg/L	1		07/05/19 17:22

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:22
Container ID: 1193237008-D

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0848	J	0.100	0.0310	mg/L	1		06/25/19 16:24

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:24
Container ID: 1193237008-D

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100	U	0.200	0.0500	mg/L	2		06/21/19 11:26
Nitrite-N	0.100	U	0.200	0.0500	mg/L	2		06/21/19 11:26

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237008
Lab Project ID: 1193237

Collection Date: 06/20/19 12:45
Received Date: 06/20/19 16:23
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:26
Container ID: 1193237008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0368		0.0200	0.00500	mg/L	1		07/03/19 17:03

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 17:03
Container ID: 1193237008-D

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237009
Lab Project ID: 1193237

Collection Date: 06/20/19 13:30
Received Date: 06/20/19 16:23
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		06/20/19 18:10

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/20/19 18:10
Container ID: 1193237009-A

Print Date: 07/08/2019 12:18:41PM

J flagging is activated

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP 204700415**
Lab Sample ID: 1193237009
Lab Project ID: 1193237

Collection Date: 06/20/19 13:30
Received Date: 06/20/19 16:23
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		07/05/19 17:23

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:23
Container ID: 1193237009-C

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.208		0.100	0.0310	mg/L	1		06/25/19 16:25

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 16:25
Container ID: 1193237009-C

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 06/25/19 14:30
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	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:28
Nitrite-N	0.100 U		0.200	0.0500	mg/L	2		06/21/19 11:28

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 06/21/19 11:28
Container ID: 1193237009-C

Method Blank

Blank ID: MB for HBN 1795376 [BOD/6345]
Blank Lab ID: 1514545

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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: BOD6345
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 6/21/2019 1:50:21PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [BOD6345]
Blank Spike Lab ID: 1514546
Date Analyzed: 06/21/2019 13:50

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	197	100	(84.6-115.4

Batch Information

Analytical Batch: **BOD6345**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 07/08/2019 12:18:46PM

Method Blank

Blank ID: MB for HBN 1795304 [BTF/17428]
Blank Lab ID: 1514240

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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: BTF17428
Analytical Method: SM21 9223B
Instrument:
Analyst: ACF
Analytical Date/Time: 6/20/2019 12:30:00PM

Method Blank

Blank ID: MB for HBN 1795317 [BTF/17430]
Blank Lab ID: 1514288

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17430
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 6/20/2019 6:10:25PM

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Method Blank

Blank ID: MB for HBN 1795486 [MXX/32512]
Blank Lab ID: 1515005

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237003, 1193237004, 1193237005, 1193237006, 1193237007

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	2.19J	4.00	1.30	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

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/27/2019 5:44:10PM

Prep Batch: MXX32512
Prep Method: SW3010A
Prep Date/Time: 6/26/2019 9:10:41AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [MXX32512]
Blank Spike Lab ID: 1515006
Date Analyzed: 06/27/2019 17:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237003, 1193237004, 1193237005, 1193237006, 1193237007

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1030	103	(84-116)
Barium	1000	1030	103	(86-114)
Cadmium	100	101	101	(87-115)
Chromium	400	394	99	(85-116)
Lead	1000	1030	103	(88-115)
Mercury	10	10.2	102	(70-124)
Selenium	1000	1030	103	(80-120)
Silver	100	101	101	(85-116)

Batch Information

Analytical Batch: **MMS10548**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexion P5**
Analyst: **DSH**

Prep Batch: **MXX32512**
Prep Method: **SW3010A**
Prep Date/Time: **06/26/2019 09:10**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1515007
MS Sample ID: 1515008 MS
MSD Sample ID: 1515009 MSD

Analysis Date: 06/27/2019 17:53
Analysis Date: 06/27/2019 17:58
Analysis Date: 06/27/2019 18:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237003, 1193237004, 1193237005, 1193237006, 1193237007

