



Laboratory Report of Analysis

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

Report Number: **1193515**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1193515**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW1 (1193515001) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

SW2 (1193515002) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

SW3 (1193515003) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

MW2 (1193515004) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

MW10 (1193515005) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

B3 (1193515006) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

B1 (1193515007) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

MW15 (1193515008) PS

9222D- Fecal coliform-Sample was read-out 1 hour and 44 minutes earlier from the full read-out time.

1193494002DUP (1517101) 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.

MB for HBN 1795787 [BTF/17465] (1516331) MB

9222D- Fecal coliform-QC was read-out 1 hour and 44 minutes earlier from the full read-out time.

POS for HBN 1795787 [BTF/17465 (1516332) POS

9222D- Fecal coliform-QC was read-out 1 hour and 44 minutes earlier from the full read-out time.

*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, indemnification 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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW1	1193515001	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
SW2	1193515002	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
SW3	1193515003	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
MW2	1193515004	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
MW10	1193515005	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
B3	1193515006	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
B1	1193515007	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
MW15	1193515008	07/02/2019	07/02/2019	Water (Surface, Eff., Ground)
SHAW	1193515009	07/01/2019	07/02/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
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

Print Date: 07/17/2019 2:11:57PM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1193515001
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.19	mg/L
Total Coliform	8160	MPN/100mL
Ammonia-N	0.297	mg/L
Total Kjeldahl Nitrogen	1.00	mg/L
Total Phosphorus	0.130	mg/L
Total Suspended Solids	8.93	mg/L

Client Sample ID: **SW2**
 Lab Sample ID: 1193515002
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	2	MPN/100mL
Total Coliform	1986	MPN/100mL
Ammonia-N	0.0395J	mg/L
Total Kjeldahl Nitrogen	0.419J	mg/L
Total Phosphorus	0.00720J	mg/L

Client Sample ID: **SW3**
 Lab Sample ID: 1193515003
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	387	MPN/100mL
Fecal Coliform	1160	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.75	mg/L
Total Phosphorus	0.111	mg/L

Client Sample ID: **MW2**
 Lab Sample ID: 1193515004
Waters Department

Client Sample ID: **MW10**

Lab Sample ID: 1193515005
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0883J	mg/L

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0311J	mg/L
Nitrate-N	0.0946J	mg/L

Client Sample ID: **B3**
 Lab Sample ID: 1193515006
Waters Department

Client Sample ID: **B1**

Lab Sample ID: 1193515007
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.106	mg/L

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.102	mg/L

Client Sample ID: **MW15**
 Lab Sample ID: 1193515008
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.234	mg/L



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515001
Lab Project ID: 1193515

Collection Date: 07/02/19 10:56
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.19	2.00	2.00	mg/L	1		07/03/19 11:49

Batch Information

Analytical Batch: BOD6359
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/03/19 11:49
Container ID: 1193515001-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/02/19 18:06
Container ID: 1193515001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	10 U	10	10	MPN/100r	10		07/02/19 18:28
Total Coliform	8160	10	10	MPN/100r	10		07/02/19 18:28

Batch Information

Analytical Batch: BTF17462
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/02/19 18:28
Container ID: 1193515001-A



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193515001
Lab Project ID: 1193515

Collection Date: 07/02/19 10:56
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 8.93, 1.33, 0.413, mg/L, 1, 07/08/19 14:58

Batch Information

Analytical Batch: STS6360
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/08/19 14:58
Container ID: 1193515001-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 1.00, 1.00, 0.310, mg/L, 1, 07/16/19 15:08

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:08
Container ID: 1193515001-D
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Ammonia-N, 0.297, 0.100, 0.0310, mg/L, 1, 07/09/19 09:19

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:19
Container ID: 1193515001-D
Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows: Nitrate-N (0.100 U), Nitrite-N (0.100 U)

Results of SW1

Client Sample ID: **SW1**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515001
 Lab Project ID: 1193515

Collection Date: 07/02/19 10:56
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/03/19 11:10
 Container ID: 1193515001-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.130	0.0200	0.00500	mg/L	1		07/12/19 11:29

Batch Information

Analytical Batch: WDA4604
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/12/19 11:29
 Container ID: 1193515001-D

Prep Batch: WXX12920
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/12/19 09:37
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515002
Lab Project ID: 1193515

Collection Date: 07/02/19 11:18
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/03/19 11:49

Batch Information

Analytical Batch: BOD6359
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/03/19 11:49
Container ID: 1193515002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/02/19 18:06
Container ID: 1193515002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	2	1	1	MPN/100r	1		07/02/19 18:28
Total Coliform	1986	1	1	MPN/100r	1		07/02/19 18:28

Batch Information

Analytical Batch: BTF17462
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/02/19 18:28
Container ID: 1193515002-A



Results of SW2

Client Sample ID: SW2
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193515002
Lab Project ID: 1193515

Collection Date: 07/02/19 11:18
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 0.485 U, 0.971, 0.301, mg/L, 1, 07/08/19 14:58

Batch Information

Analytical Batch: STS6360
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/08/19 14:58
Container ID: 1193515002-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.419 J, 1.00, 0.310, mg/L, 1, 07/16/19 15:10

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:10
Container ID: 1193515002-D
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Ammonia-N, 0.0395 J, 0.100, 0.0310, mg/L, 1, 07/09/19 09:20

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:20
Container ID: 1193515002-D
Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows: Nitrate-N (0.100 U), Nitrite-N (0.100 U)

Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515002
 Lab Project ID: 1193515

Collection Date: 07/02/19 11:18
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/03/19 11:15
 Container ID: 1193515002-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.00720 J	0.0200	0.00500	mg/L	1		07/12/19 11:30

Batch Information

Analytical Batch: WDA4604
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/12/19 11:30
 Container ID: 1193515002-D

Prep Batch: WXX12920
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/12/19 09:37
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515003
Lab Project ID: 1193515

Collection Date: 07/02/19 11:42
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/03/19 11:49

Batch Information

Analytical Batch: BOD6359
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/03/19 11:49
Container ID: 1193515003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1160	2.00	2.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/02/19 18:06
Container ID: 1193515003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	387	1	1	MPN/100r	1		07/02/19 18:28
Total Coliform	>2420	1	1	MPN/100r	1		07/02/19 18:28

Batch Information

Analytical Batch: BTF17462
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/02/19 18:28
Container ID: 1193515003-A

Print Date: 07/17/2019 2:12:00PM

J flagging is activated



Results of SW3

Client Sample ID: SW3
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193515003
Lab Project ID: 1193515

Collection Date: 07/02/19 11:42
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 0.495 U, 0.990, 0.307, mg/L, 1, 07/08/19 14:58

Batch Information

Analytical Batch: STS6360
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/08/19 14:58
Container ID: 1193515003-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 1.75, 1.00, 0.310, mg/L, 1, 07/16/19 15:11

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:11
Container ID: 1193515003-D
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Ammonia-N, 0.0500 U, 0.100, 0.0310, mg/L, 1, 07/09/19 09:22

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:22
Container ID: 1193515003-D
Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows: Nitrate-N (0.100 U, 0.200, 0.0500, mg/L, 2, 07/03/19 11:16), Nitrite-N (0.100 U, 0.200, 0.0500, mg/L, 2, 07/03/19 11:16)

Results of SW3

Client Sample ID: **SW3**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515003
 Lab Project ID: 1193515

Collection Date: 07/02/19 11:42
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/03/19 11:16
 Container ID: 1193515003-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.111	0.0200	0.00500	mg/L	1		07/12/19 11:31

Batch Information

Analytical Batch: WDA4604
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/12/19 11:31
 Container ID: 1193515003-D

Prep Batch: WXX12920
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/12/19 09:37
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

Results of MW2

Client Sample ID: **MW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515004
 Lab Project ID: 1193515

Collection Date: 07/02/19 13:16
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
 Analytical Method: SM21 9222D
 Analyst: A.L
 Analytical Date/Time: 07/02/19 18:06
 Container ID: 1193515004-A



Results of MW2

Client Sample ID: **MW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515004
Lab Project ID: 1193515

Collection Date: 07/02/19 13:16
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/16/19 15:12

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:12
Container ID: 1193515004-C

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0883 J	0.100	0.0310	mg/L	1		07/09/19 09:24

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:24
Container ID: 1193515004-C

Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:18
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:18

Batch Information

Analytical Batch: WFI2826
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 07/03/19 11:18
Container ID: 1193515004-B

Results of MW10

Client Sample ID: **MW10**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515005
 Lab Project ID: 1193515

Collection Date: 07/02/19 12:37
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
 Analytical Method: SM21 9222D
 Analyst: A.L
 Analytical Date/Time: 07/02/19 18:06
 Container ID: 1193515005-A



Results of MW10

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515005
Lab Project ID: 1193515

Collection Date: 07/02/19 12:37
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/16/19 15:16

Batch Information

Analytical Batch: WDA4605	Prep Batch: WXX12924
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/15/19 09:41
Analytical Date/Time: 07/16/19 15:16	Prep Initial Wt./Vol.: 25 mL
Container ID: 1193515005-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0311 J	0.100	0.0310	mg/L	1		07/09/19 09:29

Batch Information

Analytical Batch: WDA4597	Prep Batch: WXX12904
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/08/19 17:30
Analytical Date/Time: 07/09/19 09:29	Prep Initial Wt./Vol.: 6 mL
Container ID: 1193515005-C	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0946 J	0.200	0.0500	mg/L	2		07/03/19 11:20
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:20

Batch Information

Analytical Batch: WFI2826
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 07/03/19 11:20
Container ID: 1193515005-B

Results of B3

Client Sample ID: **B3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515006
Lab Project ID: 1193515

Collection Date: 07/02/19 13:45
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/02/19 18:06
Container ID: 1193515006-A



Results of B3

Client Sample ID: **B3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515006
Lab Project ID: 1193515

Collection Date: 07/02/19 13:45
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/16/19 15:20

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:20
Container ID: 1193515006-C

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.106	0.100	0.0310	mg/L	1		07/09/19 09:34

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:34
Container ID: 1193515006-C

Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:22
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:22

Batch Information

Analytical Batch: WFI2826
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 07/03/19 11:22
Container ID: 1193515006-B

Results of B1

Client Sample ID: **B1**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515007
 Lab Project ID: 1193515

Collection Date: 07/02/19 14:30
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
 Analytical Method: SM21 9222D
 Analyst: A.L
 Analytical Date/Time: 07/02/19 18:06
 Container ID: 1193515007-A



Results of B1

Client Sample ID: **B1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515007
Lab Project ID: 1193515

Collection Date: 07/02/19 14:30
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/16/19 15:21

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:21
Container ID: 1193515007-C

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.102	0.100	0.0310	mg/L	1		07/09/19 09:36

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/09/19 09:36
Container ID: 1193515007-C

Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 07/08/19 17:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:23
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:23

Batch Information

Analytical Batch: WFI2826
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 07/03/19 11:23
Container ID: 1193515007-B

Results of MW15

Client Sample ID: **MW15**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515008
 Lab Project ID: 1193515

Collection Date: 07/02/19 14:04
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/02/19 18:06

Batch Information

Analytical Batch: BTF17465
 Analytical Method: SM21 9222D
 Analyst: A.L
 Analytical Date/Time: 07/02/19 18:06
 Container ID: 1193515008-A



Results of MW15

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193515008
Lab Project ID: 1193515

Collection Date: 07/02/19 14:04
Received Date: 07/02/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/16/19 15:23

Batch Information

Analytical Batch: WDA4605	Prep Batch: WXX12924
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/15/19 09:41
Analytical Date/Time: 07/16/19 15:23	Prep Initial Wt./Vol.: 25 mL
Container ID: 1193515008-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.234	0.100	0.0310	mg/L	1		07/09/19 09:37

Batch Information

Analytical Batch: WDA4597	Prep Batch: WXX12904
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/08/19 17:30
Analytical Date/Time: 07/09/19 09:37	Prep Initial Wt./Vol.: 6 mL
Container ID: 1193515008-C	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:31
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:31

Batch Information

Analytical Batch: WFI2826
Analytical Method: SM21 4500NO3-F
Analyst: EWW
Analytical Date/Time: 07/03/19 11:31
Container ID: 1193515008-B

Results of SHAW

Client Sample ID: **SHAW**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193515009
 Lab Project ID: 1193515

Collection Date: 07/01/19 13:30
 Received Date: 07/02/19 16:17
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:32
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/03/19 11:32

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/03/19 11:32
 Container ID: 1193515009-A

Method Blank

Blank ID: MB for HBN 1795841 [BOD/6359]

Blank Lab ID: 1516565

QC for Samples:

1193515001, 1193515002, 1193515003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6359

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/3/2019 11:49:16AM

Print Date: 07/17/2019 2:12:03PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [BOD6359]

Blank Spike Lab ID: 1516566

Date Analyzed: 07/03/2019 11:49

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	188	95	(84.6-115.4

Batch Information

Analytical Batch: **BOD6359**

Analytical Method: **SM21 5210B**

Instrument:

Analyst: **A.L**

Print Date: 07/17/2019 2:12:04PM

Method Blank

Blank ID: MB for HBN 1795784 [BTF/17462]

Blank Lab ID: 1516323

QC for Samples:

1193515001, 1193515002, 1193515003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 9223B

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

Batch Information

Analytical Batch: BTF17462

Analytical Method: SM21 9223B

Instrument:

Analyst: VDL

Analytical Date/Time: 7/2/2019 6:28:27PM

Print Date: 07/17/2019 2:12:06PM



Method Blank

Blank ID: MB for HBN 1795787 [BTF/17465]
Blank Lab ID: 1516331

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17465
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 7/2/2019 6:06:51PM

Print Date: 07/17/2019 2:12:08PM



Method Blank

Blank ID: MB for HBN 1795930 [STS/6360]
Blank Lab ID: 1517098

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193515001, 1193515002, 1193515003

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6360
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 7/8/2019 2:58:39PM

Print Date: 07/17/2019 2:12:11PM

Duplicate Sample Summary

Original Sample ID: 1193494002

Duplicate Sample ID: 1517101

QC for Samples:

1193515001, 1193515002, 1193515003

Analysis Date: 07/08/2019 14:58

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	18.5	17.5	mg/L	5.60*	(< 5)

Batch Information

Analytical Batch: STS6360

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/17/2019 2:12:11PM

Duplicate Sample Summary

Original Sample ID: 1517097
Duplicate Sample ID: 1517102

Analysis Date: 07/08/2019 14:58
Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193515001, 1193515002, 1193515003

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	3740	3660	mg/L	2.20	(< 5)

Batch Information

Analytical Batch: STS6360
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 07/17/2019 2:12:11PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [STS6360]
 Blank Spike Lab ID: 1517099
 Date Analyzed: 07/08/2019 14:58

Spike Duplicate ID: LCSD for HBN 1193515 [STS6360]
 Spike Duplicate Lab ID: 1517100
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	23.0	92	25	23.9	96	(75-125)	3.80	(< 5)

Batch Information

Analytical Batch: **STS6360**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Print Date: 07/17/2019 2:12:13PM

Method Blank

Blank ID: MB for HBN 1795882 (WFI/2826)

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1516830

QC for Samples:

1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2826

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EWW

Analytical Date/Time: 7/3/2019 11:04:44AM

Print Date: 07/17/2019 2:12:14PM

Method Blank

Blank ID: MB for HBN 1795882 (WFI/2826)

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1516843

QC for Samples:

1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2826

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EWW

Analytical Date/Time: 7/3/2019 11:50:15AM

Print Date: 07/17/2019 2:12:14PM

Method Blank

Blank ID: MB for HBN 1795882 (WFI/2826)

Blank Lab ID: 1516847

QC for Samples:

Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2826

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EWW

Analytical Date/Time: 7/3/2019 12:35:45PM

Print Date: 07/17/2019 2:12:14PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WFI2826]

Blank Spike Lab ID: 1516829

Date Analyzed: 07/03/2019 11:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	1.25	1.30	104	(70-130)
Nitrite-N	1.25	1.28	102	(90-110)
Total Nitrate/Nitrite-N	2.5	2.57	103	(90-110)

Batch Information

Analytical Batch: **WFI2826**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Astoria segmented flow**

Analyst: **EWV**

Print Date: 07/17/2019 2:12:16PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WFI2826]

Blank Spike Lab ID: 1516842

Date Analyzed: 07/03/2019 11:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.49	100	(70-130)
Nitrite-N	2.5	2.52	101	(90-110)
Total Nitrate/Nitrite-N	5	5.00	100	(90-110)

Batch Information

Analytical Batch: **WFI2826**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Astoria segmented flow**

Analyst: **EWV**

Print Date: 07/17/2019 2:12:16PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WFI2826]
 Blank Spike Lab ID: 1516844
 Date Analyzed: 07/03/2019 12:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.71	108	(70-130)
Nitrite-N	2.5	2.62	105	(90-110)
Total Nitrate/Nitrite-N	5	5.32	106	(90-110)

Batch Information

Analytical Batch: **WFI2826**
 Analytical Method: **SM21 4500NO3-F**
 Instrument: **Astoria segmented flow**
 Analyst: **EWV**

Print Date: 07/17/2019 2:12:16PM

Matrix Spike Summary

Original Sample ID: 1193515001
 MS Sample ID: 1516768 MS
 MSD Sample ID: 1516769 MSD

Analysis Date: 07/03/2019 11:10
 Analysis Date: 07/03/2019 11:11
 Analysis Date: 07/03/2019 11:13
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	2.50	2.59	104	2.50	2.61	104	70-130	0.70	(< 25)
Nitrite-N	0.100U	2.50	2.58	103	2.50	2.61	104	90-110	1.40	(< 25)

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: EWW
 Analytical Date/Time: 7/3/2019 11:11:45AM

Print Date: 07/17/2019 2:12:17PM

Matrix Spike Summary

Original Sample ID: 1193351003
 MS Sample ID: 1516770 MS
 MSD Sample ID: 1516771 MSD

Analysis Date: 07/03/2019 11:58
 Analysis Date: 07/03/2019 12:00
 Analysis Date: 07/03/2019 12:02
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008, 1193515009

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.624	5.00	6.11	110	5.00	6.00	107	90-110	1.80	(< 25)

Batch Information

Analytical Batch: WFI2826
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: EWW
 Analytical Date/Time: 7/3/2019 12:00:45PM

Print Date: 07/17/2019 2:12:17PM

Method Blank

Blank ID: MB for HBN 1795986 [WXX/12904]
Blank Lab ID: 1517334

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4597
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/9/2019 9:09:15AM

Prep Batch: WXX12904
Prep Method: METHOD
Prep Date/Time: 7/8/2019 5:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 07/17/2019 2:12:17PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WXX12904]
 Blank Spike Lab ID: 1517335
 Date Analyzed: 07/09/2019 09:10

Spike Duplicate ID: LCSD for HBN 1193515 [WXX12904]
 Spike Duplicate Lab ID: 1517336
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.975	98	1	0.961	96	(75-125)	1.40	(< 25)

Batch Information

Analytical Batch: **WDA4597**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12904**
 Prep Method: **METHOD**
 Prep Date/Time: **07/08/2019 17:30**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Matrix Spike Summary

Original Sample ID: 1193515005
 MS Sample ID: 1517337 MS
 MSD Sample ID: 1517338 MSD

Analysis Date: 07/09/2019 9:29
 Analysis Date: 07/09/2019 9:30
 Analysis Date: 07/09/2019 9:32
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.0311J	1.00	.905	87	1.00	0.869	84	75-125	4.20	(< 25)

Batch Information

Analytical Batch: WDA4597
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/9/2019 9:30:56AM

Prep Batch: WXX12904
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/8/2019 5:30:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Method Blank

Blank ID: MB for HBN 1796288 [WXX/12920]
Blank Lab ID: 1518581

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193515001, 1193515002, 1193515003

Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.00800J	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4604
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/12/2019 11:05:53AM

Prep Batch: WXX12920
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/12/2019 9:37:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/17/2019 2:12:20PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WXX12920]
 Blank Spike Lab ID: 1518582
 Date Analyzed: 07/12/2019 11:06

Spike Duplicate ID: LCSD for HBN 1193515 [WXX12920]
 Spike Duplicate Lab ID: 1518583
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.211	106	0.2	0.198	99	(75-125)	6.80	(< 25)

Batch Information

Analytical Batch: WDA4604
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM

Prep Batch: WXX12920
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/12/2019 09:37
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1199451001
 MS Sample ID: 1518584 MS
 MSD Sample ID: 1518585 MSD

Analysis Date: 07/12/2019 11:13
 Analysis Date: 07/12/2019 11:14
 Analysis Date: 07/12/2019 11:17
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.0100U	0.200	.199	99	0.200	0.202	101	75-125	1.50	(< 25)

Batch Information

Analytical Batch: WDA4604
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/12/2019 11:14:44AM

Prep Batch: WXX12920
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/12/2019 9:37:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 07/17/2019 2:12:22PM

Method Blank

Blank ID: MB for HBN 1796409 [WXX/12924]
Blank Lab ID: 1519126

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/16/2019 3:04:58PM

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 7/15/2019 9:41:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/17/2019 2:12:23PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193515 [WXX12924]
 Blank Spike Lab ID: 1519127
 Date Analyzed: 07/16/2019 15:06

Spike Duplicate ID: LCSD for HBN 1193515 [WXX12924]
 Spike Duplicate Lab ID: 1519128
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	4.11	103	4	4.06	101	(75-125)	1.30	(< 25)

Batch Information

Analytical Batch: **WDA4605**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12924**
 Prep Method: **METHOD**
 Prep Date/Time: **07/15/2019 09:41**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 07/17/2019 2:12:24PM

Matrix Spike Summary

Original Sample ID: 1193515004
 MS Sample ID: 1519129 MS
 MSD Sample ID: 1519130 MSD

Analysis Date: 07/16/2019 15:12
 Analysis Date: 07/16/2019 15:14
 Analysis Date: 07/16/2019 15:15
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193515001, 1193515002, 1193515003, 1193515004, 1193515005, 1193515006, 1193515007, 1193515008

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.500U	4.00	4.18	105	4.00	4.37	109	75-125	4.50	(< 25)

Batch Information

Analytical Batch: WDA4605
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/16/2019 3:14:06PM

Prep Batch: WXX12924
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 7/15/2019 9:41:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 07/17/2019 2:12:26PM



SGS North America Inc. CHAIN OF CUSTODY RECOR

1193515



Locations Nationwide

- Alaska, Maryland, New Jersey, New York, North Carolina, Indiana, West Virginia, Kentucky

www.us.sgs.com

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

Page 1 of 1

Section 1: CLIENT: Stantec, CONTACT: Jake Alward, PHONE NO: 343-5202, PROJECT NAME: Wosilla WWTP, REPORTS TO: jake.alward@stantec.com, INVOICE TO: QUOTE #: 201700415, P.O. #: 201700415

Section 2 & 3: Table with columns for RESERVED for lab use, SAMPLE IDENTIFICATION, DATE, TIME, MATRIX/MATRIX CODE, CONCENTRATIONS, Type (C=COMP, G=GRAB, etc.), and REMARKS/LOC ID. Includes handwritten entries for SW1, SW2, SW3, MW2, MW10, B3, B1, MW15, and Snow.

Section 2: Table with columns for RESERVED for lab use, SAMPLE IDENTIFICATION, DATE, TIME, MATRIX/MATRIX CODE, CONCENTRATIONS, Type (C=COMP, G=GRAB, etc.), and REMARKS/LOC ID. Includes handwritten entries for SW1, SW2, SW3, MW2, MW10, B3, B1, MW15, and Snow.

Section 4 & 5: Relinquished By (1) [Signature], Date 7/2/19, Time 16:17, Received By: [Signature]. Relinquished By (2), (3), (4) with dates and times.

Section 4: DOD Project? Yes No, Data Deliverable Requirements, Cooler ID, Requested Turnaround Time and/or Special Instructions, Temp Blank °C: 6.1 D30, Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

AD



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1193515001-A	Na2S2O3 for Chlorine Redu	OK			
1193515001-B	Na2S2O3 for Chlorine Redu	OK			
1193515001-C	No Preservative Required	OK			
1193515001-D	No Preservative Required	OK			
1193515001-E	No Preservative Required	OK			
1193515001-F	No Preservative Required	OK			
1193515002-A	Na2S2O3 for Chlorine Redu	OK			
1193515002-B	Na2S2O3 for Chlorine Redu	OK			
1193515002-C	No Preservative Required	OK			
1193515002-D	H2SO4 to pH < 2	OK			
1193515002-E	No Preservative Required	OK			
1193515002-F	No Preservative Required	OK			
1193515003-A	Na2S2O3 for Chlorine Redu	OK			
1193515003-B	Na2S2O3 for Chlorine Redu	OK			
1193515003-C	No Preservative Required	OK			
1193515003-D	H2SO4 to pH < 2	OK			
1193515003-E	No Preservative Required	OK			
1193515003-F	No Preservative Required	OK			
1193515004-A	Na2S2O3 for Chlorine Redu	OK			
1193515004-B	No Preservative Required	OK			
1193515004-C	H2SO4 to pH < 2	OK			
1193515005-A	Na2S2O3 for Chlorine Redu	OK			
1193515005-B	No Preservative Required	OK			
1193515005-C	H2SO4 to pH < 2	OK			
1193515006-A	Na2S2O3 for Chlorine Redu	OK			
1193515006-B	No Preservative Required	OK			
1193515006-C	H2SO4 to pH < 2	OK			
1193515007-A	Na2S2O3 for Chlorine Redu	OK			
1193515007-B	No Preservative Required	OK			
1193515007-C	H2SO4 to pH < 2	OK			
1193515008-A	Na2S2O3 for Chlorine Redu	OK			
1193515008-B	No Preservative Required	OK			
1193515008-C	H2SO4 to pH < 2	OK			
1193515009-A	No Preservative Required	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM - The container was received damaged.

FR - The container was received frozen and not usable for Bacteria or BOD analyses.

IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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

Laboratory Report of Analysis

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

Report Number: **1193743**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1193743**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW1 (1193743001) PS

9223 – Quanti-Tray - Sample was also analyzed undiluted and showed 2 colonies of E.coli present.

SW3 (1193743003) PS

9223 – Quanti-Tray - Sample was also analyzed undiluted and showed 5 colonies of E.coli present.

1193743005DUP (1519088) DUP

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

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

Print Date: 07/25/2019 10:24:17AM

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, indemnification 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). SGS is only certified for the analytes listed on our Drinking Water Certification, and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW1	1193743001	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW2	1193743002	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW3	1193743003	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW4	1193743004	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW5	1193743005	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW6	1193743006	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SW7	1193743007	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
SHAW	1193743008	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)
DUP	1193743009	07/11/2019	07/11/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic 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

Print Date: 07/25/2019 10:24:20AM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1193743001
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.83	mg/L
Total Coliform	14140	MPN/100mL
Ammonia-N	0.320	mg/L
Total Kjeldahl Nitrogen	1.13	mg/L
Total Phosphorus	0.225	mg/L
Total Suspended Solids	83.0	mg/L

Client Sample ID: **SW2**
 Lab Sample ID: 1193743002
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.16	mg/L
Total Coliform	6130	MPN/100mL
Ammonia-N	0.0614J	mg/L
Total Kjeldahl Nitrogen	0.642J	mg/L
Total Phosphorus	0.0122J	mg/L
Total Suspended Solids	10.6	mg/L

Client Sample ID: **SW3**
 Lab Sample ID: 1193743003
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	2.0	col/100mL
Total Coliform	5980	MPN/100mL
Ammonia-N	0.0973J	mg/L
Nitrate-N	2.40	mg/L
Nitrite-N	0.123J	mg/L
Total Kjeldahl Nitrogen	1.41	mg/L
Total Nitrate/Nitrite-N	2.53	mg/L
Total Phosphorus	0.00650J	mg/L
Total Suspended Solids	59.6	mg/L

Client Sample ID: **SW4**
 Lab Sample ID: 1193743004
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.77	mg/L
E. Coli	1986	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0680J	mg/L
Total Kjeldahl Nitrogen	1.42	mg/L
Total Phosphorus	0.0574	mg/L
Total Suspended Solids	86.4	mg/L

Detectable Results Summary

Client Sample ID: **SW5**
 Lab Sample ID: 1193743005
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.83	mg/L
E. Coli	1	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0790J	mg/L
Total Kjeldahl Nitrogen	0.994J	mg/L
Total Phosphorus	0.154	mg/L
Total Suspended Solids	321	mg/L

Client Sample ID: **SW6**
 Lab Sample ID: 1193743006
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.72	mg/L
E. Coli	1203	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0887J	mg/L
Total Kjeldahl Nitrogen	0.825J	mg/L
Total Phosphorus	0.0837	mg/L
Total Suspended Solids	155	mg/L

Client Sample ID: **SW7**
 Lab Sample ID: 1193743007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.17	mg/L
E. Coli	249	MPN/100mL
Fecal Coliform	101	col/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0579J	mg/L
Total Kjeldahl Nitrogen	2.24	mg/L
Total Phosphorus	0.0597	mg/L
Total Suspended Solids	38.6	mg/L

Client Sample ID: **SHAW**
 Lab Sample ID: 1193743008
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	23	MPN/100mL
Fecal Coliform	13	col/100mL
Total Coliform	921	MPN/100mL
Ammonia-N	0.0908J	mg/L
Total Kjeldahl Nitrogen	0.413J	mg/L
Total Phosphorus	0.0413	mg/L
Total Suspended Solids	17.9	mg/L

Detectable Results Summary

Client Sample ID: **DUP**
 Lab Sample ID: 1193743009
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	23	MPN/100mL
Fecal Coliform	20	col/100mL
Total Coliform	1203	MPN/100mL
Ammonia-N	0.102	mg/L
Total Kjeldahl Nitrogen	0.369J	mg/L
Total Phosphorus	0.0396	mg/L
Total Suspended Solids	6.73	mg/L



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743001
Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.83	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743001-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	10 U	10	10	MPN/100r	10		07/11/19 17:32
Total Coliform	14140	10	10	MPN/100r	10		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743001-B

Print Date: 07/25/2019 10:24:22AM

J flagging is activated



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193743001
Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 18:12
Container ID: 1193743001-E
Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743001-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:27
Container ID: 1193743001-F
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW1

Client Sample ID: **SW1**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743001
 Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:06
 Container ID: 1193743001-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.225	0.0200	0.00500	mg/L	1		07/17/19 13:54

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 13:54
 Container ID: 1193743001-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743002
Lab Project ID: 1193743

Collection Date: 07/11/19 10:57
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.16	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743002-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	10 U	10	10	MPN/100r	10		07/11/19 17:32
Total Coliform	6130	10	10	MPN/100r	10		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743002-B



Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743002
 Lab Project ID: 1193743

Collection Date: 07/11/19 10:57
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 18:31
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 18:31
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 18:31

Batch Information

Analytical Batch: WIC5934
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/11/19 18:31
 Container ID: 1193743002-E

Prep Batch: WXX12917
 Prep Method: METHOD
 Prep Date/Time: 07/11/19 17:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	10.6	1.01	0.313	mg/L	1		07/16/19 17:24

Batch Information

Analytical Batch: STS6378
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/16/19 17:24
 Container ID: 1193743002-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.642 J	1.00	0.310	mg/L	1		07/16/19 15:28

Batch Information

Analytical Batch: WDA4605
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 07/16/19 15:28
 Container ID: 1193743002-F

Prep Batch: WXX12924
 Prep Method: METHOD
 Prep Date/Time: 07/15/19 09:41
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0614 J	0.100	0.0310	mg/L	1		07/18/19 18:07

Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743002
 Lab Project ID: 1193743

Collection Date: 07/11/19 10:57
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:07
 Container ID: 1193743002-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0122 J	0.0200	0.00500	mg/L	1		07/17/19 13:55

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 13:55
 Container ID: 1193743002-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743003
Lab Project ID: 1193743

Collection Date: 07/11/19 11:11
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743003-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	2.0	2.00	2.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20 U	20	20	MPN/100r	20		07/11/19 17:32
Total Coliform	5980	20	20	MPN/100r	20		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743003-B



Results of SW3

Client Sample ID: **SW3**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743003
 Lab Project ID: 1193743

Collection Date: 07/11/19 11:11
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	2.40	0.200	0.0500	mg/L	1		07/11/19 18:50
Nitrite-N	0.123 J	0.200	0.0500	mg/L	1		07/11/19 18:50
Total Nitrate/Nitrite-N	2.53	0.200	0.0500	mg/L	1		07/11/19 18:50

Batch Information

Analytical Batch: WIC5934
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/11/19 18:50
 Container ID: 1193743003-E

Prep Batch: WXX12917
 Prep Method: METHOD
 Prep Date/Time: 07/11/19 17:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	59.6	1.02	0.316	mg/L	1		07/16/19 17:24

Batch Information

Analytical Batch: STS6378
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/16/19 17:24
 Container ID: 1193743003-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.41	1.00	0.310	mg/L	1		07/16/19 15:29

Batch Information

Analytical Batch: WDA4605
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 07/16/19 15:29
 Container ID: 1193743003-F

Prep Batch: WXX12924
 Prep Method: METHOD
 Prep Date/Time: 07/15/19 09:41
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0973 J	0.100	0.0310	mg/L	1		07/18/19 18:09

Results of SW3

Client Sample ID: **SW3**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743003
 Lab Project ID: 1193743

Collection Date: 07/11/19 11:11
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:09
 Container ID: 1193743003-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.00650 J	0.0200	0.00500	mg/L	1		07/17/19 13:57

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 13:57
 Container ID: 1193743003-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743004
Lab Project ID: 1193743

Collection Date: 07/11/19 12:30
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.77	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743004-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1986	1	1	MPN/100r 1			07/11/19 17:32
Total Coliform	>2420	1	1	MPN/100r 1			07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743004-B



Results of SW4

Client Sample ID: SW4
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193743004
Lab Project ID: 1193743

Collection Date: 07/11/19 12:30
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 19:09
Container ID: 1193743004-E
Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743004-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:31
Container ID: 1193743004-F
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW4

Client Sample ID: **SW4**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743004
 Lab Project ID: 1193743

Collection Date: 07/11/19 12:30
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:11
 Container ID: 1193743004-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0574	0.0200	0.00500	mg/L	1		07/17/19 13:58

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 13:58
 Container ID: 1193743004-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 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: 1193743005
Lab Project ID: 1193743

Collection Date: 07/11/19 12:40
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.83	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743005-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1	1	1	MPN/100r	1		07/11/19 17:32
Total Coliform	>2420	1	1	MPN/100r	1		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743005-B



Results of SW5

Client Sample ID: SW5
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193743005
Lab Project ID: 1193743

Collection Date: 07/11/19 12:40
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 20:06
Container ID: 1193743005-E
Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743005-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:32
Container ID: 1193743005-F
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743005
Lab Project ID: 1193743

Collection Date: 07/11/19 12:40
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4608
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/18/19 18:12
Container ID: 1193743005-F

Prep Batch: WXX12928
Prep Method: METHOD
Prep Date/Time: 07/18/19 16:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.154	0.0200	0.00500	mg/L	1		07/17/19 13:59

Batch Information

Analytical Batch: WDA4606
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/17/19 13:59
Container ID: 1193743005-F

Prep Batch: WXX12926
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/17/19 11:36
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743006
Lab Project ID: 1193743

Collection Date: 07/11/19 12:18
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.72	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743006-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1203	1	1	MPN/100r 1			07/11/19 17:32
Total Coliform	>2420	1	1	MPN/100r 1			07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743006-B



Results of SW6

Client Sample ID: SW6
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193743006
Lab Project ID: 1193743

Collection Date: 07/11/19 12:18
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 20:26
Container ID: 1193743006-E
Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743006-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:36
Container ID: 1193743006-F
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743006
Lab Project ID: 1193743

Collection Date: 07/11/19 12:18
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4608
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/18/19 18:14
Container ID: 1193743006-F

Prep Batch: WXX12928
Prep Method: METHOD
Prep Date/Time: 07/18/19 16:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0837	0.0200	0.00500	mg/L	1		07/17/19 14:00

Batch Information

Analytical Batch: WDA4606
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/17/19 14:00
Container ID: 1193743006-F

Prep Batch: WXX12926
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/17/19 11:36
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW7

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743007
Lab Project ID: 1193743

Collection Date: 07/11/19 12:05
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	7.17	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743007-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	101	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743007-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	249	1	1	MPN/100r	1		07/11/19 17:32
Total Coliform	>2420	1	1	MPN/100r	1		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743007-B



Results of SW7

Client Sample ID: SW7
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193743007
Lab Project ID: 1193743

Collection Date: 07/11/19 12:05
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 20:44
Container ID: 1193743007-E
Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743007-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:37
Container ID: 1193743007-F
Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW7

Client Sample ID: **SW7**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743007
 Lab Project ID: 1193743

Collection Date: 07/11/19 12:05
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:16
 Container ID: 1193743007-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0597	0.0200	0.00500	mg/L	1		07/17/19 14:00

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 14:00
 Container ID: 1193743007-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SHAW

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743008
Lab Project ID: 1193743

Collection Date: 07/11/19 13:37
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743008-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	13	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743008-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	23	1	1	MPN/100r	1		07/11/19 17:32
Total Coliform	921	1	1	MPN/100r	1		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743008-B



Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743008
Lab Project ID: 1193743

Collection Date: 07/11/19 13:37
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:03
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:03
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:03

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/11/19 21:03
Container ID: 1193743008-E

Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 07/11/19 17:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	17.9	1.04	0.323	mg/L	1		07/16/19 17:24

Batch Information

Analytical Batch: STS6378
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/16/19 17:24
Container ID: 1193743008-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.413 J	1.00	0.310	mg/L	1		07/16/19 15:38

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/16/19 15:38
Container ID: 1193743008-F

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 07/15/19 09:41
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0908 J	0.100	0.0310	mg/L	1		07/18/19 18:21

Results of SHAW

Client Sample ID: **SHAW**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743008
 Lab Project ID: 1193743

Collection Date: 07/11/19 13:37
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:21
 Container ID: 1193743008-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0413	0.0200	0.00500	mg/L	1		07/17/19 14:01

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 14:01
 Container ID: 1193743008-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of DUP

Client Sample ID: **DUP**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193743009
Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
Received Date: 07/11/19 15:40
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/12/19 16:15

Batch Information

Analytical Batch: BOD6368
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/12/19 16:15
Container ID: 1193743009-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	20	1.00	1.00	col/100mL	1		07/11/19 17:48

Batch Information

Analytical Batch: BTF17487
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/11/19 17:48
Container ID: 1193743009-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	23	1	1	MPN/100r	1		07/11/19 17:32
Total Coliform	1203	1	1	MPN/100r	1		07/11/19 17:32

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/11/19 17:32
Container ID: 1193743009-B



Results of DUP

Client Sample ID: **DUP**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743009
 Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:22
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:22
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/11/19 21:22

Batch Information

Analytical Batch: WIC5934
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/11/19 21:22
 Container ID: 1193743009-E

Prep Batch: WXX12917
 Prep Method: METHOD
 Prep Date/Time: 07/11/19 17:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	6.73	1.02	0.316	mg/L	1		07/16/19 17:24

Batch Information

Analytical Batch: STS6378
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/16/19 17:24
 Container ID: 1193743009-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.369 J	1.00	0.310	mg/L	1		07/16/19 15:39

Batch Information

Analytical Batch: WDA4605
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 07/16/19 15:39
 Container ID: 1193743009-F

Prep Batch: WXX12924
 Prep Method: METHOD
 Prep Date/Time: 07/15/19 09:41
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.102	0.100	0.0310	mg/L	1		07/18/19 18:22

Results of DUP

Client Sample ID: **DUP**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193743009
 Lab Project ID: 1193743

Collection Date: 07/11/19 10:33
 Received Date: 07/11/19 15:40
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/18/19 18:22
 Container ID: 1193743009-F

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/19 16:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0396	0.0200	0.00500	mg/L	1		07/17/19 14:02

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/17/19 14:02
 Container ID: 1193743009-F

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/19 11:36
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1796267 [BOD/6368]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1518508

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6368

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/12/2019 4:15:55PM

Print Date: 07/25/2019 10:24:25AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [BOD6368]

Blank Spike Lab ID: 1518509

Date Analyzed: 07/12/2019 16:15

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007,
1193743008, 1193743009

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	204	103	(84.6-115.4

Batch Information

Analytical Batch: **BOD6368**

Analytical Method: **SM21 5210B**

Instrument:

Analyst: **A.L**

Print Date: 07/25/2019 10:24:26AM

Method Blank

Blank ID: MB for HBN 1796155 [BTF/17487]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1518192

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743005, 1193743007, 1193743008, 1193743009

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17487

Analytical Method: SM21 9222D

Instrument:

Analyst: A.L

Analytical Date/Time: 7/11/2019 5:48:34PM

Print Date: 07/25/2019 10:24:27AM



Method Blank

Blank ID: MB for HBN 1796186 [BTF/17489]
Blank Lab ID: 1518190

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 9223B

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

Batch Information

Analytical Batch: BTF17489
Analytical Method: SM21 9223B
Instrument:
Analyst: DSH
Analytical Date/Time: 7/11/2019 5:32:04PM

Print Date: 07/25/2019 10:24:29AM

Method Blank

Blank ID: MB for HBN 1796398 [STS/6378]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1519085

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6378

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 7/16/2019 5:24:05PM

Print Date: 07/25/2019 10:24:31AM

Duplicate Sample Summary

Original Sample ID: 1193743005

Duplicate Sample ID: 1519088

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Analysis Date: 07/16/2019 17:24

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	321	363	mg/L	12.20*	(< 5)

Batch Information

Analytical Batch: STS6378

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/25/2019 10:24:32AM

Duplicate Sample Summary

Original Sample ID: 1193831001

Duplicate Sample ID: 1519089

QC for Samples:

1193743006, 1193743007, 1193743008, 1193743009

Analysis Date: 07/16/2019 17:24

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	29.0	29.5	mg/L	1.70	(< 5)

Batch Information

Analytical Batch: STS6378

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/25/2019 10:24:32AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [STS6378]
 Blank Spike Lab ID: 1519086
 Date Analyzed: 07/16/2019 17:24

Spike Duplicate ID: LCSD for HBN 1193743 [STS6378]
 Spike Duplicate Lab ID: 1519087
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	24.1	96	25	24.3	97	(75-125)	0.83	(< 5)

Batch Information

Analytical Batch: **STS6378**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Method Blank

Blank ID: MB for HBN 1796247 [WXX/12917]
Blank Lab ID: 1518425

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by EPA 300.0

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

Batch Information

Analytical Batch: WIC5934
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 7/11/2019 12:50:14PM

Prep Batch: WXX12917
Prep Method: METHOD
Prep Date/Time: 7/11/2019 10:30:00AM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Print Date: 07/25/2019 10:24:35AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [WXX12917]
 Blank Spike Lab ID: 1518426
 Date Analyzed: 07/11/2019 13:09

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007,
 1193743008, 1193743009

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	4.69	94	(90-110)
Nitrite-N	5	5.15	103	(90-110)
Total Nitrate/Nitrite-N	10	9.84	98	(90-110)

Batch Information

Analytical Batch: **WIC5934**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12917**
 Prep Method: **METHOD**
 Prep Date/Time: **07/11/2019 10:30**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Print Date: 07/25/2019 10:24:36AM

Matrix Spike Summary

Original Sample ID: 1518428
 MS Sample ID: 1518429 MS
 MSD Sample ID: 1518430 MSD

Analysis Date: 07/11/2019 16:19
 Analysis Date: 07/11/2019 16:38
 Analysis Date: 07/11/2019 16:57
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	5.00	5.21	104	5.00	5.38	108	90-110	3.10	(< 15)
Nitrite-N	0.100U	5.00	5.19	104	5.00	5.25	105	90-110	1.10	(< 15)

Batch Information

Analytical Batch: WIC5934
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 7/11/2019 4:38:05PM

Prep Batch: WXX12917
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 7/11/2019 10:30:00AM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 07/25/2019 10:24:36AM

Method Blank

Blank ID: MB for HBN 1796409 [WXX/12924]
Blank Lab ID: 1519126

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4605
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/16/2019 3:04:58PM

Prep Batch: WXX12924
Prep Method: METHOD
Prep Date/Time: 7/15/2019 9:41:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/25/2019 10:24:37AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [WXX12924]
 Blank Spike Lab ID: 1519127
 Date Analyzed: 07/16/2019 15:06

Spike Duplicate ID: LCSD for HBN 1193743 [WXX12924]
 Spike Duplicate Lab ID: 1519128
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	4.11	103	4	4.06	101	(75-125)	1.30	(< 25)

Batch Information

Analytical Batch: **WDA4605**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12924**
 Prep Method: **METHOD**
 Prep Date/Time: **07/15/2019 09:41**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 07/25/2019 10:24:38AM

Matrix Spike Summary

Original Sample ID: 1193515004
 MS Sample ID: 1519129 MS
 MSD Sample ID: 1519130 MSD

Analysis Date: 07/16/2019 15:12
 Analysis Date: 07/16/2019 15:14
 Analysis Date: 07/16/2019 15:15
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.500U	4.00	4.18	105	4.00	4.37	109	75-125	4.50	(< 25)

Batch Information

Analytical Batch: WDA4605
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/16/2019 3:14:06PM

Prep Batch: WXX12924
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 7/15/2019 9:41:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 07/25/2019 10:24:39AM



Method Blank

Blank ID: MB for HBN 1796455 [WXX/12926]
Blank Lab ID: 1519345

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500P-B,E

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

Batch Information

Analytical Batch: WDA4606
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/17/2019 1:34:40PM

Prep Batch: WXX12926
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/17/2019 11:36:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/25/2019 10:24:40AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [WXX12926]
 Blank Spike Lab ID: 1519346
 Date Analyzed: 07/17/2019 13:35

Spike Duplicate ID: LCSD for HBN 1193743 [WXX12926]
 Spike Duplicate Lab ID: 1519347
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.202	101	0.2	0.210	105	(75-125)	4.10	(< 25)

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM

Prep Batch: WXX12926
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/17/2019 11:36
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1199474001
 MS Sample ID: 1519348 MS
 MSD Sample ID: 1519349 MSD