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	1010	101	1000	1020	102	84-116	1.09	(< 20)
Barium	4.65	1000	992	99	1000	987	98	86-114	0.44	(< 20)
Cadmium	1.00U	100	101	101	100	99.9	100	87-115	1.20	(< 20)
Chromium	3.29J	400	391	97	400	395	98	85-116	1.14	(< 20)
Lead	0.500U	1000	1010	101	1000	1020	102	88-115	1.79	(< 20)
Mercury	0.0666J	10.0	9.99	99	10.0	9.94	99	70-124	0.49	(< 20)
Selenium	10.0U	1000	1030	103	1000	1010	101	80-120	1.30	(< 20)
Silver	1.00U	100	102	102	100	100	100	85-116	1.99	(< 20)

Batch Information

Analytical Batch: MMS10548
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/27/2019 5:58:14PM

Prep Batch: MXX32512
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/26/2019 9:10:41AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

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Method Blank

Blank ID: MB for HBN 1795369 [STS/6336]
Blank Lab ID: 1514516

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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: STS6336
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 6/21/2019 5:12:57PM

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Duplicate Sample Summary

Original Sample ID: 1193192001
Duplicate Sample ID: 1514519
QC for Samples:

Analysis Date: 06/21/2019 17:12
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	305	304	mg/L	0.33	(< 5)

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/08/2019 12:18:55PM

Duplicate Sample Summary

Original Sample ID: 1193227002
Duplicate Sample ID: 1514520

Analysis Date: 06/21/2019 17:12
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	5.40	5.80	mg/L	7.10*	(< 5)

Batch Information

Analytical Batch: STS6336
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/08/2019 12:18:55PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [STS6336]
Blank Spike Lab ID: 1514517
Date Analyzed: 06/21/2019 17:12

Spike Duplicate ID: LCSD for HBN 1193237 [STS6336]
Spike Duplicate Lab ID: 1514518
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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	24.3	97	25	24.1	96	(75-125)	0.83	(< 5)

Batch Information

Analytical Batch: **STS6336**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1795419 (WFI/2824) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1514718

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.0532J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/21/2019 11:00:22AM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [WFI2824]
Blank Spike Lab ID: 1514717
Date Analyzed: 06/21/2019 10:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.46	98	(70-130)
Nitrite-N	2.5	2.39	96	(90-110)
Total Nitrate/Nitrite-N	5	4.85	97	(90-110)

Batch Information

Analytical Batch: **WFI2824**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EWW**

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Matrix Spike Summary

Original Sample ID: 1193237001
MS Sample ID: 1514704 MS
MSD Sample ID: 1514705 MSD

Analysis Date: 06/21/2019 11:05
Analysis Date: 06/21/2019 11:07
Analysis Date: 06/21/2019 11:09
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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	0.100U	2.50	2.68	107		2.50	2.51	100	70-130	6.60	(< 25)
Nitrite-N	0.0674J	2.50	2.25	87	*	2.50	2.44	95	90-110	8.10	(< 25)

Batch Information

Analytical Batch: WFI2824
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EWW
Analytical Date/Time: 6/21/2019 11:07:21AM

Print Date: 07/08/2019 12:18:59PM

Method Blank

Blank ID: MB for HBN 1795538 [WXX/12885]
Blank Lab ID: 1515243

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0553J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 3:42:35PM

Prep Batch: WXX12885
Prep Method: METHOD
Prep Date/Time: 6/25/2019 2:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [WXX12885]
Blank Spike Lab ID: 1515244
Date Analyzed: 06/25/2019 15:44

Spike Duplicate ID: LCSD for HBN 1193237 [WXX12885]
Spike Duplicate Lab ID: 1515245
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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	1.10	110	1	1.11	111	(75-125)	0.66	(< 25)

Batch Information

Analytical Batch: **WDA4587**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12885**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2019 14:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1193136002
MS Sample ID: 1515246 MS
MSD Sample ID: 1515247 MSD

Analysis Date: 06/25/2019 15:49
Analysis Date: 06/25/2019 15:50
Analysis Date: 06/25/2019 15:52
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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	0.124	1.00	1.22	110	1.00	1.21	108	75-125	1.20	(< 25)

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 3:50:58PM

Prep Batch: WXX12885
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/25/2019 2:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/08/2019 12:19:02PM

Method Blank

Blank ID: MB for HBN 1795837 [WXX/12898]
Blank Lab ID: 1516533

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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: WDA4593
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/3/2019 4:51:14PM

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/3/2019 2:22:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [WXX12898]
Blank Spike Lab ID: 1516534
Date Analyzed: 07/03/2019 16:52

Spike Duplicate ID: LCSD for HBN 1193237 [WXX12898]
Spike Duplicate Lab ID: 1516535
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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	0.189	95	(75-125)	9.40	(< 25)

Batch Information

Analytical Batch: **WDA4593**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12898**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **07/03/2019 14:22**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193237001
MS Sample ID: 1516536 MS
MSD Sample ID: 1516537 MSD

Analysis Date: 07/03/2019 16:54
Analysis Date: 07/03/2019 16:55
Analysis Date: 07/03/2019 16:56
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008

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	0.0991	0.200	.299	100	0.200	0.304	102	75-125	1.50	(< 25)

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/3/2019 4:55:09PM

Prep Batch: WXX12898
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 7/3/2019 2:22:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/08/2019 12:19:05PM

Method Blank

Blank ID: MB for HBN 1795927 [WXX/12901]
Blank Lab ID: 1517072

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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: WDA4594
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/5/2019 5:01:00PM

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 7/5/2019 9:30:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193237 [WXX12901]
Blank Spike Lab ID: 1517073
Date Analyzed: 07/05/2019 17:02

Spike Duplicate ID: LCSD for HBN 1193237 [WXX12901]
Spike Duplicate Lab ID: 1517074
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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	4.26	107	4	4.22	105	(75-125)	1.10	(< 25)

Batch Information

Analytical Batch: **WDA4594**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12901**
Prep Method: **METHOD**
Prep Date/Time: **07/05/2019 09:30**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193259001
MS Sample ID: 1517075 MS
MSD Sample ID: 1517076 MSD

Analysis Date: 07/05/2019 17:05
Analysis Date: 07/05/2019 17:06
Analysis Date: 07/05/2019 17:08
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193237001, 1193237002, 1193237003, 1193237004, 1193237005, 1193237006, 1193237007, 1193237008, 1193237009

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	4.47	112	4.00	4.54	114	75-125	1.70	(< 25)

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/5/2019 5:06:00PM

Prep Batch: WXX12901
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/5/2019 9:30:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/08/2019 12:19:08PM

SGS

1193237

ORD

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

Page ____ of ____

Section 1

CLIENT: Stantec	
CONTACT: Jake Alward	PHONE #: 343-5202
PROJECT NAME: Wasilla WWTP	PROJECT/ PWSID/ PERMIT#: 2047004 15
REPORTS TO:	E-MAIL:
	Profile #:
INVOICE TO: Stantec	QUOTE #:
	P.O. #:

Section 3 — Preservative

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Analysis* BOD (None)	TSS (None)	Nitrate/Nitrite (None)	Ammonia/TKN/ Tphos (H2SO4)	Fecal Coliform (Na2SO4)	TC Quantitray (1X/10X) (Na2SO4)	RCRA	TKN/Ammonia			REMARKS/LOC ID
1AF	SW12	06/20/2019	10:35	Water			X	X	X	X	X	X					
2AF	SW13		10:55	Water			X	X	X	X	X	X					
3AJ	SW14		11:50				X	X	X	X	X	X	X				
4AJ	SW15		11:30				X	X	X	X	X	X	X				
5AJ	SW16		11:15				X	X	X	X	X	X	X				
6AJ	SW17		13:57				X	X	X	X	X	X	X				
7AJ	SW18		14:30				X	X	X	X	X	X	X				
8AF	SHAW		12:45				X	X	X	X	X	X					
9AC	MW13		13:30						X		X			X			