Analysis Date: 07/17/2019 13:37
 Analysis Date: 07/17/2019 13:38
 Analysis Date: 07/17/2019 13:39
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.0100U	0.200	.193	97	0.200	0.198	99	75-125	2.50	(< 25)

Batch Information

Analytical Batch: WDA4606
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/17/2019 1:38:33PM

Prep Batch: WXX12926
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/17/2019 11:36:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1796650 [WXX/12928]
Blank Lab ID: 1520159

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4608
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/18/2019 5:40:57PM

Prep Batch: WXX12928
Prep Method: METHOD
Prep Date/Time: 7/18/2019 4:45:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 07/25/2019 10:24:43AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193743 [WXX12928]
 Blank Spike Lab ID: 1520160
 Date Analyzed: 07/18/2019 17:42

Spike Duplicate ID: LCSD for HBN 1193743 [WXX12928]
 Spike Duplicate Lab ID: 1520161
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.973	97	1	1.01	101	(75-125)	3.30	(< 25)

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM

Prep Batch: WXX12928
 Prep Method: METHOD
 Prep Date/Time: 07/18/2019 16:45
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Matrix Spike Summary

Original Sample ID: 1193680001
 MS Sample ID: 1520162 MS
 MSD Sample ID: 1520163 MSD

Analysis Date: 07/18/2019 17:45
 Analysis Date: 07/18/2019 17:47
 Analysis Date: 07/18/2019 17:49
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193743001, 1193743002, 1193743003, 1193743004, 1193743005, 1193743006, 1193743007, 1193743008, 1193743009

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.100U	1.00	.968	97	1.00	0.972	97	75-125	0.35	(< 25)

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/18/2019 5:47:40PM

Prep Batch: WXX12928
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/18/2019 4:45:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Print Date: 07/25/2019 10:24:45AM



S 1193743

CHAI

- Locations Nationwide
- Alaska
- Maryland
- New Jersey
- North Carolina
- West Virginia
- Indiana
- Kentucky

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CLIENT: *Stantec*

CONTACT: *Jake Howard* PHONE NO: *248-5202*

PROJECT NAME: *Waffle WWTP*

REPORTS TO:

INVOICE TO: QUOTE #: *201700415* P.O. #:

RESERVED for lab use

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE
1	DAE SW1	7/11/19	10:33	Water
2	DAE SW2		10:57	
3	DAE SW3		11:11	
4	DAE SW4		12:30	
5	DAE SW5		12:40	
6	DAE SW6		12:18	
7	DAE SW7		12:05	
8	DAE SW8		13:37	
9	DAE DUV			

Section 2

Type	C =	COMP	G =	GRAB	Mult	Incr-	mental	Soils		
#	C	O	N	T	A	I	N	E	R	S
1										
2										
3										
4										
5										
6										
7										
8										
9										

Section 3

Section 3	Section 4	DOD Project?	Yes	No	Data Deliverable Requirements:
1					
2					
3					
4					
5					
6					
7					
8					
9					

Section 4

Requested Turnaround Time and/or Special Instructions:
Profile #3481839M

Cooler ID:

Chain of Custody Seal: (Circle)
AD
INTACT BROKEN ABSENT

Temp Blank °C: *1: 2.4 DWS*
2: 4.30 D23
or Ambient []

(See attached Sample Receipt Form) (See attached Sample Receipt Form)

Section 5

Relinquished By: (1)	Date	Time	Received By:
<i>Christi Parker</i>	7/11/19	15:40	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	07/11/2019	15:40	<i>Sharon G. Anb</i>

Section 1

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

Page 1 of 1



e-Sample Receipt Form

SGS Workorder #:

1193743



1 1 9 3 7 4 3

Review Criteria		Condition (Yes, No, N/A)	Exceptions Noted below	
Chain of Custody / Temperature Requirements			<input checked="" type="checkbox"/>	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	HD		
COC accompanied samples?	<input checked="" type="checkbox"/>			
DOD: Were samples received in COC corresponding coolers?				
<input type="checkbox"/> **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)?	<input checked="" type="checkbox"/>	Cooler ID: 1	@ 2.4 °C	Therm. ID: D45
	<input checked="" type="checkbox"/>	Cooler ID: 2	@ 4.3 °C	Therm. ID: D23
		Cooler ID:	@ °C	Therm. ID:
		Cooler ID:	@ °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.				
*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?	<input checked="" type="checkbox"/>			
Do samples match COC** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/>	at reception one container was missing for "DUP". After consulting the client By phone 1 container (1L) from "Shaw" will be used on "DUP".		
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)	<input checked="" type="checkbox"/>			
<input type="checkbox"/> ***Exemption permitted for metals (e.g, 200.8/6020A).				
Were proper containers (type/mass/volume/preservative***) used?	<input checked="" type="checkbox"/>			
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 9 Logged in as the earliest per convention.				



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1193743001-A	Na2S2O3 for Chlorine Redu	OK			
1193743001-B	Na2S2O3 for Chlorine Redu	OK			
1193743001-C	No Preservative Required	OK			
1193743001-D	No Preservative Required	OK			
1193743001-E	No Preservative Required	OK			
1193743001-F	H2SO4 to pH < 2	OK			
1193743002-A	Na2S2O3 for Chlorine Redu	OK			
1193743002-B	Na2S2O3 for Chlorine Redu	OK			
1193743002-C	No Preservative Required	OK			
1193743002-D	No Preservative Required	OK			
1193743002-E	No Preservative Required	OK			
1193743002-F	H2SO4 to pH < 2	OK			
1193743003-A	Na2S2O3 for Chlorine Redu	OK			
1193743003-B	Na2S2O3 for Chlorine Redu	OK			
1193743003-C	No Preservative Required	OK			
1193743003-D	No Preservative Required	OK			
1193743003-E	No Preservative Required	OK			
1193743003-F	H2SO4 to pH < 2	OK			
1193743004-A	Na2S2O3 for Chlorine Redu	OK			
1193743004-B	Na2S2O3 for Chlorine Redu	OK			
1193743004-C	No Preservative Required	OK			
1193743004-D	No Preservative Required	OK			
1193743004-E	No Preservative Required	OK			
1193743004-F	H2SO4 to pH < 2	OK			
1193743005-A	Na2S2O3 for Chlorine Redu	OK			
1193743005-B	Na2S2O3 for Chlorine Redu	OK			
1193743005-C	No Preservative Required	OK			
1193743005-D	No Preservative Required	OK			
1193743005-E	No Preservative Required	OK			
1193743005-F	H2SO4 to pH < 2	OK			
1193743006-A	Na2S2O3 for Chlorine Redu	OK			
1193743006-B	Na2S2O3 for Chlorine Redu	OK			
1193743006-C	No Preservative Required	OK			
1193743006-D	No Preservative Required	OK			
1193743006-E	No Preservative Required	OK			
1193743006-F	H2SO4 to pH < 2	OK			
1193743007-A	Na2S2O3 for Chlorine Redu	OK			
1193743007-B	Na2S2O3 for Chlorine Redu	OK			
1193743007-C	No Preservative Required	OK			
1193743007-D	No Preservative Required	OK			
1193743007-E	No Preservative Required	OK			
1193743007-F	H2SO4 to pH < 2	OK			
1193743008-A	Na2S2O3 for Chlorine Redu	OK			
1193743008-B	Na2S2O3 for Chlorine Redu	OK			
1193743008-C	No Preservative Required	OK			
1193743008-D	No Preservative Required	OK			
1193743008-E	No Preservative Required	OK			
1193743008-F	H2SO4 to pH < 2	OK			

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1193743009-A	Na2S2O3 for Chlorine Redu	OK			
1193743009-B	Na2S2O3 for Chlorine Redu	OK			
1193743009-C	No Preservative Required	OK			
1193743009-D	No Preservative Required	OK			
1193743009-E	No Preservative Required	OK			
1193743009-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.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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

Laboratory Report of Analysis

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

Report Number: **1193905**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1193905**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW1 (1193905001) PS

9223 – Quanti-Tray - Sample was also analyzed undiluted and showed 4 colonies of E.coli present.

1193908001DUP (1519460) DUP

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

1193781001MS (1519591) MS

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

1193781001MSD (1519592) 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.

Print Date: 07/31/2019 3:25:05PM

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, indemnification 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). SGS is only certified for the analytes listed on our Drinking Water Certification, and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW1	1193905001	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)
SW2	1193905002	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)
SW3	1193905003	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)
SW5	1193905004	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)
SW6	1193905005	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)
SW4	1193905006	07/17/2019	07/17/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
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

Print Date: 07/31/2019 3:25:07PM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1193905001
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.76	mg/L
E. Coli	0	MPN/100mL
Fecal Coliform	4.9	col/100mL
Total Coliform	1120	MPN/100mL
Ammonia-N	0.0906J	mg/L
Total Kjeldahl Nitrogen	0.653J	mg/L
Total Phosphorus	0.110	mg/L
Total Suspended Solids	385	mg/L

Waters Department

Client Sample ID: **SW2**
 Lab Sample ID: 1193905002
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.53	mg/L
E. Coli	8	MPN/100mL
Total Coliform	2420	MPN/100mL
Ammonia-N	0.0737J	mg/L
Total Kjeldahl Nitrogen	0.379J	mg/L
Total Phosphorus	0.0415	mg/L
Total Suspended Solids	17.8	mg/L

Waters Department

Client Sample ID: **SW3**
 Lab Sample ID: 1193905003
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.51	mg/L
E. Coli	0	MPN/100mL
Fecal Coliform	220	col/100mL
Total Coliform	1733	MPN/100mL
Ammonia-N	0.114	mg/L
Nitrate-N	4.09	mg/L
Nitrite-N	0.0748J	mg/L
Total Kjeldahl Nitrogen	0.804J	mg/L
Total Phosphorus	0.0324	mg/L
Total Suspended Solids	49.9	mg/L

Waters Department

Client Sample ID: **SW6**
 Lab Sample ID: 1193905005
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	164	col/100mL

Client Sample ID: **SW4**
 Lab Sample ID: 1193905006
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	70	col/100mL



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193905001
Lab Project ID: 1193905

Collection Date: 07/17/19 10:49
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.76	2.00	2.00	mg/L	1		07/18/19 10:58

Batch Information

Analytical Batch: BOD6372
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/18/19 10:58
Container ID: 1193905001-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	4.9	1.64	1.64	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/17/19 17:50
Container ID: 1193905001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	0	10	10	MPN/100r	10		07/18/19 15:52
Total Coliform	1120	10	10	MPN/100r	10		07/18/19 15:52

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 15:52
Container ID: 1193905001-C



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1193905001
Lab Project ID: 1193905

Collection Date: 07/17/19 10:49
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 385, 2.50, 0.775, mg/L, 1, 07/18/19 12:12

Batch Information

Analytical Batch: STS6382
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/18/19 12:12
Container ID: 1193905001-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.653 J, 1.00, 0.310, mg/L, 1, 07/31/19 12:55

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/31/19 12:55
Container ID: 1193905001-D
Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 07/30/19 14:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Ammonia-N, 0.0906 J, 0.100, 0.0310, mg/L, 1, 07/18/19 18:47

Batch Information

Analytical Batch: WDA4608
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/18/19 18:47
Container ID: 1193905001-D
Prep Batch: WXX12929
Prep Method: METHOD
Prep Date/Time: 07/18/19 17:20
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows: Nitrate-N (0.100 U, 0.200, 0.0500, mg/L, 2, 07/17/19 17:20), Nitrite-N (0.100 U, 0.200, 0.0500, mg/L, 2, 07/17/19 17:20)

Results of SW1

Client Sample ID: **SW1**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193905001
 Lab Project ID: 1193905

Collection Date: 07/17/19 10:49
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/17/19 17:20
 Container ID: 1193905001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.110	0.0200	0.00500	mg/L	1		07/26/19 13:11

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 13:11
 Container ID: 1193905001-D

Prep Batch: WXX12937
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 10:10
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193905002
Lab Project ID: 1193905

Collection Date: 07/17/19 11:00
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.53	2.00	2.00	mg/L	1		07/18/19 10:58

Batch Information

Analytical Batch: BOD6372
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/18/19 10:58
Container ID: 1193905002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/17/19 17:50
Container ID: 1193905002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	8	10	10	MPN/100r	10		07/18/19 15:52
Total Coliform	2420	10	10	MPN/100r	10		07/18/19 15:52

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 15:52
Container ID: 1193905002-C



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193905002
Lab Project ID: 1193905

Collection Date: 07/17/19 11:00
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	17.8	1.01	0.313	mg/L	1		07/18/19 12:12

Batch Information

Analytical Batch: STS6382
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/18/19 12:12
Container ID: 1193905002-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.379 J	1.00	0.310	mg/L	1		07/31/19 12:56

Batch Information

Analytical Batch: WDA4615	Prep Batch: WXX12944
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/30/19 14:20
Analytical Date/Time: 07/31/19 12:56	Prep Initial Wt./Vol.: 25 mL
Container ID: 1193905002-D	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0737 J	0.100	0.0310	mg/L	1		07/18/19 18:49

Batch Information

Analytical Batch: WDA4608	Prep Batch: WXX12929
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/18/19 17:20
Analytical Date/Time: 07/18/19 18:49	Prep Initial Wt./Vol.: 6 mL
Container ID: 1193905002-D	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/17/19 17:25
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/17/19 17:25

Print Date: 07/31/2019 3:25:09PM

J flagging is activated

Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193905002
 Lab Project ID: 1193905

Collection Date: 07/17/19 11:00
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/17/19 17:25
 Container ID: 1193905002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0415	0.0200	0.00500	mg/L	1		07/26/19 13:12

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 13:12
 Container ID: 1193905002-D

Prep Batch: WXX12937
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 10:10
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193905003
Lab Project ID: 1193905

Collection Date: 07/17/19 11:13
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.51	2.00	2.00	mg/L	1		07/18/19 10:58

Batch Information

Analytical Batch: BOD6372
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/18/19 10:58
Container ID: 1193905003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	220	10.0	10.0	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/17/19 17:50
Container ID: 1193905003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	0	10	10	MPN/100r	10		07/18/19 15:52
Total Coliform	1733	10	10	MPN/100r	10		07/18/19 15:52

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 15:52
Container ID: 1193905003-C



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193905003
Lab Project ID: 1193905

Collection Date: 07/17/19 11:13
Received Date: 07/17/19 16:31
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	49.9	0.980	0.304	mg/L	1		07/18/19 12:12

Batch Information

Analytical Batch: STS6382
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/18/19 12:12
Container ID: 1193905003-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.804 J	1.00	0.310	mg/L	1		07/31/19 12:57

Batch Information

Analytical Batch: WDA4615	Prep Batch: WXX12944
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/30/19 14:20
Analytical Date/Time: 07/31/19 12:57	Prep Initial Wt./Vol.: 25 mL
Container ID: 1193905003-D	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.114	0.100	0.0310	mg/L	1		07/18/19 18:51

Batch Information

Analytical Batch: WDA4608	Prep Batch: WXX12929
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/18/19 17:20
Analytical Date/Time: 07/18/19 18:51	Prep Initial Wt./Vol.: 6 mL
Container ID: 1193905003-D	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	4.09	0.200	0.0500	mg/L	2		07/17/19 17:27
Nitrite-N	0.0748 J	0.200	0.0500	mg/L	2		07/17/19 17:27

Results of SW3

Client Sample ID: **SW3**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193905003
 Lab Project ID: 1193905

Collection Date: 07/17/19 11:13
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Analyst: EWW
 Analytical Date/Time: 07/17/19 17:27
 Container ID: 1193905003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0324	0.0200	0.00500	mg/L	1		07/26/19 13:15

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 13:15
 Container ID: 1193905003-D

Prep Batch: WXX12937
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 10:10
 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: 1193905004
 Lab Project ID: 1193905

Collection Date: 07/17/19 14:00
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
 Analytical Method: SM21 9222D
 Analyst: VDL
 Analytical Date/Time: 07/17/19 17:50
 Container ID: 1193905004-A

Results of SW6

Client Sample ID: **SW6**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193905005
 Lab Project ID: 1193905

Collection Date: 07/17/19 13:00
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	164	1.64	1.64	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
 Analytical Method: SM21 9222D
 Analyst: VDL
 Analytical Date/Time: 07/17/19 17:50
 Container ID: 1193905005-A

Results of SW4

Client Sample ID: **SW4**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193905006
 Lab Project ID: 1193905

Collection Date: 07/17/19 12:30
 Received Date: 07/17/19 16:31
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	70	2.00	2.00	col/100mL	1		07/17/19 17:50

Batch Information

Analytical Batch: BTF17497
 Analytical Method: SM21 9222D
 Analyst: VDL
 Analytical Date/Time: 07/17/19 17:50
 Container ID: 1193905006-A

Method Blank

Blank ID: MB for HBN 1796553 [BOD/6372]

Blank Lab ID: 1519755

QC for Samples:

1193905001, 1193905002, 1193905003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6372

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/18/2019 10:58:42AM

Print Date: 07/31/2019 3:25:11PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [BOD6372]

Blank Spike Lab ID: 1519756

Date Analyzed: 07/18/2019 10:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	209	106	(84.6-115.4

Batch Information

Analytical Batch: BOD6372

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Print Date: 07/31/2019 3:25:12PM



Method Blank

Blank ID: MB for HBN 1796476 [BTF/17497]
Blank Lab ID: 1519428

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193905001, 1193905002, 1193905003, 1193905004, 1193905005, 1193905006

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17497
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/17/2019 5:50:00PM

Print Date: 07/31/2019 3:25:14PM

Method Blank

Blank ID: MB for HBN 1796543 [BTF/17503]

Blank Lab ID: 1519716

QC for Samples:

1193905001, 1193905002, 1193905003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 9223B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Coliform	0	1	1	MPN/100m
E. Coli	0	1	1	MPN/100m

Batch Information

Analytical Batch: BTF17503

Analytical Method: SM21 9223B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/18/2019 3:52:41PM

Print Date: 07/31/2019 3:25:17PM

Method Blank

Blank ID: MB for HBN 1796484 [STS/6380]

Blank Lab ID: 1519459

QC for Samples:

1193905001, 1193905002, 1193905003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6382

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 7/18/2019 12:12:14PM

Print Date: 07/31/2019 3:25:18PM

Duplicate Sample Summary

Original Sample ID: 1193908001
 Duplicate Sample ID: 1519460
 QC for Samples:

Analysis Date: 07/18/2019 12:12
 Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	615	523	mg/L	16.30*	(< 5)

Batch Information

Analytical Batch: STS6382
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Duplicate Sample Summary

Original Sample ID: 1193851001

Duplicate Sample ID: 1519463

QC for Samples:

1193905001, 1193905002, 1193905003

Analysis Date: 07/18/2019 12:12

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	ND	2.50	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS6382

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/31/2019 3:25:19PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [STS6382]
 Blank Spike Lab ID: 1519461
 Date Analyzed: 07/18/2019 12:12

Spike Duplicate ID: LCSD for HBN 1193905 [STS6382]
 Spike Duplicate Lab ID: 1519462
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	24.7	99	25	24.5	98	(75-125)	0.81	(< 5)

Batch Information

Analytical Batch: **STS6382**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Print Date: 07/31/2019 3:25:20PM

Method Blank

Blank ID: MB for HBN 1796516 (WFI/2828)

Blank Lab ID: 1519622

QC for Samples:

Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2828

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EWW

Analytical Date/Time: 7/17/2019 4:04:55PM

Print Date: 07/31/2019 3:25:21PM

Method Blank

Blank ID: MB for HBN 1796516 (WFI/2828)

Blank Lab ID: 1519624

QC for Samples:

1193905001, 1193905002, 1193905003

Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2828

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EWW

Analytical Date/Time: 7/17/2019 4:50:25PM

Print Date: 07/31/2019 3:25:21PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [WFI2828]

Blank Spike Lab ID: 1519621

Date Analyzed: 07/17/2019 16:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.69	108	(70-130)
Nitrite-N	2.5	2.47	99	(90-110)
Total Nitrate/Nitrite-N	5	5.16	103	(90-110)

Batch Information

Analytical Batch: **WFI2828**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Astoria segmented flow**

Analyst: **EWV**

Print Date: 07/31/2019 3:25:22PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [WFI2828]

Blank Spike Lab ID: 1519623

Date Analyzed: 07/17/2019 16:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.56	102	(70-130)
Nitrite-N	2.5	2.47	99	(90-110)
Total Nitrate/Nitrite-N	5	5.03	101	(90-110)

Batch Information

Analytical Batch: **WFI2828**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Astoria segmented flow**

Analyst: **EWV**

Print Date: 07/31/2019 3:25:22PM

Matrix Spike Summary

Original Sample ID: 1193781001
 MS Sample ID: 1519591 MS
 MSD Sample ID: 1519592 MSD

Analysis Date: 07/17/2019 15:22
 Analysis Date: 07/17/2019 15:24
 Analysis Date: 07/17/2019 15:26
 Matrix: Drinking Water

QC for Samples:

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.200U	5.00	5.93	119 *	5.00	5.86	117 *	90-110	1.20	(< 25)

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: EWW
 Analytical Date/Time: 7/17/2019 3:24:39PM

Print Date: 07/31/2019 3:25:23PM

Matrix Spike Summary

Original Sample ID: 1193905001
 MS Sample ID: 1519593 MS
 MSD Sample ID: 1519594 MSD

Analysis Date: 07/17/2019 17:20
 Analysis Date: 07/17/2019 17:22
 Analysis Date: 07/17/2019 17:24
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	2.50	2.93	117	2.50	2.78	111	70-130	5.20	(< 25)
Nitrite-N	0.100U	2.50	2.49	100	2.50	2.54	101	90-110	1.80	(< 25)

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: EWW
 Analytical Date/Time: 7/17/2019 5:22:25PM

Print Date: 07/31/2019 3:25:23PM

Matrix Spike Summary

Original Sample ID: 1199512003
 MS Sample ID: 1519595 MS
 MSD Sample ID: 1519596 MSD

Analysis Date: 07/17/2019 16:10
 Analysis Date: 07/17/2019 16:11
 Analysis Date: 07/17/2019 16:13
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.100U	5.00	5.23	105	5.00	5.27	105	90-110	0.72	(< 25)

Batch Information

Analytical Batch: WFI2828
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: EWW
 Analytical Date/Time: 7/17/2019 4:11:55PM

Method Blank

Blank ID: MB for HBN 1796651 [WXX/12929]
Blank Lab ID: 1520164

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193905001, 1193905002, 1193905003

Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0627J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4608
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/18/2019 6:31:05PM

Prep Batch: WXX12929
Prep Method: METHOD
Prep Date/Time: 7/18/2019 5:20:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 07/31/2019 3:25:24PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [WXX12929]
 Blank Spike Lab ID: 1520165
 Date Analyzed: 07/18/2019 18:32

Spike Duplicate ID: LCSD for HBN 1193905 [WXX12929]
 Spike Duplicate Lab ID: 1520166
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	1.01	101	1	1.06	106	(75-125)	5.30	(< 25)

Batch Information

Analytical Batch: **WDA4608**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12929**
 Prep Method: **METHOD**
 Prep Date/Time: **07/18/2019 17:20**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Print Date: 07/31/2019 3:25:26PM

Matrix Spike Summary

Original Sample ID: 1193804001
 MS Sample ID: 1520167 MS
 MSD Sample ID: 1520168 MSD