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Date	Time	Received By:
Relinquished By: (1) Austin Badger	06/20/19	16:23	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	06/20/19	16:23	Received For Laboratory By: AMG

Section 4 — DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 1: 6.1° 023 2: 6.3° 023 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

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

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

e-Sample Receipt Form

SGS Workorder #: **1193237**

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	
DOD: Were samples received in COC corresponding coolers?		
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)?	N/A	Cooler ID: 1 @ 6.1 °C Therm. ID:
	N/A	Cooler ID: 2 @ 6.3 °C Therm. ID:
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	Yes	
If <0°C, were sample containers ice free?		
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.		
***Note: If sample information on containers differs from COC, SGS will default to COC informatic		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	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
1193237001-A	Na2S2O3 for Chlorine Redu	OK			
1193237001-B	Na2S2O3 for Chlorine Redu	OK			
1193237001-C	No Preservative Required	OK			
1193237001-D	H2SO4 to pH < 2	OK			
1193237001-E	No Preservative Required	OK			
1193237001-F	No Preservative Required	OK			
1193237002-A	Na2S2O3 for Chlorine Redu	OK			
1193237002-B	Na2S2O3 for Chlorine Redu	OK			
1193237002-C	No Preservative Required	OK			
1193237002-D	H2SO4 to pH < 2	OK			
1193237002-E	No Preservative Required	OK			
1193237002-F	No Preservative Required	OK			
1193237003-A	Na2S2O3 for Chlorine Redu	OK			
1193237003-B	Na2S2O3 for Chlorine Redu	OK			
1193237003-C	No Preservative Required	OK			
1193237003-D	H2SO4 to pH < 2	OK			
1193237003-E	No Preservative Required	OK			
1193237003-F	No Preservative Required	OK			
1193237003-G	HNO3 to pH < 2	OK			
1193237004-A	Na2S2O3 for Chlorine Redu	OK			
1193237004-B	Na2S2O3 for Chlorine Redu	OK			
1193237004-C	No Preservative Required	OK			
1193237004-D	H2SO4 to pH < 2	OK			
1193237004-E	No Preservative Required	OK			
1193237004-F	No Preservative Required	OK			
1193237004-G	HNO3 to pH < 2	OK			
1193237005-A	Na2S2O3 for Chlorine Redu	OK			
1193237005-B	Na2S2O3 for Chlorine Redu	OK			
1193237005-C	No Preservative Required	OK			
1193237005-D	H2SO4 to pH < 2	OK			
1193237005-E	No Preservative Required	OK			
1193237005-F	No Preservative Required	OK			
1193237005-G	HNO3 to pH < 2	OK			
1193237006-A	Na2S2O3 for Chlorine Redu	OK			
1193237006-B	Na2S2O3 for Chlorine Redu	OK			
1193237006-C	No Preservative Required	OK			
1193237006-D	H2SO4 to pH < 2	OK			
1193237006-E	No Preservative Required	OK			
1193237006-F	No Preservative Required	OK			
1193237006-G	HNO3 to pH < 2	OK			
1193237007-A	Na2S2O3 for Chlorine Redu	OK			
1193237007-B	Na2S2O3 for Chlorine Redu	OK			
1193237007-C	No Preservative Required	OK			
1193237007-D	H2SO4 to pH < 2	OK			
1193237007-E	No Preservative Required	OK			
1193237007-F	No Preservative Required	OK			
1193237007-G	HNO3 to pH < 2	OK			
1193237008-A	Na2S2O3 for Chlorine Redu	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1193237008-B	Na2S2O3 for Chlorine Redu	OK			
1193237008-C	No Preservative Required	OK			
1193237008-D	H2SO4 to pH < 2	OK			
1193237008-E	No Preservative Required	OK			
1193237008-F	No Preservative Required	OK			
1193237009-A	Na2S2O3 for Chlorine Redu	OK			
1193237009-B	No Preservative Required	OK			
1193237009-C	H2SO4 to pH < 2	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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: **1193259**

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: **1193259**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1192939001(1514781MS) (1514782) MS

300.0 - Anions - MS recoveries for Nitrate and Nitrite are outside of QC criteria. Refer to LCS for accuracy requirements.