Analysis Date: 07/18/2019 18:36
 Analysis Date: 07/18/2019 18:41
 Analysis Date: 07/18/2019 18:42
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.100U	1.00	1.02	102	1.00	1.00	100	75-125	1.80	(< 25)

Batch Information

Analytical Batch: WDA4608
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/18/2019 6:41:04PM

Prep Batch: WXX12929
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/18/2019 5:20:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Method Blank

Blank ID: MB for HBN 1797032 [WXX/12937]
Blank Lab ID: 1521678

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193905001, 1193905002, 1193905003

Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.00760J	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/26/2019 1:03:43PM

Prep Batch: WXX12937
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/26/2019 10:10:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/31/2019 3:25:28PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [WXX12937]
 Blank Spike Lab ID: 1521679
 Date Analyzed: 07/26/2019 13:04

Spike Duplicate ID: LCSD for HBN 1193905 [WXX12937]
 Spike Duplicate Lab ID: 1521680
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.188	94	0.2	0.192	96	(75-125)	2.30	(< 25)

Batch Information

Analytical Batch: **WDA4612**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12937**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **07/26/2019 10:10**
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1199540014
 MS Sample ID: 1521681 MS
 MSD Sample ID: 1521682 MSD

Analysis Date: 07/26/2019 13:08
 Analysis Date: 07/26/2019 13:09
 Analysis Date: 07/26/2019 13:10
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.0100U	0.200	.192	96	0.200	0.194	97	75-125	1.50	(< 25)

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/26/2019 1:09:32PM

Prep Batch: WXX12937
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/26/2019 10:10:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1797221 [WXX/12944]
Blank Lab ID: 1522554

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193905001, 1193905002, 1193905003

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/31/2019 12:35:56PM

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 7/30/2019 2:20:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/31/2019 3:25:32PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193905 [WXX12944]
 Blank Spike Lab ID: 1522555
 Date Analyzed: 07/31/2019 12:37

Spike Duplicate ID: LCSD for HBN 1193905 [WXX12944]
 Spike Duplicate Lab ID: 1522556
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.31	83	4	3.46	86	(75-125)	4.30	(< 25)

Batch Information

Analytical Batch: **WDA4615**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12944**
 Prep Method: **METHOD**
 Prep Date/Time: **07/30/2019 14:20**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 07/31/2019 3:25:33PM

Matrix Spike Summary

Original Sample ID: 1198801007
 MS Sample ID: 1522557 MS
 MSD Sample ID: 1522558 MSD

Analysis Date: 07/31/2019 12:42
 Analysis Date: 07/31/2019 12:43
 Analysis Date: 07/31/2019 12:45
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193905001, 1193905002, 1193905003

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	1.00U	4.00	3.18	79	4.00	3.21	80	75-125	1.10	(< 25)

Batch Information

Analytical Batch: WDA4615
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/31/2019 12:43:45PM

Prep Batch: WXX12944
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 7/30/2019 2:20:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 07/31/2019 3:25:33PM



SGS North America Inc.
CHAIN OF CUSTODY RECORD

- Locations Nationwide
- Alaska
- Maryland
- New Jersey
- North Carolina
- West Virginia
- Indiana
- Kentucky

www.us.sgs.com

CLIENT: Stantec

CONTACT: Jake Alford

PROJECT NAME: Wasila WUPP

REPORTS TO:

INVOICE TO:

PHONE NO: 213-5202

PROJECT PWSID/ PERMIT#:

E-MAIL: Mike.Allford@stantec.com

QUOTE #:

P.O. #:

Section 1

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

Section 3		Section 4		Section 5		REMARKS/ LOC ID
#	CONTAINERS	Type	Matrix	Code	Time	
1	1	G	WAX		1049	
2	1	G			1100	
3	1	G			1113	
4	1	G			1400	
5	1	G			1300	
6	1	G			1230	

Section 2

RESERVED for lab use

DAF SW1
DAF SW2
DAF SW3
DA SW5
DA SW6
DA SW4

Section 3

Matrix Code

WAX

Section 4

Time

16:31

Section 5

Relinquished By: (1) [Signature]

Relinquished By: (2)

Relinquished By: (3)

Relinquished By: (4) [Signature]

Section 6

Received By: [Signature]

Received By:

Received By:

Received For Laboratory By: [Signature]

Section 7

Temp Blank °C: 3.6 @ 45

or Ambient []

Chain of Custody Seal: (Circle) INTACT **BROKEN** **ABSENT**



SGS Workorder #:

1193905



1 1 9 3 9 0 5

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		<input checked="" type="checkbox"/> 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?		
<input type="checkbox"/> **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 3.6 °C Therm. ID: D45
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
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	
Were proper containers (type/mass/volume/preservative***) used?	Yes	***Exemption permitted for metals (e.g.200.8/6020A).
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

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1193905001-A	No Preservative Required	OK			
1193905001-B	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905001-C	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905001-D	H ₂ SO ₄ to pH < 2	OK			
1193905001-E	No Preservative Required	OK			
1193905001-F	No Preservative Required	OK			
1193905002-A	No Preservative Required	OK			
1193905002-B	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905002-C	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905002-D	H ₂ SO ₄ to pH < 2	OK			
1193905002-E	No Preservative Required	OK			
1193905002-F	No Preservative Required	OK			
1193905003-A	No Preservative Required	OK			
1193905003-B	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905003-C	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905003-D	H ₂ SO ₄ to pH < 2	OK			
1193905003-E	No Preservative Required	OK			
1193905003-F	No Preservative Required	OK			
1193905004-A	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905005-A	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			
1193905006-A	Na ₂ S ₂ O ₃ for Chlorine Redu	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM - The container was received damaged.

FR - The container was received frozen and not usable for Bacteria or BOD analyses.

IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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



Laboratory Report of Analysis

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

Report Number: **1193940**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1193940**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW-9 (1193940005) PS

5210-BOD- Dissolved oxygen did not adequately deplete at min depletion requirement of 2 mg/L. Sample reported with an elevated detection limit. Results are estimated.

SW-10 (1193940006) PS

5210-BOD- Dissolved oxygen did not adequately deplete at min depletion requirement of 2 mg/L. Sample reported with an elevated detection limit. Results are estimated.

1193940005DUP (1520492) DUP

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

1194001005DUP (1520493) DUP

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

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

Print Date: 07/31/2019 3:26:47PM

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, indemnification 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). SGS is only certified for the analytes listed on our Drinking Water Certification, and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW-18	1193940001	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)
SW-17	1193940002	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)
Shaw	1193940003	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)
SW-8	1193940004	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)
SW-9	1193940005	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)
SW-10	1193940006	07/18/2019	07/18/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic 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

Print Date: 07/31/2019 3:26:49PM

Detectable Results Summary

Client Sample ID: SW-18			
Lab Sample ID: 1193940001			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	Fecal Coliform	160	col/100mL
Client Sample ID: SW-17			
Lab Sample ID: 1193940002			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	Fecal Coliform	173	col/100mL
Client Sample ID: Shaw			
Lab Sample ID: 1193940003			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	E. Coli	8	MPN/100mL
	Fecal Coliform	8.0	col/100mL
	Total Coliform	2420	MPN/100mL
Waters Department	Ammonia-N	0.0813J	mg/L
	Total Phosphorus	0.0598	mg/L
	Total Suspended Solids	44.6	mg/L
Client Sample ID: SW-8			
Lab Sample ID: 1193940004			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	Biochemical Oxygen Demand	2.28	mg/L
	E. Coli	6	MPN/100mL
	Fecal Coliform	30	col/100mL
	Total Coliform	201	MPN/100mL
Waters Department	Ammonia-N	0.0379J	mg/L
	Total Kjeldahl Nitrogen	0.326J	mg/L
	Total Phosphorus	0.0338	mg/L
	Total Suspended Solids	40.1	mg/L
Client Sample ID: SW-9			
Lab Sample ID: 1193940005			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	Biochemical Oxygen Demand	LT2.31	mg/L
	E. Coli	24	MPN/100mL
	Fecal Coliform	56	col/100mL
	Total Coliform	261	MPN/100mL
Waters Department	Total Phosphorus	0.0411	mg/L
	Total Suspended Solids	140	mg/L
Client Sample ID: SW-10			
Lab Sample ID: 1193940006			
Microbiology Laboratory	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
	Biochemical Oxygen Demand	LT4.2	mg/L
	E. Coli	20	MPN/100mL
	Fecal Coliform	9.8	col/100mL
	Total Coliform	980	MPN/100mL
Waters Department	Ammonia-N	0.0452J	mg/L
	Total Kjeldahl Nitrogen	1.32	mg/L
	Total Phosphorus	0.202	mg/L
	Total Suspended Solids	251	mg/L

Print Date: 07/31/2019 3:26:50PM

Results of SW-18

Client Sample ID: **SW-18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940001
Lab Project ID: 1193940

Collection Date: 07/18/19 10:35
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	160	10.0	10.0	col/100mL	1		07/18/19 18:26

Batch Information

Analytical Batch: BTF17505
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/18/19 18:26
Container ID: 1193940001-A

Results of SW-17

Client Sample ID: **SW-17**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193940002
 Lab Project ID: 1193940

Collection Date: 07/18/19 10:45
 Received Date: 07/18/19 17:13
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	173	9.09	9.09	col/100mL	1		07/18/19 18:26

Batch Information

Analytical Batch: BTF17505
 Analytical Method: SM21 9222D
 Analyst: A.L
 Analytical Date/Time: 07/18/19 18:26
 Container ID: 1193940002-A



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940003
Lab Project ID: 1193940

Collection Date: 07/18/19 14:20
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/19/19 13:50

Batch Information

Analytical Batch: BOD6373
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/19/19 13:50
Container ID: 1193940003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	8.0	2.00	2.00	col/100mL	1		07/18/19 18:33

Batch Information

Analytical Batch: BTF17505
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/18/19 18:33
Container ID: 1193940003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	8	1	1	MPN/100r	1		07/18/19 18:23
Total Coliform	2420	1	1	MPN/100r	1		07/18/19 18:23

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 18:23
Container ID: 1193940003-F



Results of **Shaw**

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940003
Lab Project ID: 1193940

Collection Date: 07/18/19 14:20
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:11
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:11
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:11

Batch Information

Analytical Batch: WIC5938
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/19/19 15:11
Container ID: 1193940003-D

Prep Batch: WXX12933
Prep Method: METHOD
Prep Date/Time: 07/19/19 09:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	44.6	2.00	0.620	mg/L	1		07/23/19 14:57

Batch Information

Analytical Batch: STS6388
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/23/19 14:57
Container ID: 1193940003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/31/19 12:47

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/31/19 12:47
Container ID: 1193940003-C

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 07/30/19 14:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0813 J	0.100	0.0310	mg/L	1		07/19/19 16:47



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940003
Lab Project ID: 1193940

Collection Date: 07/18/19 14:20
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4609
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/19/19 16:47
Container ID: 1193940003-C

Prep Batch: WXX12930
Prep Method: METHOD
Prep Date/Time: 07/19/19 15:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0598	0.0200	0.00500	mg/L	1		07/26/19 14:53

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:53
Container ID: 1193940003-C

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW-8

Client Sample ID: **SW-8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940004
Lab Project ID: 1193940

Collection Date: 07/18/19 15:00
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.28	2.00	2.00	mg/L	1		07/19/19 13:50

Batch Information

Analytical Batch: BOD6373
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/19/19 13:50
Container ID: 1193940004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	30	1.64	1.64	col/100mL	1		07/18/19 18:33

Batch Information

Analytical Batch: BTF17505
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/18/19 18:33
Container ID: 1193940004-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	6	10	10	MPN/100n	10		07/18/19 18:23
Total Coliform	201	10	10	MPN/100n	10		07/18/19 18:23

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 18:23
Container ID: 1193940004-F



Results of **SW-8**

Client Sample ID: **SW-8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940004
Lab Project ID: 1193940

Collection Date: 07/18/19 15:00
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:32
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:32
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:32

Batch Information

Analytical Batch: WIC5938
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/19/19 15:32
Container ID: 1193940004-D

Prep Batch: WXX12933
Prep Method: METHOD
Prep Date/Time: 07/19/19 09:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	40.1	1.15	0.356	mg/L	1		07/23/19 14:57

Batch Information

Analytical Batch: STS6388
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/23/19 14:57
Container ID: 1193940004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.326 J	1.00	0.310	mg/L	1		07/31/19 12:51

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/31/19 12:51
Container ID: 1193940004-C

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 07/30/19 14:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0379 J	0.100	0.0310	mg/L	1		07/19/19 16:49

Results of SW-8

Client Sample ID: **SW-8**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193940004
 Lab Project ID: 1193940

Collection Date: 07/18/19 15:00
 Received Date: 07/18/19 17:13
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4609
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/19/19 16:49
 Container ID: 1193940004-C

Prep Batch: WXX12930
 Prep Method: METHOD
 Prep Date/Time: 07/19/19 15:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0338	0.0200	0.00500	mg/L	1		07/26/19 14:56

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 14:56
 Container ID: 1193940004-C

Prep Batch: WXX12938
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW-9

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940005
Lab Project ID: 1193940

Collection Date: 07/18/19 15:11
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	<2.31	6.00	6.00	mg/L	1		07/19/19 13:50

Batch Information

Analytical Batch: BOD6373
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/19/19 13:50
Container ID: 1193940005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	56	2.00	2.00	col/100mL	1		07/18/19 18:33

Batch Information

Analytical Batch: BTF17505
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/18/19 18:33
Container ID: 1193940005-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	24	10	10	MPN/100r	10		07/18/19 18:23
Total Coliform	261	10	10	MPN/100r	10		07/18/19 18:23

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 18:23
Container ID: 1193940005-F



Results of **SW-9**

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940005
Lab Project ID: 1193940

Collection Date: 07/18/19 15:11
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:51
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:51
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 15:51

Batch Information

Analytical Batch: WIC5938
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/19/19 15:51
Container ID: 1193940005-D

Prep Batch: WXX12933
Prep Method: METHOD
Prep Date/Time: 07/19/19 09:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	140	2.00	0.620	mg/L	1		07/23/19 14:57

Batch Information

Analytical Batch: STS6388
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/23/19 14:57
Container ID: 1193940005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		07/31/19 12:52

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/31/19 12:52
Container ID: 1193940005-C

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 07/30/19 14:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		07/19/19 16:50



Results of **SW-9**

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940005
Lab Project ID: 1193940

Collection Date: 07/18/19 15:11
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4609
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/19/19 16:50
Container ID: 1193940005-C

Prep Batch: WXX12930
Prep Method: METHOD
Prep Date/Time: 07/19/19 15:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0411	0.0200	0.00500	mg/L	1		07/26/19 14:57

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:57
Container ID: 1193940005-C

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW-10

Client Sample ID: **SW-10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940006
Lab Project ID: 1193940

Collection Date: 07/18/19 15:20
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	<4.2	6.00	6.00	mg/L	1		07/19/19 13:50

Batch Information

Analytical Batch: BOD6373
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/19/19 13:50
Container ID: 1193940006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	9.8	1.96	1.96	col/100mL	1		07/18/19 18:33

Batch Information

Analytical Batch: BTF17505
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/18/19 18:33
Container ID: 1193940006-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20	1	1	MPN/100r	1		07/18/19 18:23
Total Coliform	980	1	1	MPN/100r	1		07/18/19 18:23

Batch Information

Analytical Batch: BTF17503
Analytical Method: SM21 9223B
Analyst: A.L
Analytical Date/Time: 07/18/19 18:23
Container ID: 1193940006-F



Results of **SW-10**

Client Sample ID: **SW-10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1193940006
Lab Project ID: 1193940

Collection Date: 07/18/19 15:20
Received Date: 07/18/19 17:13
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 16:10
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 16:10
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/19/19 16:10

Batch Information

Analytical Batch: WIC5938
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/19/19 16:10
Container ID: 1193940006-D

Prep Batch: WXX12933
Prep Method: METHOD
Prep Date/Time: 07/19/19 09:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	251	2.00	0.620	mg/L	1		07/23/19 14:57

Batch Information

Analytical Batch: STS6388
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/23/19 14:57
Container ID: 1193940006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.32	1.00	0.310	mg/L	1		07/31/19 12:54

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/31/19 12:54
Container ID: 1193940006-C

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 07/30/19 14:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0452 J	0.100	0.0310	mg/L	1		07/19/19 16:52

Results of SW-10

Client Sample ID: **SW-10**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1193940006
 Lab Project ID: 1193940

Collection Date: 07/18/19 15:20
 Received Date: 07/18/19 17:13
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4609
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/19/19 16:52
 Container ID: 1193940006-C

Prep Batch: WXX12930
 Prep Method: METHOD
 Prep Date/Time: 07/19/19 15:45
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.202	0.0200	0.00500	mg/L	1		07/26/19 14:58

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 14:58
 Container ID: 1193940006-C

Prep Batch: WXX12938
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Method Blank

Blank ID: MB for HBN 1796596 [BOD/6373]
Blank Lab ID: 1519944

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6373
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 7/19/2019 1:50:37PM

Print Date: 07/31/2019 3:26:54PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [BOD6373]

Blank Spike Lab ID: 1519945

Date Analyzed: 07/19/2019 13:50

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	203	103	(84.6-115.4

Batch Information

Analytical Batch: **BOD6373**

Analytical Method: **SM21 5210B**

Instrument:

Analyst: **A.L**

Print Date: 07/31/2019 3:26:55PM

Method Blank

Blank ID: MB for HBN 1796543 [BTF/17503]

Blank Lab ID: 1519716

QC for Samples:

1193940003, 1193940004, 1193940005, 1193940006

Matrix: Water (Surface, Eff., Ground)

Results by SM21 9223B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Coliform	0	1	1	MPN/100m
E. Coli	0	1	1	MPN/100m

Batch Information

Analytical Batch: BTF17503

Analytical Method: SM21 9223B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/18/2019 3:52:41PM

Print Date: 07/31/2019 3:26:56PM



Method Blank

Blank ID: MB for HBN 1796551 [BTF/17505]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1519753

QC for Samples:

1193940001, 1193940002, 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17505

Analytical Method: SM21 9222D

Instrument:

Analyst: A.L

Analytical Date/Time: 7/18/2019 6:26:54PM

Print Date: 07/31/2019 3:26:58PM



Method Blank

Blank ID: MB for HBN 1796724 [STS/6388]

Blank Lab ID: 1520489

QC for Samples:

1193940003, 1193940004, 1193940005, 1193940006

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6388

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 7/23/2019 2:57:02PM

Print Date: 07/31/2019 3:27:00PM

Duplicate Sample Summary

Original Sample ID: 1193940005

Duplicate Sample ID: 1520492

QC for Samples:

1193940003, 1193940004, 1193940005, 1193940006

Analysis Date: 07/23/2019 14:57

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	140	105	mg/L	28.30*	(< 5)

Batch Information

Analytical Batch: STS6388

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/31/2019 3:27:01PM

Duplicate Sample Summary

Original Sample ID: 1194001005

Duplicate Sample ID: 1520493

QC for Samples:

1193940006

Analysis Date: 07/23/2019 14:57

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	106	117	mg/L	9.90*	(< 5)

Batch Information

Analytical Batch: STS6388

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 07/31/2019 3:27:01PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [STS6388]
 Blank Spike Lab ID: 1520490
 Date Analyzed: 07/23/2019 14:57

Spike Duplicate ID: LCSD for HBN 1193940 [STS6388]
 Spike Duplicate Lab ID: 1520491
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	24.5	98	25	24.4	98	(75-125)	0.41	(< 5)

Batch Information

Analytical Batch: STS6388
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Print Date: 07/31/2019 3:27:02PM

Method Blank

Blank ID: MB for HBN 1796655 [WXX/12930]
Blank Lab ID: 1520191

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0739J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4609
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/19/2019 4:42:33PM

Prep Batch: WXX12930
Prep Method: METHOD
Prep Date/Time: 7/19/2019 3:45:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 07/31/2019 3:27:03PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [WXX12930]
 Blank Spike Lab ID: 1520192
 Date Analyzed: 07/19/2019 16:44

Spike Duplicate ID: LCSD for HBN 1193940 [WXX12930]
 Spike Duplicate Lab ID: 1520193
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	1.04	104	1	1.10	110	(75-125)	6.20	(< 25)

Batch Information

Analytical Batch: **WDA4609**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12930**
 Prep Method: **METHOD**
 Prep Date/Time: **07/19/2019 15:45**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Print Date: 07/31/2019 3:27:04PM

Matrix Spike Summary

Original Sample ID: 1199540001
 MS Sample ID: 1520194 MS
 MSD Sample ID: 1520195 MSD

Analysis Date: 07/19/2019 16:54
 Analysis Date: 07/19/2019 16:55
 Analysis Date: 07/19/2019 16:57
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.0500U	1.00	1.08	108	1.00	1.07	107	75-125	1.20	(< 25)

Batch Information

Analytical Batch: WDA4609
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/19/2019 4:55:58PM

Prep Batch: WXX12930
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/19/2019 3:45:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Method Blank

Blank ID: MB for HBN 1796715 [WXX/12933]
 Blank Lab ID: 1520457

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
 1193940003, 1193940004, 1193940005, 1193940006

Results by EPA 300.0

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.0610J	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.0690J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WIC5938
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 7/19/2019 2:12:07PM

Prep Batch: WXX12933
 Prep Method: METHOD
 Prep Date/Time: 7/19/2019 9:00:00AM
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

Print Date: 07/31/2019 3:27:05PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [WXX12933]
 Blank Spike Lab ID: 1520458
 Date Analyzed: 07/19/2019 14:32

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	4.66	93	(90-110)
Nitrite-N	5	5.07	101	(90-110)
Total Nitrate/Nitrite-N	10	9.72	97	(90-110)

Batch Information

Analytical Batch: **WIC5938**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12933**
 Prep Method: **METHOD**
 Prep Date/Time: **07/19/2019 09:00**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Print Date: 07/31/2019 3:27:06PM

Matrix Spike Summary

Original Sample ID: 1520456
 MS Sample ID: 1520459 MS
 MSD Sample ID: 1520460 MSD

Analysis Date: 07/19/2019 16:29
 Analysis Date: 07/19/2019 16:55
 Analysis Date: 07/19/2019 17:16
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.0990J	5.00	4.62	90	5.00	4.64	91	90-110	0.50	(< 15)
Nitrite-N	0.100U	5.00	4.67	94	5.00	4.72	94	90-110	0.98	(< 15)

Batch Information

Analytical Batch: WIC5938
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 7/19/2019 4:55:18PM

Prep Batch: WXX12933
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 7/19/2019 9:00:00AM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 07/31/2019 3:27:07PM

Method Blank

Blank ID: MB for HBN 1797033 [WXX/12938]

Blank Lab ID: 1521683

QC for Samples:

1193940003, 1193940004, 1193940005, 1193940006

Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500P-B,E

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

Batch Information

Analytical Batch: WDA4612

Analytical Method: SM21 4500P-B,E

Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 7/26/2019 2:32:39PM

Prep Batch: WXX12938

Prep Method: SM21 4500P-B,E

Prep Date/Time: 7/26/2019 11:19:00AM

Prep Initial Wt./Vol.: 25 mL

Prep Extract Vol: 25 mL

Print Date: 07/31/2019 3:27:08PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [WXX12938]
 Blank Spike Lab ID: 1521684
 Date Analyzed: 07/26/2019 14:33

Spike Duplicate ID: LCSD for HBN 1193940 [WXX12938]
 Spike Duplicate Lab ID: 1521685
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.185	93	0.2	0.183	91	(75-125)	1.30	(< 25)

Batch Information

Analytical Batch: **WDA4612**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12938**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **07/26/2019 11:19**
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 07/31/2019 3:27:09PM

Matrix Spike Summary

Original Sample ID: 1194035001
 MS Sample ID: 1521686 MS
 MSD Sample ID: 1521687 MSD

Analysis Date: 07/26/2019 16:00
 Analysis Date: 07/26/2019 16:01
 Analysis Date: 07/26/2019 16:01
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.468	1.00	1.38	91	1.00	1.36	90	75-125	0.88	(< 25)

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/26/2019 4:01:07PM

Prep Batch: WXX12938
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/26/2019 3:15:00PM
 Prep Initial Wt./Vol.: 5.00mL
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1797221 [WXX/12944]
Blank Lab ID: 1522554

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4615
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/31/2019 12:35:56PM

Prep Batch: WXX12944
Prep Method: METHOD
Prep Date/Time: 7/30/2019 2:20:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 07/31/2019 3:27:10PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1193940 [WXX12944]
 Blank Spike Lab ID: 1522555
 Date Analyzed: 07/31/2019 12:37

Spike Duplicate ID: LCSD for HBN 1193940 [WXX12944]
 Spike Duplicate Lab ID: 1522556
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.31	83	4	3.46	86	(75-125)	4.30	(< 25)

Batch Information

Analytical Batch: **WDA4615**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12944**
 Prep Method: **METHOD**
 Prep Date/Time: **07/30/2019 14:20**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 07/31/2019 3:27:11PM

Matrix Spike Summary

Original Sample ID: 1198801007
 MS Sample ID: 1522557 MS
 MSD Sample ID: 1522558 MSD

Analysis Date: 07/31/2019 12:42
 Analysis Date: 07/31/2019 12:43
 Analysis Date: 07/31/2019 12:45
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1193940003, 1193940004, 1193940005, 1193940006

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	1.00U	4.00	3.18	79	4.00	3.21	80	75-125	1.10	(< 25)

Batch Information

Analytical Batch: WDA4615
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/31/2019 12:43:45PM

Prep Batch: WXX12944
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 7/30/2019 2:20:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 07/31/2019 3:27:12PM



SGS North America Inc
CHAIN OF CUSTODY REC

1193940



Locations Nationwide
Alaska Maryland
New Jersey New York
North Carolina Indiana
West Virginia Kentucky

www.us.sgs.com

CLIENT: *Stantec*

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. #:**

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

Page *1* of *1*

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	#	CONTAINERS	Preservative						REMARKS/LOC ID
							TSS	BOD	Ammonia/TKN/TP/HSO ₄	Nitrate/Nitrite	PC	TC Quant	
<i>QA</i>	<i>Sw-18</i>	<i>7/18/19</i>	<i>1035</i>	<i>W</i>	<i>1</i>	<i>G</i>							
<i>QA</i>	<i>Sw-17</i>	<i>7/18/19</i>	<i>1045</i>	<i>W</i>	<i>1</i>	<i>G</i>							
<i>QA-F</i>	<i>Shaw</i>	<i>7/18/19</i>	<i>1420</i>	<i>W</i>	<i>6</i>	<i>G</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>		
<i>QA-F</i>	<i>Sw-8</i>	<i>7/18/19</i>	<i>1500</i>	<i>W</i>	<i>6</i>	<i>G</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>		
<i>QA-F</i>	<i>Sw-9</i>	<i>7/18/19</i>	<i>1511</i>	<i>W</i>	<i>6</i>	<i>G</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>		
<i>QA-F</i>	<i>Sw-10</i>	<i>7/18/19</i>	<i>1520</i>	<i>W</i>	<i>6</i>	<i>G</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>		

Section 4 DOD Project? Yes No **Data Deliverable Requirements:**

Cooler ID: _____

Section 5 Requested Turnaround Time and/or Special Instructions:
Profile #348183 JM

Temp Blank °C: *4.7* *D45* Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

(See attached Sample Receipt Form) (See attached Sample Receipt Form)



e-Sample Receipt Form

SGS Workorder #:

1193940



1 1 9 3 9 4 0

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	Absent
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
N/A **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 4.7 °C Therm. ID: D45
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
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	
Were proper containers (type/mass/volume/preservative***) used?	Yes	N/A ***Exemption permitted for metals (e.g, 200.8/6020A).
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

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1193940001-A	Na2S2O3 for Chlorine Redu	OK			
1193940002-A	Na2S2O3 for Chlorine Redu	OK			
1193940003-A	No Preservative Required	OK			
1193940003-B	No Preservative Required	OK			
1193940003-C	H2SO4 to pH < 2	OK			
1193940003-D	No Preservative Required	OK			
1193940003-E	Na2S2O3 for Chlorine Redu	OK			
1193940003-F	Na2S2O3 for Chlorine Redu	OK			
1193940004-A	No Preservative Required	OK			
1193940004-B	No Preservative Required	OK			
1193940004-C	H2SO4 to pH < 2	OK			
1193940004-D	No Preservative Required	OK			
1193940004-E	Na2S2O3 for Chlorine Redu	OK			
1193940004-F	Na2S2O3 for Chlorine Redu	OK			
1193940005-A	No Preservative Required	OK			
1193940005-B	No Preservative Required	OK			
1193940005-C	H2SO4 to pH < 2	OK			
1193940005-D	No Preservative Required	OK			
1193940005-E	Na2S2O3 for Chlorine Redu	OK			
1193940005-F	Na2S2O3 for Chlorine Redu	OK			
1193940006-A	No Preservative Required	OK			
1193940006-B	No Preservative Required	OK			
1193940006-C	H2SO4 to pH < 2	OK			
1193940006-D	No Preservative Required	OK			
1193940006-E	Na2S2O3 for Chlorine Redu	OK			
1193940006-F	Na2S2O3 for Chlorine Redu	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM - The container was received damaged.

FR - The container was received frozen and not usable for Bacteria or BOD analyses.

IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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



Laboratory Report of Analysis

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

Report Number: **1194035**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1194035**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW2 (1194035002) PS

9223 -Quant Tray- Sample was also analysed undiluted and showed 4 colonies of E. coli present.

SW8 (1194035008) PS

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

1194065001DUP (1520799) DUP

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

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

Print Date: 08/07/2019 9:55:11AM

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, indemnification and jurisdiction issues defined therein.

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW1	1194035001	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW2	1194035002	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW3	1194035003	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW4	1194035004	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW5	1194035005	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW6	1194035006	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW7	1194035007	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW8	1194035008	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW9	1194035009	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)
SW10	1194035010	07/23/2019	07/23/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic 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

Print Date: 08/07/2019 9:55:13AM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1194035001
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	11.3	mg/L
E. Coli	20	MPN/100mL
Total Coliform	6160	MPN/100mL
Ammonia-N	0.178	mg/L
Total Kjeldahl Nitrogen	3.56	mg/L
Total Phosphorus	0.468	mg/L
Total Suspended Solids	184	mg/L

Client Sample ID: **SW2**
 Lab Sample ID: 1194035002
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.47	mg/L
Fecal Coliform	6.6	col/100mL
Total Coliform	9220	MPN/100mL
Ammonia-N	0.0424J	mg/L
Total Kjeldahl Nitrogen	0.557J	mg/L
Total Phosphorus	0.0297	mg/L
Total Suspended Solids	24.8	mg/L

Client Sample ID: **SW3**
 Lab Sample ID: 1194035003
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	28	MPN/100mL
Fecal Coliform	16	col/100mL
Total Coliform	GT2420	MPN/100mL
Nitrate-N	4.35	mg/L
Total Kjeldahl Nitrogen	0.841J	mg/L
Total Nitrate/Nitrite-N	4.39	mg/L
Total Phosphorus	0.0243	mg/L
Total Suspended Solids	25.1	mg/L

Client Sample ID: **SW4**
 Lab Sample ID: 1194035004
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.50	mg/L
E. Coli	60	MPN/100mL
Fecal Coliform	94	col/100mL
Total Coliform	34660	MPN/100mL
Ammonia-N	0.0410J	mg/L
Total Kjeldahl Nitrogen	0.869J	mg/L
Total Phosphorus	0.0238	mg/L
Total Suspended Solids	158	mg/L

Detectable Results Summary

Client Sample ID: **SW5**
 Lab Sample ID: 1194035005
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.45	mg/L
E. Coli	40	MPN/100mL
Fecal Coliform	21	col/100mL
Total Coliform	2840	MPN/100mL
Ammonia-N	0.0509J	mg/L
Total Kjeldahl Nitrogen	0.593J	mg/L
Total Phosphorus	0.0746	mg/L
Total Suspended Solids	119	mg/L

Client Sample ID: **SW6**
 Lab Sample ID: 1194035006
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.39	mg/L
E. Coli	74	MPN/100mL
Fecal Coliform	78	col/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0457J	mg/L
Total Kjeldahl Nitrogen	0.770J	mg/L
Total Phosphorus	0.0581	mg/L
Total Suspended Solids	39.5	mg/L

Client Sample ID: **SW7**
 Lab Sample ID: 1194035007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.31	mg/L
E. Coli	20	MPN/100mL
Fecal Coliform	40	col/100mL
Total Coliform	4500	MPN/100mL
Ammonia-N	0.0536J	mg/L
Total Kjeldahl Nitrogen	0.568J	mg/L
Total Phosphorus	0.0627	mg/L
Total Suspended Solids	71.9	mg/L

Client Sample ID: **SW8**
 Lab Sample ID: 1194035008
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.18	mg/L
Fecal Coliform	4.9	col/100mL
Total Coliform	1140	MPN/100mL
Ammonia-N	0.0413J	mg/L
Total Kjeldahl Nitrogen	0.417J	mg/L
Total Phosphorus	0.0351	mg/L
Total Suspended Solids	109	mg/L

Detectable Results Summary

Client Sample ID: **SW9**
 Lab Sample ID: 1194035009
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.86	mg/L
E. Coli	160	MPN/100mL
Fecal Coliform	64	col/100mL
Total Coliform	15400	MPN/100mL
Ammonia-N	0.110	mg/L
Total Kjeldahl Nitrogen	4.27	mg/L
Total Phosphorus	0.527	mg/L
Total Suspended Solids	349	mg/L

Waters Department

Client Sample ID: **SW10**
 Lab Sample ID: 1194035010
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.15	mg/L
E. Coli	7	MPN/100mL
Fecal Coliform	3.3	col/100mL
Total Coliform	387	MPN/100mL
Ammonia-N	0.0518J	mg/L
Total Kjeldahl Nitrogen	0.759J	mg/L
Total Phosphorus	0.0657	mg/L
Total Suspended Solids	130	mg/L

Waters Department



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035001
Lab Project ID: 1194035

Collection Date: 07/23/19 09:53
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	11.3	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035001-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	6160	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035001-B



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035001
Lab Project ID: 1194035

Collection Date: 07/23/19 09:53
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 12:25
Container ID: 1194035001-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035001-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 09:52
Container ID: 1194035001-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035001
Lab Project ID: 1194035

Collection Date: 07/23/19 09:53
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:28
Container ID: 1194035001-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.468	0.100	0.0250	mg/L	1		07/26/19 16:00

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 16:00
Container ID: 1194035001-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 15:15
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 25 mL



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035002
Lab Project ID: 1194035

Collection Date: 07/23/19 10:05
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.47	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035002-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	6.6	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20 U	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	9220	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035002-B



Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035002
 Lab Project ID: 1194035

Collection Date: 07/23/19 10:05
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 13:22
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 13:22
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 13:22

Batch Information

Analytical Batch: WIC5940
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/24/19 13:22
 Container ID: 1194035002-C

Prep Batch: WXX12935
 Prep Method: METHOD
 Prep Date/Time: 07/24/19 09:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	24.8	1.02	0.316	mg/L	1		07/24/19 15:22

Batch Information

Analytical Batch: STS6393
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/24/19 15:22
 Container ID: 1194035002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.557 J	1.00	0.310	mg/L	1		08/06/19 09:53

Batch Information

Analytical Batch: WDA4619
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 08/06/19 09:53
 Container ID: 1194035002-F

Prep Batch: WXX12954
 Prep Method: METHOD
 Prep Date/Time: 08/05/19 08:33
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0424 J	0.100	0.0310	mg/L	1		07/31/19 14:30

Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035002
 Lab Project ID: 1194035

Collection Date: 07/23/19 10:05
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/31/19 14:30
 Container ID: 1194035002-F

Prep Batch: WXX12946
 Prep Method: METHOD
 Prep Date/Time: 07/31/19 13:15
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0297	0.0200	0.00500	mg/L	1		07/26/19 16:22

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 16:22
 Container ID: 1194035002-F

Prep Batch: WXX12938
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035003
Lab Project ID: 1194035

Collection Date: 07/23/19 10:19
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035003-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	16	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	28	1	1	MPN/100r	1		07/23/19 17:34
Total Coliform	>2420	1	1	MPN/100r	1		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035003-B



Results of SW3

Client Sample ID: SW3
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035003
Lab Project ID: 1194035

Collection Date: 07/23/19 10:19
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 13:41
Container ID: 1194035003-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035003-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 09:55
Container ID: 1194035003-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035003
Lab Project ID: 1194035

Collection Date: 07/23/19 10:19
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:32
Container ID: 1194035003-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0243	0.0200	0.00500	mg/L	1		07/26/19 14:45

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:45
Container ID: 1194035003-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW4

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035004
Lab Project ID: 1194035

Collection Date: 07/23/19 11:38
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.50	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035004-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	94	2.00	2.00	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	60	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	34660	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035004-B



Results of SW4

Client Sample ID: SW4
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035004
Lab Project ID: 1194035

Collection Date: 07/23/19 11:38
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 14:00
Container ID: 1194035004-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035004-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 09:59
Container ID: 1194035004-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW4

Client Sample ID: **SW4**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035004
 Lab Project ID: 1194035

Collection Date: 07/23/19 11:38
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/31/19 14:37
 Container ID: 1194035004-F

Prep Batch: WXX12946
 Prep Method: METHOD
 Prep Date/Time: 07/31/19 13:15
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0238	0.0200	0.00500	mg/L	1		07/26/19 14:46

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 14:46
 Container ID: 1194035004-F

Prep Batch: WXX12938
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 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: 1194035005
Lab Project ID: 1194035

Collection Date: 07/23/19 11:48
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.45	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035005-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	21	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	40	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	2840	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035005-B



Results of SW5

Client Sample ID: SW5
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035005
Lab Project ID: 1194035

Collection Date: 07/23/19 11:48
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 14:19
Container ID: 1194035005-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035005-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 10:00
Container ID: 1194035005-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035005
Lab Project ID: 1194035

Collection Date: 07/23/19 11:48
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:38
Container ID: 1194035005-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0746	0.0200	0.00500	mg/L	1		07/26/19 14:47

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:47
Container ID: 1194035005-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW6

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035006
Lab Project ID: 1194035

Collection Date: 07/23/19 11:24
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.39	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035006-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	78	2.00	2.00	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	74	1	1	MPN/100r	1		07/23/19 17:34
Total Coliform	>2420	1	1	MPN/100r	1		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035006-B



Results of SW6

Client Sample ID: **SW6**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035006
 Lab Project ID: 1194035

Collection Date: 07/23/19 11:24
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:16
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:16
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:16

Batch Information

Analytical Batch: WIC5940
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/24/19 15:16
 Container ID: 1194035006-C

Prep Batch: WXX12935
 Prep Method: METHOD
 Prep Date/Time: 07/24/19 09:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	39.5	1.01	0.313	mg/L	1		07/24/19 15:22

Batch Information

Analytical Batch: STS6393
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/24/19 15:22
 Container ID: 1194035006-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.770 J	1.00	0.310	mg/L	1		08/06/19 10:04

Batch Information

Analytical Batch: WDA4619
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 08/06/19 10:04
 Container ID: 1194035006-F

Prep Batch: WXX12954
 Prep Method: METHOD
 Prep Date/Time: 08/05/19 08:33
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0457 J	0.100	0.0310	mg/L	1		07/31/19 14:43



Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035006
Lab Project ID: 1194035

Collection Date: 07/23/19 11:24
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:43
Container ID: 1194035006-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0581	0.0200	0.00500	mg/L	1		07/26/19 14:48

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:48
Container ID: 1194035006-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW7

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035007
Lab Project ID: 1194035

Collection Date: 07/23/19 11:15
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.31	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035007-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	40	2.00	2.00	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035007-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	4500	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035007-B



Results of SW7

Client Sample ID: **SW7**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035007
 Lab Project ID: 1194035

Collection Date: 07/23/19 11:15
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:35
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:35
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		07/24/19 15:35

Batch Information

Analytical Batch: WIC5940
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 07/24/19 15:35
 Container ID: 1194035007-C

Prep Batch: WXX12935
 Prep Method: METHOD
 Prep Date/Time: 07/24/19 09:30
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	71.9	0.980	0.304	mg/L	1		07/24/19 15:22

Batch Information

Analytical Batch: STS6393
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 07/24/19 15:22
 Container ID: 1194035007-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.568 J	1.00	0.310	mg/L	1		08/06/19 10:05

Batch Information

Analytical Batch: WDA4619
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 08/06/19 10:05
 Container ID: 1194035007-F

Prep Batch: WXX12954
 Prep Method: METHOD
 Prep Date/Time: 08/05/19 08:33
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0536 J	0.100	0.0310	mg/L	1		07/31/19 14:45



Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035007
Lab Project ID: 1194035

Collection Date: 07/23/19 11:15
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:45
Container ID: 1194035007-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0627	0.0200	0.00500	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194035007-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW8

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035008
Lab Project ID: 1194035

Collection Date: 07/23/19 13:18
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.18	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035008-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	4.9	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035008-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20 U	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	1140	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035008-B



Results of SW8

Client Sample ID: SW8
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035008
Lab Project ID: 1194035

Collection Date: 07/23/19 13:18
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 15:54
Container ID: 1194035008-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035008-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 10:07
Container ID: 1194035008-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW8

Client Sample ID: **SW8**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194035008
 Lab Project ID: 1194035

Collection Date: 07/23/19 13:18
 Received Date: 07/23/19 15:27
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 07/31/19 14:47
 Container ID: 1194035008-F

Prep Batch: WXX12946
 Prep Method: METHOD
 Prep Date/Time: 07/31/19 13:15
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0351	0.0200	0.00500	mg/L	1		07/26/19 14:50

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 14:50
 Container ID: 1194035008-F

Prep Batch: WXX12938
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW9

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035009
Lab Project ID: 1194035

Collection Date: 07/23/19 13:05
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.86	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035009-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	64	9.09	9.09	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035009-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	160	20	20	MPN/100r	20		07/23/19 17:34
Total Coliform	15400	20	20	MPN/100r	20		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035009-B



Results of SW9

Client Sample ID: SW9
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035009
Lab Project ID: 1194035

Collection Date: 07/23/19 13:05
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 16:13
Container ID: 1194035009-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035009-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 10:08
Container ID: 1194035009-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035009
Lab Project ID: 1194035

Collection Date: 07/23/19 13:05
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:48
Container ID: 1194035009-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.527	0.100	0.0250	mg/L	1		07/26/19 16:03

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 16:03
Container ID: 1194035009-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 15:15
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 25 mL



Results of SW10

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035010
Lab Project ID: 1194035

Collection Date: 07/23/19 12:50
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.15	2.00	2.00	mg/L	1		07/24/19 12:41

Batch Information

Analytical Batch: BOD6377
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/24/19 12:41
Container ID: 1194035010-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	3.3	1.64	1.64	col/100mL	1		07/23/19 17:13

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/23/19 17:13
Container ID: 1194035010-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	7	1	1	MPN/100r	1		07/23/19 17:34
Total Coliform	387	1	1	MPN/100r	1		07/23/19 17:34

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 07/23/19 17:34
Container ID: 1194035010-B



Results of SW10

Client Sample ID: SW10
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194035010
Lab Project ID: 1194035

Collection Date: 07/23/19 12:50
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 07/24/19 16:32
Container ID: 1194035010-C
Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 07/24/19 09:30
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6393
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/24/19 15:22
Container ID: 1194035010-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 10:09
Container ID: 1194035010-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194035010
Lab Project ID: 1194035

Collection Date: 07/23/19 12:50
Received Date: 07/23/19 15:27
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/31/19 14:50
Container ID: 1194035010-F

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 07/31/19 13:15
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0657	0.0200	0.00500	mg/L	1		07/26/19 14:52

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 14:52
Container ID: 1194035010-F

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1796822 [BOD/6377]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1520813

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6377

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/24/2019 12:41:53PM

Print Date: 08/07/2019 9:55:19AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [BOD6377]
 Blank Spike Lab ID: 1520814
 Date Analyzed: 07/24/2019 12:41

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007,
 1194035008, 1194035009, 1194035010

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	205	104	(84.6-115.4

Batch Information

Analytical Batch: **BOD6377**
 Analytical Method: **SM21 5210B**
 Instrument:
 Analyst: **A.L**

Print Date: 08/07/2019 9:55:20AM



Method Blank

Blank ID: MB for HBN 1796776 [BTF/17509]
Blank Lab ID: 1520668

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 9223B

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

Batch Information

Analytical Batch: BTF17509
Analytical Method: SM21 9223B
Instrument:
Analyst: VDL
Analytical Date/Time: 7/23/2019 12:16:27PM

Print Date: 08/07/2019 9:55:21AM

Method Blank

Blank ID: MB for HBN 1796779 [BTF/17512]
Blank Lab ID: 1520674

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17512
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/23/2019 4:08:00PM

Print Date: 08/07/2019 9:55:23AM



Method Blank

Blank ID: MB for HBN 1796811 [STS/6391]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1520798

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6393

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 7/24/2019 3:22:58PM

Print Date: 08/07/2019 9:55:25AM

Duplicate Sample Summary

Original Sample ID: 1194065001

Duplicate Sample ID: 1520799

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Analysis Date: 07/24/2019 15:22

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	1110	995	mg/L	10.90*	(< 5)

Batch Information

Analytical Batch: STS6393

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 08/07/2019 9:55:26AM

Duplicate Sample Summary

Original Sample ID: 1194036001

Duplicate Sample ID: 1520805

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Analysis Date: 07/24/2019 15:22

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	211	211	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS6393

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 08/07/2019 9:55:26AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [STS6393]
 Blank Spike Lab ID: 1520800
 Date Analyzed: 07/24/2019 15:22

Spike Duplicate ID: LCSD for HBN 1194035 [STS6393]
 Spike Duplicate Lab ID: 1520801
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	24.3	97	25	23.8	95	(75-125)	2.10	(< 5)

Batch Information

Analytical Batch: **STS6393**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Print Date: 08/07/2019 9:55:26AM

Method Blank

Blank ID: MB for HBN 1796859 [WXX/12935]
Blank Lab ID: 1520969

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by EPA 300.0

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

Batch Information

Analytical Batch: WIC5940
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 7/24/2019 11:47:10AM