1192939001(1514781MSD) (1514783) MSD

300.0 - Anions - MSD recoveries for Nitrate and Nitrite are 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.

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <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 (DW Chemistry (Provisionally Certified as of 6/20/19 for Turbidity by SM 2130B, and Copper by EPA 200.8) & 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.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW-14B	1193259001	06/21/2019	06/21/2019	Water (Surface, Eff., Ground)
MW-20	1193259002	06/21/2019	06/21/2019	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic Analysis
SM21 4500-N D	TKN by Phenate (W)
SM21 4500P-B,E	Total Phosphorus (W)

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Detectable Results Summary

Client Sample ID: **MW-14B**
Lab Sample ID: 1193259001
Waters Department

Parameter	Result	Units
Ammonia-N	0.0854J	mg/L
Nitrate-N	0.123J	mg/L
Total Nitrate/Nitrite-N	0.123J	mg/L
Total Phosphorus	0.0463	mg/L

Client Sample ID: **MW-20**
Lab Sample ID: 1193259002
Waters Department

Parameter	Result	Units
Ammonia-N	0.0953J	mg/L
Nitrate-N	0.250	mg/L
Total Nitrate/Nitrite-N	0.250	mg/L

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Results of **MW-14B**

Client Sample ID: **MW-14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259001
Lab Project ID: 1193259

Collection Date: 06/21/19 13:50
Received Date: 06/21/19 15:53
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		06/21/19 17:29

Batch Information

Analytical Batch: BTF17431
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/21/19 17:29
Container ID: 1193259001-A

Results of **MW-14B**

Client Sample ID: **MW-14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259001
Lab Project ID: 1193259

Collection Date: 06/21/19 13:50
Received Date: 06/21/19 15:53
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	0.123	J	0.200	0.0500	mg/L	1		06/21/19 18:01
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		06/21/19 18:01
Total Nitrate/Nitrite-N	0.123	J	0.200	0.0500	mg/L	1		06/21/19 18:01

Batch Information

Analytical Batch: WIC5924
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 06/21/19 18:01
Container ID: 1193259001-B

Prep Batch: WXX12880
Prep Method: METHOD
Prep Date/Time: 06/21/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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		07/05/19 17:05

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:05
Container ID: 1193259001-C

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0854	J	0.100	0.0310	mg/L	1		06/25/19 17:15

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:15
Container ID: 1193259001-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0463		0.0200	0.00500	mg/L	1		07/03/19 17:04

Results of **MW-14B**

Client Sample ID: **MW-14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259001
Lab Project ID: 1193259

Collection Date: 06/21/19 13:50
Received Date: 06/21/19 15:53
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 17:04
Container ID: 1193259001-C

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259002
Lab Project ID: 1193259

Collection Date: 06/21/19 14:21
Received Date: 06/21/19 15:53
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		06/21/19 17:29

Batch Information

Analytical Batch: BTF17431
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 06/21/19 17:29
Container ID: 1193259002-A

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Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259002
Lab Project ID: 1193259

Collection Date: 06/21/19 14:21
Received Date: 06/21/19 15:53
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	0.250		0.200	0.0500	mg/L	1		06/21/19 18:20
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		06/21/19 18:20
Total Nitrate/Nitrite-N	0.250		0.200	0.0500	mg/L	1		06/21/19 18:20

Batch Information

Analytical Batch: WIC5924
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 06/21/19 18:20
Container ID: 1193259002-B

Prep Batch: WXX12880
Prep Method: METHOD
Prep Date/Time: 06/21/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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		07/05/19 17:09

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/05/19 17:09
Container ID: 1193259002-C