Prep Batch: WXX12935
Prep Method: METHOD
Prep Date/Time: 7/24/2019 9:30:00AM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Print Date: 08/07/2019 9:55:28AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [WXX12935]
 Blank Spike Lab ID: 1520970
 Date Analyzed: 07/24/2019 12:06

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007,
 1194035008, 1194035009, 1194035010

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	4.94	99	(90-110)
Nitrite-N	5	5.13	103	(90-110)
Total Nitrate/Nitrite-N	10	10.1	101	(90-110)

Batch Information

Analytical Batch: **WIC5940**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12935**
 Prep Method: **METHOD**
 Prep Date/Time: **07/24/2019 09:30**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 1194035001
 MS Sample ID: 1520971 MS
 MSD Sample ID: 1520972 MSD

Analysis Date: 07/24/2019 12:25
 Analysis Date: 07/24/2019 12:44
 Analysis Date: 07/24/2019 13:03
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	5.00	4.89	98	5.00	4.89	98	90-110	0.18	(< 15)
Nitrite-N	0.100U	5.00	5.09	102	5.00	5.10	102	90-110	0.16	(< 15)
Total Nitrate/Nitrite-N	0.100U	10.0	9.98	100	10.0	9.99	100	90-110	0.17	(< 15)

Batch Information

Analytical Batch: WIC5940
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 7/24/2019 12:44:10PM

Prep Batch: WXX12935
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 7/24/2019 9:30:00AM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 08/07/2019 9:55:31AM



Method Blank

Blank ID: MB for HBN 1797033 [WXX/12938]
Blank Lab ID: 1521683

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500P-B,E

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

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/26/2019 2:32:39PM

Prep Batch: WXX12938
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/26/2019 11:19:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/07/2019 9:55:35AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [WXX12938]
 Blank Spike Lab ID: 1521684
 Date Analyzed: 07/26/2019 14:33

Spike Duplicate ID: LCSD for HBN 1194035 [WXX12938]
 Spike Duplicate Lab ID: 1521685
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.185	93	0.2	0.183	91	(75-125)	1.30	(< 25)

Batch Information

Analytical Batch: **WDA4612**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12938**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **07/26/2019 11:19**
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1194035001
 MS Sample ID: 1521686 MS
 MSD Sample ID: 1521687 MSD

Analysis Date: 07/26/2019 16:00
 Analysis Date: 07/26/2019 16:01
 Analysis Date: 07/26/2019 16:01
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.468	1.00	1.38	91	1.00	1.36	90	75-125	0.88	(< 25)

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/26/2019 4:01:07PM

Prep Batch: WXX12938
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/26/2019 3:15:00PM
 Prep Initial Wt./Vol.: 5.00mL
 Prep Extract Vol: 25.00mL

Print Date: 08/07/2019 9:55:37AM

Method Blank

Blank ID: MB for HBN 1797295 [WXX/12946]
 Blank Lab ID: 1522813

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/31/2019 2:23:48PM

Prep Batch: WXX12946
 Prep Method: METHOD
 Prep Date/Time: 7/31/2019 1:15:00PM
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

Print Date: 08/07/2019 9:55:39AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [WXX12946]
 Blank Spike Lab ID: 1522814
 Date Analyzed: 07/31/2019 14:25

Spike Duplicate ID: LCSD for HBN 1194035 [WXX12946]
 Spike Duplicate Lab ID: 1522815
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	1.01	101	1	1.02	102	(75-125)	0.70	(< 25)

Batch Information

Analytical Batch: **WDA4616**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12946**
 Prep Method: **METHOD**
 Prep Date/Time: **07/31/2019 13:15**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Matrix Spike Summary

Original Sample ID: 1194035001
 MS Sample ID: 1522816 MS
 MSD Sample ID: 1522817 MSD

Analysis Date: 07/31/2019 14:28
 Analysis Date: 07/31/2019 14:33
 Analysis Date: 07/31/2019 14:35
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.178	1.00	1.01	83	1.00	1.30	112	75-125	24.80	(< 25)

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/31/2019 2:33:51PM

Prep Batch: WXX12946
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/31/2019 1:15:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Print Date: 08/07/2019 9:55:42AM

Method Blank

Blank ID: MB for HBN 1797500 [WXX/12954]
Blank Lab ID: 1523708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/6/2019 9:48:40AM

Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 8/5/2019 8:33:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/07/2019 9:55:44AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194035 [WXX12954]
 Blank Spike Lab ID: 1523709
 Date Analyzed: 08/06/2019 09:49

Spike Duplicate ID: LCSD for HBN 1194035 [WXX12954]
 Spike Duplicate Lab ID: 1523710
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.90	97	4	4.13	103	(75-125)	5.80	(< 25)

Batch Information

Analytical Batch: **WDA4619**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12954**
 Prep Method: **METHOD**
 Prep Date/Time: **08/05/2019 08:33**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 08/07/2019 9:55:46AM

Matrix Spike Summary

Original Sample ID: 1194035003
 MS Sample ID: 1523711 MS
 MSD Sample ID: 1523712 MSD

Analysis Date: 08/06/2019 9:55
 Analysis Date: 08/06/2019 9:56
 Analysis Date: 08/06/2019 9:57
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194035001, 1194035002, 1194035003, 1194035004, 1194035005, 1194035006, 1194035007, 1194035008, 1194035009, 1194035010

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.841J	4.00	5	104	4.00	4.61	94	75-125	8.20	(< 25)

Batch Information

Analytical Batch: WDA4619
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/6/2019 9:56:32AM

Prep Batch: WXX12954
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 8/5/2019 8:33:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 08/07/2019 9:55:47AM



1194035



SGS North America Inc. HAIN OF CUSTODY RECORD

Locations Nationwide

- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Indiana
- West Virginia
- Kentucky

www.us.sgs.com

CLIENT: Stantec

CONTACT: Jake Allward PHONE NO: 313 5202

PROJECT NAME: Wesita WTP PROJECT/PWSID/PERMIT#:

REPORTS TO: E-MAIL: Jake.allward@stantec.com

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

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

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	#	CONTAINER	Preservative						REMARKS/LOC ID	
	<u>1 AF SW1</u>	<u>7/23/19</u>	<u>9:53</u>	<u>Water</u>	<u>6</u>	<u>G</u>	<u>Water</u>	<u>BOD</u>	<u>TSS</u>	<u>FC</u>	<u>TC</u>	<u>TPH</u>		
	<u>2 AF SW2</u>		<u>10:05</u>											
	<u>3 AF SW3</u>		<u>10:19</u>											
	<u>4 AF SW4</u>		<u>11:38</u>											
	<u>5 AF SW5</u>		<u>11:48</u>											
	<u>6 AF SW6</u>		<u>12:4</u>											
	<u>7 AF SW7</u>		<u>11:5</u>											
	<u>8 AF SW8</u>		<u>13:18</u>											
	<u>9 AF SW9</u>		<u>13:05</u>											
	<u>10 AF SW10</u>		<u>12:50</u>											

Relinquished By: (1) [Signature] Date 7/23/19 Time 027 Received By:

Relinquished By: (2) Date Time Received By:

Relinquished By: (3) Date Time Received By:

Relinquished By: (4) Date 7.23.19 Time 15:27 Received For Laboratory By: [Signature]

Section 4 DOD Project? Yes No Data Deliverable Requirements:

Cooler ID: Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 6.0L D57 Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

(See attached Sample Receipt Form) (See attached Sample Receipt Form)

HD



SGS Workorder #:

1194035



1 1 9 4 0 3 5

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		<input checked="" type="checkbox"/> Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	HD
COC accompanied samples?	<input checked="" type="checkbox"/>	
DOD: Were samples received in COC corresponding coolers?	<input type="checkbox"/>	
<input type="checkbox"/> **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)?	<input checked="" type="checkbox"/>	Cooler ID: 1 @ 4.0 °C Therm. ID: D57
	<input checked="" type="checkbox"/>	Cooler ID: 2 @ 6.0 °C Therm. ID: D57
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	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?	<input checked="" type="checkbox"/>	
Do samples match COC** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/>	
**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)	<input checked="" type="checkbox"/>	
Were proper containers (type/mass/volume/preservative***) used?	<input checked="" type="checkbox"/>	***Exemption permitted for metals (e.g.200.8/6020A).
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

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1194035001-A	Na2S2O3 for Chlorine Redu	OK			
1194035001-B	Na2S2O3 for Chlorine Redu	OK			
1194035001-C	No Preservative Required	OK			
1194035001-D	No Preservative Required	OK			
1194035001-E	No Preservative Required	OK			
1194035001-F	H2SO4 to pH < 2	OK			
1194035002-A	Na2S2O3 for Chlorine Redu	OK			
1194035002-B	Na2S2O3 for Chlorine Redu	OK			
1194035002-C	No Preservative Required	OK			
1194035002-D	No Preservative Required	OK			
1194035002-E	No Preservative Required	OK			
1194035002-F	H2SO4 to pH < 2	OK			
1194035003-A	Na2S2O3 for Chlorine Redu	OK			
1194035003-B	Na2S2O3 for Chlorine Redu	OK			
1194035003-C	No Preservative Required	OK			
1194035003-D	No Preservative Required	OK			
1194035003-E	No Preservative Required	OK			
1194035003-F	H2SO4 to pH < 2	OK			
1194035004-A	Na2S2O3 for Chlorine Redu	OK			
1194035004-B	Na2S2O3 for Chlorine Redu	OK			
1194035004-C	No Preservative Required	OK			
1194035004-D	No Preservative Required	OK			
1194035004-E	No Preservative Required	OK			
1194035004-F	H2SO4 to pH < 2	OK			
1194035005-A	Na2S2O3 for Chlorine Redu	OK			
1194035005-B	Na2S2O3 for Chlorine Redu	OK			
1194035005-C	No Preservative Required	OK			
1194035005-D	No Preservative Required	OK			
1194035005-E	No Preservative Required	OK			
1194035005-F	H2SO4 to pH < 2	OK			
1194035006-A	Na2S2O3 for Chlorine Redu	OK			
1194035006-B	Na2S2O3 for Chlorine Redu	OK			
1194035006-C	No Preservative Required	OK			
1194035006-D	No Preservative Required	OK			
1194035006-E	No Preservative Required	OK			
1194035006-F	H2SO4 to pH < 2	OK			
1194035007-A	Na2S2O3 for Chlorine Redu	OK			
1194035007-B	Na2S2O3 for Chlorine Redu	OK			
1194035007-C	No Preservative Required	OK			
1194035007-D	No Preservative Required	OK			
1194035007-E	No Preservative Required	OK			
1194035007-F	H2SO4 to pH < 2	OK			
1194035008-A	Na2S2O3 for Chlorine Redu	OK			
1194035008-B	Na2S2O3 for Chlorine Redu	OK			
1194035008-C	No Preservative Required	OK			
1194035008-D	No Preservative Required	OK			
1194035008-E	No Preservative Required	OK			
1194035008-F	H2SO4 to pH < 2	OK			

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1194035009-A	Na2S2O3 for Chlorine Redu	OK			
1194035009-B	Na2S2O3 for Chlorine Redu	OK			
1194035009-C	No Preservative Required	OK			
1194035009-D	No Preservative Required	OK			
1194035009-E	No Preservative Required	OK			
1194035009-F	H2SO4 to pH < 2	OK			
1194035010-A	Na2S2O3 for Chlorine Redu	OK			
1194035010-B	Na2S2O3 for Chlorine Redu	OK			
1194035010-C	No Preservative Required	OK			
1194035010-D	No Preservative Required	OK			
1194035010-E	No Preservative Required	OK			
1194035010-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.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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

Laboratory Report of Analysis

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

Report Number: **1194084**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1194084**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1194141005DUP (1521438) DUP

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

1193920001MS (1521177) MS

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

1194084001MSD (1521175) MSD

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

1193920001MSD (1521178) MSD

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

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

Print Date: 08/08/2019 12:23:55PM

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, indemnification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW11	1194084001	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW12	1194084002	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW13	1194084003	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW14	1194084004	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW15	1194084005	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW16	1194084006	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW17	1194084007	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
SW18	1194084008	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
Shaw	1194084009	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)
Dup 1	1194084010	07/24/2019	07/24/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
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

Print Date: 08/08/2019 12:23:56PM

Detectable Results Summary

Client Sample ID: **SW11**
 Lab Sample ID: 1194084001
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.56	mg/L
E. Coli	680	MPN/100mL
Fecal Coliform	290	col/100mL
Total Coliform	1860	MPN/100mL
Ammonia-N	0.0645J	mg/L
Total Kjeldahl Nitrogen	0.370J	mg/L
Total Phosphorus	0.570	mg/L
Total Suspended Solids	85.1	mg/L

Waters Department

Client Sample ID: **SW12**
 Lab Sample ID: 1194084002
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.01	mg/L
E. Coli	20	MPN/100mL
Fecal Coliform	27	col/100mL
Total Coliform	19600	MPN/100mL
Ammonia-N	0.0428J	mg/L
Total Kjeldahl Nitrogen	1.34	mg/L
Total Phosphorus	0.286	mg/L
Total Suspended Solids	155	mg/L

Waters Department

Client Sample ID: **SW13**
 Lab Sample ID: 1194084003
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	320	MPN/100mL
Fecal Coliform	310	col/100mL
Total Coliform	2700	MPN/100mL
Ammonia-N	0.0463J	mg/L
Total Kjeldahl Nitrogen	0.341J	mg/L
Total Phosphorus	0.00750J	mg/L
Total Suspended Solids	19.3	mg/L

Waters Department

Client Sample ID: **SW14**
 Lab Sample ID: 1194084004
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.29	mg/L
E. Coli	160	MPN/100mL
Fecal Coliform	210	col/100mL
Total Coliform	3320	MPN/100mL
Ammonia-N	0.0771J	mg/L
Total Phosphorus	0.182	mg/L
Total Suspended Solids	110	mg/L

Waters Department

Detectable Results Summary

Client Sample ID: **SW15**
 Lab Sample ID: 1194084005
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	1140	MPN/100mL
Fecal Coliform	727	col/100mL
Total Coliform	15400	MPN/100mL
Ammonia-N	0.0698J	mg/L
Total Phosphorus	0.0434	mg/L
Total Suspended Solids	16.1	mg/L

Client Sample ID: **SW16**
 Lab Sample ID: 1194084006
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	5.50	mg/L
E. Coli	20	MPN/100mL
Fecal Coliform	55	col/100mL
Total Coliform	26000	MPN/100mL
Ammonia-N	0.0391J	mg/L
Total Kjeldahl Nitrogen	0.712J	mg/L
Total Phosphorus	0.143	mg/L
Total Suspended Solids	162	mg/L

Client Sample ID: **SW17**
 Lab Sample ID: 1194084007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	690	MPN/100mL
Fecal Coliform	1540	col/100mL
Total Coliform	2850	MPN/100mL
Ammonia-N	0.0395J	mg/L
Nitrate-N	2.25	mg/L
Total Kjeldahl Nitrogen	0.725J	mg/L
Total Phosphorus	0.380	mg/L
Total Suspended Solids	38.0	mg/L

Client Sample ID: **SW18**
 Lab Sample ID: 1194084008
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.16	mg/L
E. Coli	1080	MPN/100mL
Fecal Coliform	1020	col/100mL
Total Coliform	6490	MPN/100mL
Ammonia-N	0.153	mg/L
Nitrate-N	3.54	mg/L
Total Kjeldahl Nitrogen	0.712J	mg/L
Total Phosphorus	0.480	mg/L
Total Suspended Solids	15.1	mg/L

Detectable Results Summary

Client Sample ID: **Shaw**
 Lab Sample ID: 1194084009
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	272	MPN/100mL
Fecal Coliform	156	col/100mL
Total Coliform	2420	MPN/100mL
Ammonia-N	0.0378J	mg/L
Total Kjeldahl Nitrogen	0.322J	mg/L
Total Phosphorus	0.0343	mg/L
Total Suspended Solids	3.84	mg/L

Waters Department

Client Sample ID: **Dup 1**
 Lab Sample ID: 1194084010
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.42	mg/L
E. Coli	2050	MPN/100mL
Fecal Coliform	1030	col/100mL
Total Coliform	8160	MPN/100mL
Ammonia-N	0.149	mg/L
Nitrate-N	3.47	mg/L
Total Kjeldahl Nitrogen	0.792J	mg/L
Total Phosphorus	0.490	mg/L
Total Suspended Solids	14.1	mg/L

Waters Department



Results of SW11

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084001
Lab Project ID: 1194084

Collection Date: 07/24/19 09:48
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.56	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084001-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	290	10.0	10.0	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	680	20	20	MPN/100r	20		07/25/19 09:34
Total Coliform	1860	20	20	MPN/100r	20		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084001-B



Results of SW11

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084001
Lab Project ID: 1194084

Collection Date: 07/24/19 09:48
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	85.1	1.05	0.326	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084001-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.370 J	1.00	0.310	mg/L	1		08/06/19 10:10

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 10:10	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084001-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0645 J	0.100	0.0310	mg/L	1		07/31/19 14:52

Batch Information

Analytical Batch: WDA4616	Prep Batch: WXX12946
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/31/19 13:15
Analytical Date/Time: 07/31/19 14:52	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084001-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:40
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:40



Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084001
Lab Project ID: 1194084

Collection Date: 07/24/19 09:48
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2829
Analytical Method: SM21 4500NO3-F
Analyst: DMM
Analytical Date/Time: 07/25/19 11:40
Container ID: 1194084001-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.570	0.200	0.0500	mg/L	1		07/26/19 15:03

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 15:03
Container ID: 1194084001-F

Prep Batch: WXX12939
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 12:41
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW12

Client Sample ID: SW12
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194084002
Lab Project ID: 1194084

Collection Date: 07/24/19 10:15
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Biochemical Oxygen Demand, 2.01, 2.00, 2.00, mg/L, 1, 07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084002-D

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Fecal Coliform, 27, 9.09, 9.09, col/100mL, 1, 07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084002-A

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: E. Coli, 20, 20, 20, MPN/100n, 20, 07/25/19 09:34. Row 2: Total Coliform, 19600, 20, 20, MPN/100n, 20, 07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084002-B



Results of SW12

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084002
Lab Project ID: 1194084

Collection Date: 07/24/19 10:15
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	155	2.00	0.620	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.34	1.00	0.310	mg/L	1		08/06/19 10:12

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 10:12	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084002-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0428 J	0.100	0.0310	mg/L	1		07/31/19 14:53

Batch Information

Analytical Batch: WDA4616	Prep Batch: WXX12946
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/31/19 13:15
Analytical Date/Time: 07/31/19 14:53	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084002-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:45
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:45

Results of SW12

Client Sample ID: **SW12**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084002
 Lab Project ID: 1194084

Collection Date: 07/24/19 10:15
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 11:45
 Container ID: 1194084002-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.286	0.0200	0.00500	mg/L	1		07/26/19 15:04

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:04
 Container ID: 1194084002-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW13

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084003
Lab Project ID: 1194084

Collection Date: 07/24/19 10:25
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084003-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	310	10.0	10.0	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	320	20	20	MPN/100r	20		07/25/19 09:34
Total Coliform	2700	20	20	MPN/100r	20		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084003-B



Results of SW13

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084003
Lab Project ID: 1194084

Collection Date: 07/24/19 10:25
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	19.3	1.00	0.310	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.341 J	1.00	0.310	mg/L	1		08/06/19 10:13

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 10:13	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084003-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0463 J	0.100	0.0310	mg/L	1		07/31/19 14:55

Batch Information

Analytical Batch: WDA4616	Prep Batch: WXX12946
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/31/19 13:15
Analytical Date/Time: 07/31/19 14:55	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084003-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:47
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:47

Results of SW13

Client Sample ID: **SW13**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084003
 Lab Project ID: 1194084

Collection Date: 07/24/19 10:25
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 11:47
 Container ID: 1194084003-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.00750 J	0.0200	0.00500	mg/L	1		07/26/19 15:09

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:09
 Container ID: 1194084003-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW14

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084004
Lab Project ID: 1194084

Collection Date: 07/24/19 11:20
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.29	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084004-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	210	10.0	10.0	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	160	20	20	MPN/100r	20		07/25/19 09:34
Total Coliform	3320	20	20	MPN/100r	20		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084004-B



Results of SW14

Client Sample ID: SW14
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194084004
Lab Project ID: 1194084

Collection Date: 07/24/19 11:20
Received Date: 07/24/19 15:11
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	110	1.05	0.326	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084004-E

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		08/06/19 10:14

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 10:14	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084004-F	Prep Extract Vol: 25 mL

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0771 J	0.100	0.0310	mg/L	1		07/31/19 14:57

Batch Information

Analytical Batch: WDA4616	Prep Batch: WXX12946
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/31/19 13:15
Analytical Date/Time: 07/31/19 14:57	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084004-F	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		07/25/19 11:49
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:49

Results of SW14

Client Sample ID: **SW14**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084004
 Lab Project ID: 1194084

Collection Date: 07/24/19 11:20
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 11:49
 Container ID: 1194084004-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.182	0.0200	0.00500	mg/L	1		07/26/19 15:10

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:10
 Container ID: 1194084004-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW15

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084005
Lab Project ID: 1194084

Collection Date: 07/24/19 11:02
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084005-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	727	9.09	9.09	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1140	20	20	MPN/100r	20		07/25/19 09:34
Total Coliform	15400	20	20	MPN/100r	20		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084005-B



Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084005
Lab Project ID: 1194084

Collection Date: 07/24/19 11:02
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	16.1	1.01	0.313	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084005-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		08/06/19 10:16

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 10:16	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084005-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0698 J	0.100	0.0310	mg/L	1		07/31/19 14:58

Batch Information

Analytical Batch: WDA4616	Prep Batch: WXX12946
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 07/31/19 13:15
Analytical Date/Time: 07/31/19 14:58	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084005-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:51
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:51



Results of SW15

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084005
Lab Project ID: 1194084

Collection Date: 07/24/19 11:02
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
Analytical Method: SM21 4500NO3-F
Analyst: DMM
Analytical Date/Time: 07/25/19 11:51
Container ID: 1194084005-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0434	0.0200	0.00500	mg/L	1		07/26/19 15:11

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 15:11
Container ID: 1194084005-F

Prep Batch: WXX12939
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW16

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084006
Lab Project ID: 1194084

Collection Date: 07/24/19 10:43
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	5.50	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084006-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	55	9.09	9.09	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20	20	20	MPN/100r	20		07/25/19 09:34
Total Coliform	26000	20	20	MPN/100r	20		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084006-B



Results of SW16

Client Sample ID: SW16
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194084006
Lab Project ID: 1194084

Collection Date: 07/24/19 10:43
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 162, 2.00, 0.620, mg/L, 1, 07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084006-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.712 J, 1.00, 0.310, mg/L, 1, 08/06/19 11:12

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/06/19 11:12
Container ID: 1194084006-F
Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 08/05/19 08:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Ammonia-N, 0.0391 J, 0.100, 0.0310, mg/L, 1, 08/06/19 18:15

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/06/19 18:15
Container ID: 1194084006-F
Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 08/06/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows: Nitrate-N (0.100 U), Nitrite-N (0.100 U)

Results of SW16

Client Sample ID: **SW16**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084006
 Lab Project ID: 1194084

Collection Date: 07/24/19 10:43
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 11:52
 Container ID: 1194084006-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.143	0.0200	0.00500	mg/L	1		07/26/19 15:11

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:11
 Container ID: 1194084006-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW17

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084007
Lab Project ID: 1194084

Collection Date: 07/24/19 12:04
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084007-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1540	9.09	9.09	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084007-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	690	10	10	MPN/100r	10		07/25/19 09:34
Total Coliform	2850	10	10	MPN/100r	10		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084007-B



Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084007
Lab Project ID: 1194084

Collection Date: 07/24/19 12:04
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	38.0	1.02	0.316	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084007-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.725 J	1.00	0.310	mg/L	1		08/06/19 11:14

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 11:14	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084007-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0395 J	0.100	0.0310	mg/L	1		08/06/19 18:16

Batch Information

Analytical Batch: WDA4622	Prep Batch: WXX12959
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/06/19 16:30
Analytical Date/Time: 08/06/19 18:16	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084007-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	2.25	0.200	0.0500	mg/L	2		07/25/19 11:54
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 11:54

Results of SW17

Client Sample ID: **SW17**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084007
 Lab Project ID: 1194084

Collection Date: 07/24/19 12:04
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 11:54
 Container ID: 1194084007-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.380	0.0200	0.00500	mg/L	1		07/26/19 15:12

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:12
 Container ID: 1194084007-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW18

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084008
Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.16	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084008-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1020	9.09	9.09	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084008-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1080	10	10	MPN/100r	10		07/25/19 09:34
Total Coliform	6490	10	10	MPN/100r	10		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084008-B



Results of SW18

Client Sample ID: SW18
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194084008
Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	15.1	1.02	0.316	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084008-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.712 J	1.00	0.310	mg/L	1		08/06/19 11:15

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 11:15	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084008-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.153	0.100	0.0310	mg/L	1		08/06/19 18:18

Batch Information

Analytical Batch: WDA4622	Prep Batch: WXX12959
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/06/19 16:30
Analytical Date/Time: 08/06/19 18:18	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084008-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	3.54	0.200	0.0500	mg/L	2		07/25/19 12:01
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 12:01

Results of SW18

Client Sample ID: **SW18**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194084008
 Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
 Received Date: 07/24/19 15:11
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Analyst: DMM
 Analytical Date/Time: 07/25/19 12:01
 Container ID: 1194084008-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.480	0.0200	0.00500	mg/L	1		07/26/19 15:13

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 07/26/19 15:13
 Container ID: 1194084008-F

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/19 11:19
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084009
Lab Project ID: 1194084

Collection Date: 07/24/19 13:01
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084009-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	156	1.64	1.64	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084009-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	272	1	1	MPN/100r	1		07/25/19 09:34
Total Coliform	2420	1	1	MPN/100r	1		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084009-B



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084009
Lab Project ID: 1194084

Collection Date: 07/24/19 13:01
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	3.84	1.01	0.313	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084009-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.322 J	1.00	0.310	mg/L	1		08/06/19 11:16

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 11:16	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084009-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0378 J	0.100	0.0310	mg/L	1		08/06/19 18:20

Batch Information

Analytical Batch: WDA4622	Prep Batch: WXX12959
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/06/19 16:30
Analytical Date/Time: 08/06/19 18:20	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084009-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 12:03
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 12:03

Print Date: 08/08/2019 12:23:58PM

J flagging is activated



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084009
Lab Project ID: 1194084

Collection Date: 07/24/19 13:01
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
Analytical Method: SM21 4500NO3-F
Analyst: DMM
Analytical Date/Time: 07/25/19 12:03
Container ID: 1194084009-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0343	0.0200	0.00500	mg/L	1		07/26/19 15:14

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 15:14
Container ID: 1194084009-F

Prep Batch: WXX12939
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of Dup 1

Client Sample ID: **Dup 1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084010
Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.42	2.00	2.00	mg/L	1		07/25/19 12:25

Batch Information

Analytical Batch: BOD6378
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/25/19 12:25
Container ID: 1194084010-D

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1030	9.09	9.09	col/100mL	1		07/24/19 17:41

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 07/24/19 17:41
Container ID: 1194084010-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	2050	10	10	MPN/100r	10		07/25/19 09:34
Total Coliform	8160	10	10	MPN/100r	10		07/25/19 09:34

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Analyst: VDL
Analytical Date/Time: 07/25/19 09:34
Container ID: 1194084010-B



Results of Dup 1

Client Sample ID: **Dup 1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194084010
Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	14.1	1.03	0.320	mg/L	1		07/26/19 14:49

Batch Information

Analytical Batch: STS6397
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/26/19 14:49
Container ID: 1194084010-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.792 J	1.00	0.310	mg/L	1		08/06/19 11:17

Batch Information

Analytical Batch: WDA4619	Prep Batch: WXX12954
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/05/19 08:33
Analytical Date/Time: 08/06/19 11:17	Prep Initial Wt./Vol.: 25 mL
Container ID: 1194084010-F	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.149	0.100	0.0310	mg/L	1		08/06/19 18:25

Batch Information

Analytical Batch: WDA4622	Prep Batch: WXX12959
Analytical Method: SM21 4500-NH3 G	Prep Method: METHOD
Analyst: DMM	Prep Date/Time: 08/06/19 16:30
Analytical Date/Time: 08/06/19 18:25	Prep Initial Wt./Vol.: 6 mL
Container ID: 1194084010-F	Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	3.47	0.200	0.0500	mg/L	2		07/25/19 12:05
Nitrite-N	0.100 U	0.200	0.0500	mg/L	2		07/25/19 12:05



Results of Dup 1

Client Sample ID: Dup 1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194084010
Lab Project ID: 1194084

Collection Date: 07/24/19 12:22
Received Date: 07/24/19 15:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WFI2829
Analytical Method: SM21 4500NO3-F
Analyst: DMM
Analytical Date/Time: 07/25/19 12:05
Container ID: 1194084010-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.490	0.0200	0.00500	mg/L	1		07/26/19 15:15

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 07/26/19 15:15
Container ID: 1194084010-F

Prep Batch: WXX12939
Prep Method: SM21 4500P-B,E
Prep Date/Time: 07/26/19 11:19
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1796896 [BOD/6378]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1521124

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6378

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 7/25/2019 12:25:27PM

Print Date: 08/08/2019 12:24:00PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [BOD6378]

Blank Spike Lab ID: 1521125

Date Analyzed: 07/25/2019 12:25

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6378

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Print Date: 08/08/2019 12:24:01PM



Method Blank

Blank ID: MB for HBN 1796844 [BTF/17514]
Blank Lab ID: 1520913

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 7/24/2019 5:41:00PM

Print Date: 08/08/2019 12:24:02PM

Method Blank

Blank ID: MB for HBN 1796844 [BTF/17514]
Blank Lab ID: 1520915

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17514
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 7/24/2019 6:32:00PM

Print Date: 08/08/2019 12:24:02PM



Method Blank

Blank ID: MB for HBN 1796897 [BTF/17518]
Blank Lab ID: 1521126

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 9223B

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

Batch Information

Analytical Batch: BTF17518
Analytical Method: SM21 9223B
Instrument:
Analyst: VDL
Analytical Date/Time: 7/25/2019 9:34:37AM

Print Date: 08/08/2019 12:24:04PM



Method Blank

Blank ID: MB for HBN 1796959 [STS/6395]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1521437

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6397

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 7/26/2019 2:49:22PM

Print Date: 08/08/2019 12:24:05PM

Duplicate Sample Summary

Original Sample ID: 1194141005
 Duplicate Sample ID: 1521438
 QC for Samples:

Analysis Date: 07/26/2019 14:49
 Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	225	244	mg/L	8.00*	(< 5)

Batch Information

Analytical Batch: STS6397
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Print Date: 08/08/2019 12:24:06PM

Duplicate Sample Summary

Original Sample ID: 1194082001

Duplicate Sample ID: 1521441

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Analysis Date: 07/26/2019 14:49

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	65.3	68.3	mg/L	4.50	(< 5)

Batch Information

Analytical Batch: STS6397

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 08/08/2019 12:24:06PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [STS6397]
 Blank Spike Lab ID: 1521439
 Date Analyzed: 07/26/2019 14:49

Spike Duplicate ID: LCSD for HBN 1194084 [STS6397]
 Spike Duplicate Lab ID: 1521440
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	23.7	95	25	23.6	94	(75-125)	0.42	(< 5)

Batch Information

Analytical Batch: STS6397
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Print Date: 08/08/2019 12:24:07PM

Method Blank

Blank ID: MB for HBN 1796913 (WFI/2829)
Blank Lab ID: 1521215

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2829
Analytical Method: SM21 4500NO3-F
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/25/2019 11:35:28AM

Print Date: 08/08/2019 12:24:10PM

Method Blank

Blank ID: MB for HBN 1796913 (WFI/2829)
 Blank Lab ID: 1521217

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/25/2019 12:20:59PM

Print Date: 08/08/2019 12:24:10PM

Method Blank

Blank ID: MB for HBN 1796913 (WFI/2829)

Blank Lab ID: 1521219

QC for Samples:

Matrix: Water (Surface, Eff., Ground)

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: WFI2829

Analytical Method: SM21 4500NO3-F

Instrument: Discrete Analyzer 2

Analyst: DMM

Analytical Date/Time: 7/25/2019 1:59:55PM

Print Date: 08/08/2019 12:24:10PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WFI2829]

Blank Spike Lab ID: 1521214

Date Analyzed: 07/25/2019 11:33

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.58	103	(70-130)
Nitrite-N	2.5	2.54	102	(90-110)
Total Nitrate/Nitrite-N	5	5.12	102	(90-110)

Batch Information

Analytical Batch: **WFI2829**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Discrete Analyzer 2**

Analyst: **DMM**

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WFI2829]

Blank Spike Lab ID: 1521216

Date Analyzed: 07/25/2019 12:19

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.78	111	(70-130)
Nitrite-N	2.5	2.56	102	(90-110)
Total Nitrate/Nitrite-N	5	5.34	107	(90-110)

Batch Information

Analytical Batch: **WFI2829**

Analytical Method: **SM21 4500NO3-F**

Instrument: **Discrete Analyzer 2**

Analyst: **DMM**

Print Date: 08/08/2019 12:24:12PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WFI2829]
 Blank Spike Lab ID: 1521218
 Date Analyzed: 07/25/2019 13:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.60	104	(70-130)
Nitrite-N	2.5	2.51	100	(90-110)
Total Nitrate/Nitrite-N	5	5.11	102	(90-110)

Batch Information

Analytical Batch: **WFI2829**
 Analytical Method: **SM21 4500NO3-F**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Print Date: 08/08/2019 12:24:12PM

Matrix Spike Summary

Original Sample ID: 1194084001
 MS Sample ID: 1521174 MS
 MSD Sample ID: 1521175 MSD

Analysis Date: 07/25/2019 11:40
 Analysis Date: 07/25/2019 11:42
 Analysis Date: 07/25/2019 11:44
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	2.50	2.39	96	2.50	2.27	91	70-130	5.20	(< 25)
Nitrite-N	0.100U	2.50	2.44	98	2.50	2.23	89 *	90-110	9.00	(< 25)

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/25/2019 11:42:29AM

Matrix Spike Summary

Original Sample ID: 1193920001
 MS Sample ID: 1521177 MS
 MSD Sample ID: 1521178 MSD

Analysis Date: 07/25/2019 13:17
 Analysis Date: 07/25/2019 13:19
 Analysis Date: 07/25/2019 13:21
 Matrix: Drinking Water

QC for Samples: 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.200U	5.00	7.26	145 *	5.00	6.30	126 *	90-110	14.30	(< 25)

Batch Information

Analytical Batch: WFI2829
 Analytical Method: SM21 4500NO3-F
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/25/2019 1:19:39PM

Method Blank

Blank ID: MB for HBN 1797034 [WXX/12939]
Blank Lab ID: 1521688

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500P-B,E

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

Batch Information

Analytical Batch: WDA4612
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/26/2019 3:00:57PM

Prep Batch: WXX12939
Prep Method: SM21 4500P-B,E
Prep Date/Time: 7/26/2019 11:19:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/08/2019 12:24:13PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WXX12939]
 Blank Spike Lab ID: 1521689
 Date Analyzed: 07/26/2019 15:01

Spike Duplicate ID: LCSD for HBN 1194084 [WXX12939]
 Spike Duplicate Lab ID: 1521690
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.178	89	0.2	0.184	92	(75-125)	3.30	(< 25)

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM

Prep Batch: WXX12939
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 07/26/2019 11:19
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 08/08/2019 12:24:15PM

Matrix Spike Summary

Original Sample ID: 1194084002
 MS Sample ID: 1521691 MS
 MSD Sample ID: 1521692 MSD

Analysis Date: 07/26/2019 15:04
 Analysis Date: 07/26/2019 15:07
 Analysis Date: 07/26/2019 15:08
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.286	0.200	.48	97	0.200	0.436	75 *	75-125	9.50	(< 25)

Batch Information

Analytical Batch: WDA4612
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/26/2019 3:07:51PM

Prep Batch: WXX12939
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 7/26/2019 11:19:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1797295 [WXX/12946]
Blank Lab ID: 1522813

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1194084001, 1194084002, 1194084003, 1194084004, 1194084005

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4616
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/31/2019 2:23:48PM

Prep Batch: WXX12946
Prep Method: METHOD
Prep Date/Time: 7/31/2019 1:15:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 08/08/2019 12:24:17PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WXX12946]
 Blank Spike Lab ID: 1522814
 Date Analyzed: 07/31/2019 14:25

Spike Duplicate ID: LCSD for HBN 1194084 [WXX12946]
 Spike Duplicate Lab ID: 1522815
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	1.01	101	1	1.02	102	(75-125)	0.70	(< 25)

Batch Information

Analytical Batch: **WDA4616**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12946**
 Prep Method: **METHOD**
 Prep Date/Time: **07/31/2019 13:15**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Matrix Spike Summary

Original Sample ID: 1194035001
 MS Sample ID: 1522816 MS
 MSD Sample ID: 1522817 MSD

Analysis Date: 07/31/2019 14:28
 Analysis Date: 07/31/2019 14:33
 Analysis Date: 07/31/2019 14:35
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.178	1.00	1.01	83	1.00	1.30	112	75-125	24.80	(< 25)

Batch Information

Analytical Batch: WDA4616
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 7/31/2019 2:33:51PM

Prep Batch: WXX12946
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 7/31/2019 1:15:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Method Blank

Blank ID: MB for HBN 1797500 [WXX/12954]
Blank Lab ID: 1523708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4619
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/6/2019 9:48:40AM

Prep Batch: WXX12954
Prep Method: METHOD
Prep Date/Time: 8/5/2019 8:33:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/08/2019 12:24:21PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WXX12954]
 Blank Spike Lab ID: 1523709
 Date Analyzed: 08/06/2019 09:49

Spike Duplicate ID: LCSD for HBN 1194084 [WXX12954]
 Spike Duplicate Lab ID: 1523710
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.90	97	4	4.13	103	(75-125)	5.80	(< 25)

Batch Information

Analytical Batch: **WDA4619**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12954**
 Prep Method: **METHOD**
 Prep Date/Time: **08/05/2019 08:33**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 08/08/2019 12:24:23PM

Matrix Spike Summary

Original Sample ID: 1194035003
 MS Sample ID: 1523711 MS
 MSD Sample ID: 1523712 MSD

Analysis Date: 08/06/2019 9:55
 Analysis Date: 08/06/2019 9:56
 Analysis Date: 08/06/2019 9:57
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084001, 1194084002, 1194084003, 1194084004, 1194084005, 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.841J	4.00	5	104	4.00	4.61	94	75-125	8.20	(< 25)

Batch Information

Analytical Batch: WDA4619
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/6/2019 9:56:32AM

Prep Batch: WXX12954
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 8/5/2019 8:33:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 08/08/2019 12:24:24PM

Method Blank

Blank ID: MB for HBN 1797573 [WXX/12959]
 Blank Lab ID: 1524031

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/6/2019 6:05:10PM

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 8/6/2019 4:30:00PM
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

Print Date: 08/08/2019 12:24:25PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194084 [WXX12959]
 Blank Spike Lab ID: 1524032
 Date Analyzed: 08/06/2019 18:06

Spike Duplicate ID: LCSD for HBN 1194084 [WXX12959]
 Spike Duplicate Lab ID: 1524033
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.972	97	1	0.996	100	(75-125)	2.50	(< 25)

Batch Information

Analytical Batch: **WDA4622**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12959**
 Prep Method: **METHOD**
 Prep Date/Time: **08/06/2019 16:30**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL



Matrix Spike Summary

Original Sample ID: 1194281009
MS Sample ID: 1524034 MS
MSD Sample ID: 1524035 MSD

Analysis Date: 08/06/2019 18:10
Analysis Date: 08/06/2019 18:11
Analysis Date: 08/06/2019 18:13
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194084006, 1194084007, 1194084008, 1194084009, 1194084010

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.0500U	1.00	.986	99	1.00	1.01	101	75-125	2.70	(< 25)

Batch Information

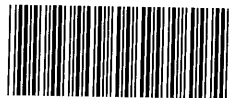
Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/6/2019 6:11:54PM

Prep Batch: WXX12959
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 8/6/2019 4:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 08/08/2019 12:24:28PM



1194084



SGS North America Inc. IAIN OF CUSTODY RECORD

Locations Nationwide
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New Jersey New York
North Carolina Indiana
West Virginia Kentucky
www.us.sgs.com

Form with sections 1-5. Section 1: CLIENT: Stantec, CONTACT: Jake Alward, PROJECT: Wastilla WWTP. Section 2: Table with columns for SAMPLE IDENTIFICATION, DATE, TIME, MATRIX/MATRIX CODE, CONTAINER, Type, Preservative, and REMARKS/LOC ID. Section 3: CONTAINER details. Section 4: Relinquished/Received by, Date, Time, Received By. Section 5: Relinquished/Received by, Date, Time, Received For Laboratory By, Temp Blank, Chain of Custody Seal.



e-Sample Receipt Form

SGS Workorder #:

1194084



1 1 9 4 0 8 4

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?				
Yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required				
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID:	1	@ 5.2 °C Therm. ID: D50
	N/A	Cooler ID:	2	@ 11.2 °C Therm. ID: D50
		Cooler ID:		@ °C Therm. ID:
		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	
Were proper containers (type/mass/volume/preservative***) used?			Yes	***Exemption permitted for metals (e.g, 200.8/6020A).
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

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1194084001-A	Na2S2O3 for Chlorine Redu	OK			
1194084001-B	Na2S2O3 for Chlorine Redu	OK			
1194084001-C	No Preservative Required	OK			
1194084001-D	No Preservative Required	OK			
1194084001-E	No Preservative Required	OK			
1194084001-F	H2SO4 to pH < 2	OK			
1194084002-A	Na2S2O3 for Chlorine Redu	OK			
1194084002-B	Na2S2O3 for Chlorine Redu	OK			
1194084002-C	No Preservative Required	OK			
1194084002-D	No Preservative Required	OK			
1194084002-E	No Preservative Required	OK			
1194084002-F	H2SO4 to pH < 2	OK			
1194084003-A	Na2S2O3 for Chlorine Redu	OK			
1194084003-B	Na2S2O3 for Chlorine Redu	OK			
1194084003-C	No Preservative Required	OK			
1194084003-D	No Preservative Required	OK			
1194084003-E	No Preservative Required	OK			
1194084003-F	H2SO4 to pH < 2	OK			
1194084004-A	Na2S2O3 for Chlorine Redu	OK			
1194084004-B	Na2S2O3 for Chlorine Redu	OK			
1194084004-C	No Preservative Required	OK			
1194084004-D	No Preservative Required	OK			
1194084004-E	No Preservative Required	OK			
1194084004-F	H2SO4 to pH < 2	OK			
1194084005-A	Na2S2O3 for Chlorine Redu	OK			
1194084005-B	Na2S2O3 for Chlorine Redu	OK			
1194084005-C	No Preservative Required	OK			
1194084005-D	No Preservative Required	OK			
1194084005-E	No Preservative Required	OK			
1194084005-F	H2SO4 to pH < 2	OK			
1194084006-A	Na2S2O3 for Chlorine Redu	OK			
1194084006-B	Na2S2O3 for Chlorine Redu	OK			
1194084006-C	No Preservative Required	OK			
1194084006-D	No Preservative Required	OK			
1194084006-E	No Preservative Required	OK			
1194084006-F	H2SO4 to pH < 2	OK			
1194084007-A	Na2S2O3 for Chlorine Redu	OK			
1194084007-B	Na2S2O3 for Chlorine Redu	OK			
1194084007-C	No Preservative Required	OK			
1194084007-D	No Preservative Required	OK			
1194084007-E	No Preservative Required	OK			
1194084007-F	H2SO4 to pH < 2	OK			
1194084008-A	Na2S2O3 for Chlorine Redu	OK			
1194084008-B	Na2S2O3 for Chlorine Redu	OK			
1194084008-C	No Preservative Required	OK			
1194084008-D	No Preservative Required	OK			
1194084008-E	No Preservative Required	OK			
1194084008-F	H2SO4 to pH < 2	OK			

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1194084009-A	Na2S2O3 for Chlorine Redu	OK			
1194084009-B	Na2S2O3 for Chlorine Redu	OK			
1194084009-C	No Preservative Required	OK			
1194084009-D	No Preservative Required	OK			
1194084009-E	No Preservative Required	OK			
1194084009-F	H2SO4 to pH < 2	OK			
1194084010-A	Na2S2O3 for Chlorine Redu	OK			
1194084010-B	Na2S2O3 for Chlorine Redu	OK			
1194084010-C	No Preservative Required	OK			
1194084010-D	No Preservative Required	OK			
1194084010-E	No Preservative Required	OK			
1194084010-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.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

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

Laboratory Report of Analysis

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

Report Number: **1194281**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1194281**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW2 (1194281002) PS

9223 – Quanti-Tray - Sample was also analyzed undiluted and showed 1 colony of E.coli present.

SW7 (1194281007) PS

9223 – Quanti-Tray - Sample was also analyzed undiluted and showed 3 colonies of E.coli present.

1194281001(1523535MS) (1523538) MS

300.0 - Anions - MS recovery for Chloride is outside of QC criteria. Refer to LCS for accuracy requirements.

1194281001(1523535MSD) (1523539) MSD

300.0 - Anions - MSD recoveries for Fluoride, Chloride, and Bromide 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.

Print Date: 08/15/2019 12:17:23PM

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, indemnification and jurisdiction issues defined therein.