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 07/05/19 09:30
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	0.0953 J		0.100	0.0310	mg/L	1		06/25/19 17:17

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/25/19 17:17
Container ID: 1193259002-C

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 06/25/19 15:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0100 U		0.0200	0.00500	mg/L	1		07/03/19 17:05

Print Date: 07/08/2019 12:20:19PM

J flagging is activated

Results of **MW-20**

Client Sample ID: **MW-20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193259002
Lab Project ID: 1193259

Collection Date: 06/21/19 14:21
Received Date: 06/21/19 15:53
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/03/19 17:05
Container ID: 1193259002-C

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/03/19 14:22
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1795373 [BTF/17431]
Blank Lab ID: 1514540

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193259001, 1193259002

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17431
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 6/21/2019 5:29:59PM

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Method Blank

Blank ID: MB for HBN 1795434 [WXX/12880]
Blank Lab ID: 1514779

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193259001, 1193259002

Results by **EPA 300.0**

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

Batch Information

Analytical Batch: WIC5924
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 6/21/2019 12:40:12PM

Prep Batch: WXX12880
Prep Method: METHOD
Prep Date/Time: 6/21/2019 10:30:00AM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1193259 [WXX12880]
Blank Spike Lab ID: 1514780
Date Analyzed: 06/21/2019 12:59

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	4.87	97	(90-110)
Nitrite-N	5	5.06	101	(90-110)
Total Nitrate/Nitrite-N	10	9.93	99	(90-110)

Batch Information

Analytical Batch: **WIC5924**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX12880**
Prep Method: **METHOD**
Prep Date/Time: **06/21/2019 10:30**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1514781
MS Sample ID: 1514782 MS
MSD Sample ID: 1514783 MSD

Analysis Date: 06/21/2019 13:17
Analysis Date: 06/21/2019 13:36
Analysis Date: 06/21/2019 13:55
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

Results by **EPA 300.0**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)						
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Nitrate-N	0.100U	5.00	4.12	82	*	5.00	3.74	75	*	90-110	9.60	(< 15)
Nitrite-N	0.100U	5.00	4.29	86	*	5.00	3.93	79	*	90-110	8.80	(< 15)

Batch Information

Analytical Batch: WIC5924
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 6/21/2019 1:36:51PM

Prep Batch: WXX12880
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 6/21/2019 10:30:00AM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

Print Date: 07/08/2019 12:20:26PM

Method Blank

Blank ID: MB for HBN 1795539 [WXX/12886]
Blank Lab ID: 1515248

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193259001, 1193259002

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0781J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 4:31:00PM

Prep Batch: WXX12886
Prep Method: METHOD
Prep Date/Time: 6/25/2019 3:45:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193259 [WXX12886]
Blank Spike Lab ID: 1515249
Date Analyzed: 06/25/2019 16:32

Spike Duplicate ID: LCSD for HBN 1193259 [WXX12886]
Spike Duplicate Lab ID: 1515250
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	1.15	115	1	1.17	117	(75-125)	1.80	(< 25)

Batch Information

Analytical Batch: **WDA4587**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12886**
Prep Method: **METHOD**
Prep Date/Time: **06/25/2019 15:45**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1193168001
MS Sample ID: 1515251 MS
MSD Sample ID: 1515252 MSD

Analysis Date: 06/25/2019 16:36
Analysis Date: 06/25/2019 16:37
Analysis Date: 06/25/2019 16:42
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	0.0834J	1.00	1.13	104	1.00	1.08	100	75-125	4.40	(< 25)

Batch Information

Analytical Batch: WDA4587
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/25/2019 4:37:40PM

Prep Batch: WXX12886
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 6/25/2019 3:45:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 07/08/2019 12:20:30PM

Method Blank

Blank ID: MB for HBN 1795837 [WXX/12898]
Blank Lab ID: 1516533

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193259001, 1193259002

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: WDA4593
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/3/2019 4:51:14PM

Prep Batch: WXX12898
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/3/2019 2:22:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193259 [WXX12898]
Blank Spike Lab ID: 1516534
Date Analyzed: 07/03/2019 16:52

Spike Duplicate ID: LCSD for HBN 1193259 [WXX12898]
Spike Duplicate Lab ID: 1516535
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	0.189	95	(75-125)	9.40	(< 25)

Batch Information

Analytical Batch: **WDA4593**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12898**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **07/03/2019 14:22**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193237001
MS Sample ID: 1516536 MS
MSD Sample ID: 1516537 MSD

Analysis Date: 07/03/2019 16:54
Analysis Date: 07/03/2019 16:55
Analysis Date: 07/03/2019 16:56
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	0.0991	0.200	.299	100	0.200	0.304	102	75-125	1.50	(< 25)

Batch Information

Analytical Batch: WDA4593
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/3/2019 4:55:09PM

Prep Batch: WXX12898
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 7/3/2019 2:22:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/08/2019 12:20:35PM

Method Blank

Blank ID: MB for HBN 1795927 [WXX/12901]
Blank Lab ID: 1517072

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193259001, 1193259002

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: WDA4594
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/5/2019 5:01:00PM

Prep Batch: WXX12901
Prep Method: METHOD
Prep Date/Time: 7/5/2019 9:30:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193259 [WXX12901]
Blank Spike Lab ID: 1517073
Date Analyzed: 07/05/2019 17:02

Spike Duplicate ID: LCSD for HBN 1193259 [WXX12901]
Spike Duplicate Lab ID: 1517074
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	4.26	107	4	4.22	105	(75-125)	1.10	(< 25)

Batch Information

Analytical Batch: **WDA4594**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12901**
Prep Method: **METHOD**
Prep Date/Time: **07/05/2019 09:30**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1193259001
MS Sample ID: 1517075 MS
MSD Sample ID: 1517076 MSD

Analysis Date: 07/05/2019 17:05
Analysis Date: 07/05/2019 17:06
Analysis Date: 07/05/2019 17:08
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193259001, 1193259002

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	4.47	112	4.00	4.54	114	75-125	1.70	(< 25)

Batch Information

Analytical Batch: WDA4594
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/5/2019 5:06:00PM

Prep Batch: WXX12901
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/5/2019 9:30:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 07/08/2019 12:20:38PM

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CHAIN OF CUSTODY RECORD

1193259

Locations Nationwide
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h Carolina Indiana
t Virgina Kentucky
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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Page 1 of 1

Section 1

CLIENT: Stantec / City of Wasilla
CONTACT: John Marshall PHONE NO: 907-266-1108
PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:
REPORTS TO: E-MAIL: John.Marshall@stantec.com
INVOICE TO: QUOTE #:
P.O. #:

Section 3 — Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	1	H_2SO_4	Na_2SO_4						REMARKS/ LOC ID
							Nitrate/Nitrite	Ammonia/TKN/TP	FC						
1 AC	MW-14B	6/21/19	1350	W	3	G	1	1	1						
2 AC	MW-20	6/21/19	1421	W	3	G	1	1	1						

Section 5

	Date	Time	Received By:
Relinquished By: (1)	6/21/19	1553	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	6/21/19	15:53	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: 5.1 D23
or Ambient [ ]
(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)
INTACT BROKEN (ABSENT)
(See attached Sample Receipt Form)

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

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

e-Sample Receipt Form

SGS Workorder #: **1193259**

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	HD
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?		
**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 @ 5.8 °C Therm. ID: D23
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		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	
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.		
***Note: If sample information on containers differs from COC, SGS will default to COC informatic		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	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
1193259001-A	Na2S2O3 for Chlorine Redu	OK			
1193259001-B	No Preservative Required	OK			
1193259001-C	H2SO4 to pH < 2	OK			
1193259002-A	Na2S2O3 for Chlorine Redu	OK			
1193259002-B	No Preservative Required	OK			
1193259002-C	H2SO4 to pH < 2	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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.