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

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

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW1	1194281001	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW2	1194281002	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW3	1194281003	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW4	1194281004	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW5	1194281005	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW6	1194281006	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SW7	1194281007	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
SHAW	1194281008	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
MW2	1194281009	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)
MW15	1194281010	07/31/2019	07/31/2019	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic 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

Print Date: 08/15/2019 12:17:26PM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1194281001
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.51	mg/L
E. Coli	179	MPN/100mL
Fecal Coliform	73	col/100mL
Total Coliform	1203	MPN/100mL
Ammonia-N	0.0534J	mg/L
Total Kjeldahl Nitrogen	1.19	mg/L
Total Phosphorus	0.118	mg/L
Total Suspended Solids	74.6	mg/L

Waters Department

Client Sample ID: **SW2**
 Lab Sample ID: 1194281002
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.46	mg/L
Fecal Coliform	12	col/100mL
Total Coliform	9220	MPN/100mL
Ammonia-N	0.0610J	mg/L
Total Kjeldahl Nitrogen	1.06	mg/L
Total Phosphorus	0.0922	mg/L
Total Suspended Solids	55.0	mg/L

Waters Department

Client Sample ID: **SW3**
 Lab Sample ID: 1194281003
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.14	mg/L
E. Coli	700	MPN/100mL
Fecal Coliform	35	col/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0638J	mg/L
Nitrate-N	5.24	mg/L
Nitrite-N	0.0540J	mg/L
Total Kjeldahl Nitrogen	0.954J	mg/L
Total Nitrate/Nitrite-N	5.29	mg/L
Total Phosphorus	0.0216	mg/L
Total Suspended Solids	31.1	mg/L

Waters Department

Client Sample ID: **SW4**
 Lab Sample ID: 1194281004
Microbiology Laboratory

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.75	mg/L
E. Coli	3	MPN/100mL
Fecal Coliform	10	col/100mL
Total Coliform	1120	MPN/100mL
Ammonia-N	0.0314J	mg/L
Total Kjeldahl Nitrogen	0.532J	mg/L
Total Phosphorus	0.0173J	mg/L
Total Suspended Solids	8.99	mg/L

Waters Department

Detectable Results Summary

Client Sample ID: **SW5**
 Lab Sample ID: 1194281005
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	6.15	mg/L
Total Coliform	345	MPN/100mL
Ammonia-N	0.0876J	mg/L
Total Kjeldahl Nitrogen	0.870J	mg/L
Total Phosphorus	0.0526	mg/L
Total Suspended Solids	64.8	mg/L

Client Sample ID: **SW6**
 Lab Sample ID: 1194281006
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.67	mg/L
E. Coli	61	MPN/100mL
Fecal Coliform	90	col/100mL
Total Coliform	1203	MPN/100mL
Ammonia-N	0.0481J	mg/L
Total Kjeldahl Nitrogen	0.689J	mg/L
Total Phosphorus	0.0262	mg/L
Total Suspended Solids	35.5	mg/L

Client Sample ID: **SW7**
 Lab Sample ID: 1194281007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	6.7	col/100mL
Total Coliform	2500	MPN/100mL
Total Kjeldahl Nitrogen	0.411J	mg/L
Total Phosphorus	0.0273	mg/L
Total Suspended Solids	28.9	mg/L

Client Sample ID: **SHAW**
 Lab Sample ID: 1194281008
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	25	MPN/100mL
Fecal Coliform	54	col/100mL
Total Coliform	1733	MPN/100mL
Ammonia-N	0.0583J	mg/L
Total Kjeldahl Nitrogen	0.882J	mg/L
Total Phosphorus	0.173	mg/L
Total Suspended Solids	39.4	mg/L

Client Sample ID: **MW15**
 Lab Sample ID: 1194281010
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.273	mg/L
Total Kjeldahl Nitrogen	0.317J	mg/L



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281001
Lab Project ID: 1194281

Collection Date: 07/31/19 09:47
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.51	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281001-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	73	9.09	9.09	col/100mL	1		07/31/19 17:39

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 17:39
Container ID: 1194281001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	179	1	1	MPN/100r	1		08/01/19 12:53
Total Coliform	1203	1	1	MPN/100r	1		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281001-B



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281001
Lab Project ID: 1194281

Collection Date: 07/31/19 09:47
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 13:19
Container ID: 1194281001-C
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281001-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:14
Container ID: 1194281001-D
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW1

Client Sample ID: **SW1**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281001
 Lab Project ID: 1194281

Collection Date: 07/31/19 09:47
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:31
 Container ID: 1194281001-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.118	0.0200	0.00500	mg/L	1		08/10/19 10:01

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:01
 Container ID: 1194281001-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW2

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281002
Lab Project ID: 1194281

Collection Date: 07/31/19 10:11
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.46	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	12	2.00	2.00	col/100mL	1		07/31/19 17:39

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 17:39
Container ID: 1194281002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	20 U	20	20	MPN/100r	20		08/01/19 12:53
Total Coliform	9220	20	20	MPN/100r	20		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281002-B



Results of SW2

Client Sample ID: SW2
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281002
Lab Project ID: 1194281

Collection Date: 07/31/19 10:11
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 14:16
Container ID: 1194281002-C
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281002-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:15
Container ID: 1194281002-D
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW2

Client Sample ID: **SW2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281002
 Lab Project ID: 1194281

Collection Date: 07/31/19 10:11
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:33
 Container ID: 1194281002-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0922	0.0200	0.00500	mg/L	1		08/10/19 10:02

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:02
 Container ID: 1194281002-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281003
Lab Project ID: 1194281

Collection Date: 07/31/19 10:26
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.14	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	35	1.67	1.67	col/100mL	1		07/31/19 17:39

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 17:39
Container ID: 1194281003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	700	20	20	MPN/100r	20		08/01/19 12:53
Total Coliform	>2420	20	20	MPN/100r	20		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281003-B



Results of SW3

Client Sample ID: SW3
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281003
Lab Project ID: 1194281

Collection Date: 07/31/19 10:26
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 14:35
Container ID: 1194281003-C
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281003-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:17
Container ID: 1194281003-D
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW3

Client Sample ID: **SW3**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281003
 Lab Project ID: 1194281

Collection Date: 07/31/19 10:26
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:35
 Container ID: 1194281003-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0216	0.0200	0.00500	mg/L	1		08/10/19 10:03

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:03
 Container ID: 1194281003-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW4

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281004
Lab Project ID: 1194281

Collection Date: 07/31/19 11:46
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.75	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281004-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	10	10.0	10.0	col/100mL	1		07/31/19 17:39

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 17:39
Container ID: 1194281004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	3	1	1	MPN/100r	1		08/01/19 12:53
Total Coliform	1120	1	1	MPN/100r	1		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281004-B



Results of SW4

Client Sample ID: **SW4**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281004
 Lab Project ID: 1194281

Collection Date: 07/31/19 11:46
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 14:54
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 14:54
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 14:54

Batch Information

Analytical Batch: WIC5943
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 08/01/19 14:54
 Container ID: 1194281004-C

Prep Batch: WXX12951
 Prep Method: METHOD
 Prep Date/Time: 08/01/19 10:15
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	8.99	1.01	0.313	mg/L	1		08/05/19 15:31

Batch Information

Analytical Batch: STS6412
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 08/05/19 15:31
 Container ID: 1194281004-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.532 J	1.00	0.310	mg/L	1		08/13/19 17:18

Batch Information

Analytical Batch: WDA4626
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 08/13/19 17:18
 Container ID: 1194281004-D

Prep Batch: WXX12967
 Prep Method: METHOD
 Prep Date/Time: 08/13/19 11:15
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0314 J	0.100	0.0310	mg/L	1		08/06/19 18:36

Results of SW4

Client Sample ID: **SW4**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281004
 Lab Project ID: 1194281

Collection Date: 07/31/19 11:46
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:36
 Container ID: 1194281004-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0173 J	0.0200	0.00500	mg/L	1		08/10/19 10:04

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:04
 Container ID: 1194281004-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 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: 1194281005
Lab Project ID: 1194281

Collection Date: 07/31/19 12:05
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.15	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281005-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 18:13
Container ID: 1194281005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1 U	1	1	MPN/100r	1		08/01/19 12:53
Total Coliform	345	1	1	MPN/100r	1		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281005-B



Results of SW5

Client Sample ID: SW5
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281005
Lab Project ID: 1194281

Collection Date: 07/31/19 12:05
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 15:51
Container ID: 1194281005-C
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281005-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:22
Container ID: 1194281005-D
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281005
Lab Project ID: 1194281

Collection Date: 07/31/19 12:05
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/06/19 18:38
Container ID: 1194281005-D

Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 08/06/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0526	0.0200	0.00500	mg/L	1		08/10/19 10:05

Batch Information

Analytical Batch: WDA4625
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/10/19 10:05
Container ID: 1194281005-D

Prep Batch: WXX12965
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/09/19 12:02
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW6

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281006
Lab Project ID: 1194281

Collection Date: 07/31/19 11:30
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.67	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281006-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	90	2.00	2.00	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 18:13
Container ID: 1194281006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	61	1	1	MPN/100r	1		08/01/19 12:53
Total Coliform	1203	1	1	MPN/100r	1		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281006-B



Results of SW6

Client Sample ID: SW6
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281006
Lab Project ID: 1194281

Collection Date: 07/31/19 11:30
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 16:11
Container ID: 1194281006-C
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281006-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:23
Container ID: 1194281006-D
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW6

Client Sample ID: **SW6**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281006
 Lab Project ID: 1194281

Collection Date: 07/31/19 11:30
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:40
 Container ID: 1194281006-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0262	0.0200	0.00500	mg/L	1		08/10/19 10:06

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:06
 Container ID: 1194281006-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW7

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281007
Lab Project ID: 1194281

Collection Date: 07/31/19 11:15
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281007-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	6.7	1.67	1.67	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 18:13
Container ID: 1194281007-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	100 U	100	100	MPN/100r	100		08/01/19 12:53
Total Coliform	2500	100	100	MPN/100r	100		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281007-B



Results of SW7

Client Sample ID: SW7
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281007
Lab Project ID: 1194281

Collection Date: 07/31/19 11:15
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 16:29
Container ID: 1194281007-C

Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281007-F

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:24
Container ID: 1194281007-D

Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Results of SW7

Client Sample ID: **SW7**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281007
 Lab Project ID: 1194281

Collection Date: 07/31/19 11:15
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 08/06/19 18:45
 Container ID: 1194281007-D

Prep Batch: WXX12959
 Prep Method: METHOD
 Prep Date/Time: 08/06/19 16:30
 Prep Initial Wt./Vol.: 6 mL
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0273	0.0200	0.00500	mg/L	1		08/10/19 10:07

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 08/10/19 10:07
 Container ID: 1194281007-D

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 08/09/19 12:02
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281008
Lab Project ID: 1194281

Collection Date: 07/31/19 13:04
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		08/01/19 13:36

Batch Information

Analytical Batch: BOD6389
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/19 13:36
Container ID: 1194281008-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	54	2.00	2.00	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 18:13
Container ID: 1194281008-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	25	1	1	MPN/100r	1		08/01/19 12:53
Total Coliform	1733	1	1	MPN/100r	1		08/01/19 12:53

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 08/01/19 12:53
Container ID: 1194281008-B



Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281008
Lab Project ID: 1194281

Collection Date: 07/31/19 13:04
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 16:48
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 16:48
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 16:48

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 16:48
Container ID: 1194281008-C

Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	39.4	1.00	0.310	mg/L	1		08/05/19 15:31

Batch Information

Analytical Batch: STS6412
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/05/19 15:31
Container ID: 1194281008-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.882 J	1.00	0.310	mg/L	1		08/13/19 17:26

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:26
Container ID: 1194281008-D

Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0583 J	0.100	0.0310	mg/L	1		08/06/19 18:46



Results of **SHAW**

Client Sample ID: **SHAW**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281008
Lab Project ID: 1194281

Collection Date: 07/31/19 13:04
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/06/19 18:46
Container ID: 1194281008-D

Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 08/06/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.173	0.0200	0.00500	mg/L	1		08/10/19 10:08

Batch Information

Analytical Batch: WDA4625
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/10/19 10:08
Container ID: 1194281008-D

Prep Batch: WXX12965
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/09/19 12:02
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of MW2

Client Sample ID: **MW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281009
Lab Project ID: 1194281

Collection Date: 07/31/19 15:01
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/31/19 18:13
Container ID: 1194281009-A



Results of MW2

Client Sample ID: MW2
Client Project ID: Wasilla WWTP
Lab Sample ID: 1194281009
Lab Project ID: 1194281

Collection Date: 07/31/19 15:01
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 17:07
Container ID: 1194281009-B
Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:10
Container ID: 1194281009-C
Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/06/19 18:10
Container ID: 1194281009-C
Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 08/06/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of MW15

Client Sample ID: **MW15**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1194281010
 Lab Project ID: 1194281

Collection Date: 07/31/19 15:19
 Received Date: 07/31/19 17:00
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.64 U	1.64	1.64	col/100mL	1		07/31/19 18:13

Batch Information

Analytical Batch: BTF17530
 Analytical Method: SM21 9222D
 Analyst: VDL
 Analytical Date/Time: 07/31/19 18:13
 Container ID: 1194281010-A



Results of MW15

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1194281010
Lab Project ID: 1194281

Collection Date: 07/31/19 15:19
Received Date: 07/31/19 17:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 17:26
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 17:26
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		08/01/19 17:26

Batch Information

Analytical Batch: WIC5943
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 08/01/19 17:26
Container ID: 1194281010-B

Prep Batch: WXX12951
Prep Method: METHOD
Prep Date/Time: 08/01/19 10:15
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.317 J	1.00	0.310	mg/L	1		08/13/19 17:27

Batch Information

Analytical Batch: WDA4626
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/13/19 17:27
Container ID: 1194281010-C

Prep Batch: WXX12967
Prep Method: METHOD
Prep Date/Time: 08/13/19 11:15
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.273	0.100	0.0310	mg/L	1		08/06/19 18:50

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/06/19 18:50
Container ID: 1194281010-C

Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 08/06/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Method Blank

Blank ID: MB for HBN 1797292 [BOD/6389]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1522807

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 5210B

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

Batch Information

Analytical Batch: BOD6389

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 8/1/2019 1:36:37PM

Print Date: 08/15/2019 12:17:33PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [BOD6389]

Blank Spike Lab ID: 1522808

Date Analyzed: 08/01/2019 13:36

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 5210B

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

Batch Information

Analytical Batch: **BOD6389**
 Analytical Method: **SM21 5210B**
 Instrument:
 Analyst: **A.L**

Print Date: 08/15/2019 12:17:35PM



Method Blank

Blank ID: MB for HBN 1797246 [BTF/17530]
Blank Lab ID: 1522650

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1194281001, 1194281002, 1194281003, 1194281004

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/31/2019 5:39:24PM

Print Date: 08/15/2019 12:17:37PM

Method Blank

Blank ID: MB for HBN 1797246 [BTF/17530]
Blank Lab ID: 1522651

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 9222D

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

Batch Information

Analytical Batch: BTF17530
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/31/2019 6:13:24PM

Print Date: 08/15/2019 12:17:37PM

Method Blank

Blank ID: MB for HBN 1797302 [BTF/17536]
Blank Lab ID: 1522837

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 9223B

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

Batch Information

Analytical Batch: BTF17536
Analytical Method: SM21 9223B
Instrument:
Analyst: NRO
Analytical Date/Time: 8/1/2019 12:53:11PM

Print Date: 08/15/2019 12:17:40PM

Method Blank

Blank ID: MB for HBN 1797427 [STS/6412]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1523351

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 2540D

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

Batch Information

Analytical Batch: STS6412

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 8/5/2019 3:31:15PM

Print Date: 08/15/2019 12:17:43PM

Duplicate Sample Summary

Original Sample ID: 1199589001

Analysis Date: 08/05/2019 15:31

Duplicate Sample ID: 1523354

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	142	144	mg/L	1.40	(< 5)

Batch Information

Analytical Batch: STS6412

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 08/15/2019 12:17:44PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [STS6412]
 Blank Spike Lab ID: 1523352
 Date Analyzed: 08/05/2019 15:31

Spike Duplicate ID: LCSD for HBN 1194281 [STS6412]
 Spike Duplicate Lab ID: 1523353
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	25	23.8	95	25	24.3	97	(75-125)	2.10	(< 5)

Batch Information

Analytical Batch: STS6412
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Method Blank

Blank ID: MB for HBN 1797473 [WXX/12951]
 Blank Lab ID: 1523536

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by EPA 300.0

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

Batch Information

Analytical Batch: WIC5943
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 8/1/2019 12:22:52PM

Prep Batch: WXX12951
 Prep Method: METHOD
 Prep Date/Time: 8/1/2019 10:15:00AM
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

Print Date: 08/15/2019 12:17:47PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [WXX12951]
 Blank Spike Lab ID: 1523537
 Date Analyzed: 08/01/2019 12:41

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007,
 1194281008, 1194281009, 1194281010

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	4.78	96	(90-110)
Nitrite-N	5	5.05	101	(90-110)
Total Nitrate/Nitrite-N	10	9.83	98	(90-110)

Batch Information

Analytical Batch: **WIC5943**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12951**
 Prep Method: **METHOD**
 Prep Date/Time: **08/01/2019 10:15**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 1523535
 MS Sample ID: 1523538 MS
 MSD Sample ID: 1523539 MSD

Analysis Date: 08/01/2019 13:19
 Analysis Date: 08/01/2019 13:38
 Analysis Date: 08/01/2019 13:57
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.100U	5.00	4.62	92	5.00	4.53	91	90-110	2.10	(< 15)
Nitrite-N	0.100U	5.00	4.85	97	5.00	4.73	95	90-110	2.50	(< 15)

Batch Information

Analytical Batch: WIC5943
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 8/1/2019 1:38:56PM

Prep Batch: WXX12951
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 8/1/2019 10:15:00AM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 08/15/2019 12:17:51PM

Method Blank

Blank ID: MB for HBN 1797573 [WXX/12959]
Blank Lab ID: 1524031

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-NH3 G

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

Batch Information

Analytical Batch: WDA4622
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/6/2019 6:05:10PM

Prep Batch: WXX12959
Prep Method: METHOD
Prep Date/Time: 8/6/2019 4:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 08/15/2019 12:17:52PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [WXX12959]
 Blank Spike Lab ID: 1524032
 Date Analyzed: 08/06/2019 18:06

Spike Duplicate ID: LCSD for HBN 1194281 [WXX12959]
 Spike Duplicate Lab ID: 1524033
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.972	97	1	0.996	100	(75-125)	2.50	(< 25)

Batch Information

Analytical Batch: **WDA4622**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12959**
 Prep Method: **METHOD**
 Prep Date/Time: **08/06/2019 16:30**
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Matrix Spike Summary

Original Sample ID: 1194281009
 MS Sample ID: 1524034 MS
 MSD Sample ID: 1524035 MSD

Analysis Date: 08/06/2019 18:10
 Analysis Date: 08/06/2019 18:11
 Analysis Date: 08/06/2019 18:13
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	0.0500U	1.00	.986	99	1.00	1.01	101	75-125	2.70	(< 25)

Batch Information

Analytical Batch: WDA4622
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/6/2019 6:11:54PM

Prep Batch: WXX12959
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 8/6/2019 4:30:00PM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Print Date: 08/15/2019 12:17:55PM

Method Blank

Blank ID: MB for HBN 1797823 [WXX/12965]
 Blank Lab ID: 1525029

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.00640J	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/10/2019 9:49:49AM

Prep Batch: WXX12965
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 8/9/2019 12:02:00PM
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

Print Date: 08/15/2019 12:17:56PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [WXX12965]
 Blank Spike Lab ID: 1525030
 Date Analyzed: 08/10/2019 09:50

Spike Duplicate ID: LCSD for HBN 1194281 [WXX12965]
 Spike Duplicate Lab ID: 1525031
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.193	97	0.2	0.182	91	(75-125)	6.10	(< 25)

Batch Information

Analytical Batch: **WDA4625**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12965**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **08/09/2019 12:02**
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 08/15/2019 12:17:57PM

Matrix Spike Summary

Original Sample ID: 1194182001
 MS Sample ID: 1525032 MS
 MSD Sample ID: 1525033 MSD

Analysis Date: 08/10/2019 9:52
 Analysis Date: 08/10/2019 9:53
 Analysis Date: 08/10/2019 9:54
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008

Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.0200U	0.200	.185	93	0.200	0.181	90	75-125	2.60	(< 25)

Batch Information

Analytical Batch: WDA4625
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/10/2019 9:53:41AM

Prep Batch: WXX12965
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 8/9/2019 12:02:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1797923 [WXX/12967]
 Blank Lab ID: 1525461

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-N D

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

Batch Information

Analytical Batch: WDA4626
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/13/2019 5:06:33PM

Prep Batch: WXX12967
 Prep Method: METHOD
 Prep Date/Time: 8/13/2019 11:15:00AM
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

Print Date: 08/15/2019 12:18:00PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194281 [WXX12967]
 Blank Spike Lab ID: 1525462
 Date Analyzed: 08/13/2019 17:07

Spike Duplicate ID: LCSD for HBN 1194281 [WXX12967]
 Spike Duplicate Lab ID: 1525463
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.58	90	4	3.55	89	(75-125)	0.90	(< 25)

Batch Information

Analytical Batch: **WDA4626**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12967**
 Prep Method: **METHOD**
 Prep Date/Time: **08/13/2019 11:15**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 08/15/2019 12:18:01PM

Matrix Spike Summary

Original Sample ID: 1194281009
 MS Sample ID: 1525464 MS
 MSD Sample ID: 1525465 MSD

Analysis Date: 08/13/2019 17:10
 Analysis Date: 08/13/2019 17:11
 Analysis Date: 08/13/2019 17:13
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1194281001, 1194281002, 1194281003, 1194281004, 1194281005, 1194281006, 1194281007, 1194281008, 1194281009, 1194281010

Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.500U	4.00	3.78	95	4.00	4.16	104	75-125	9.60	(< 25)

Batch Information

Analytical Batch: WDA4626
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 8/13/2019 5:11:49PM

Prep Batch: WXX12967
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 8/13/2019 11:15:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 08/15/2019 12:18:02PM

1194281

SGS North America Inc.
CHAIN OF CUSTODY RECORD



Locations Nationwide
Alaska
Maryland
New Jersey
North Carolina
West Virginia
Indiana
Kentucky

www.us.sgs.com

CLIENT: **Stantec**
 CONTACT: **JAKE ALWARD**
 PROJECT NAME: **Wasilla WWTP**
 REPORTS TO:
 INVOICE TO:

PHONE NO: **1-907-223-7562**
 PROJECT PWSID/ PERMIT#: **209700415**
 E-MAIL: **JAKE.ALWARD@stantec.com**
 QUOTE #:
 P.O. #:

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

Section 3

#	CONTAINERS	Type C = COMP G = GRAB M = Multi Incr- mental Soils	Section 3				Section 4				REMARKS/ LOC ID
			TSS	BOD	FC	TC Reagent K/100	Nitrate/ Nitrite	TKN/ TP Ammonia	TKN/ TP Ammonia		
1	DAE SW1	Grab	✓	✓	✓	✓	✓	✓	✓		
2	DAF SW2	G	✓	✓	✓	✓	✓	✓	✓		
3	DAF SW3	G	✓	✓	✓	✓	✓	✓	✓		
4	DAF SW4	G	✓	✓	✓	✓	✓	✓	✓		
5	DAF SW5	G	✓	✓	✓	✓	✓	✓	✓		
6	DAF SW6	G	✓	✓	✓	✓	✓	✓	✓		
7	DAF SW7	G	✓	✓	✓	✓	✓	✓	✓		
8	DAF SHAW3	G	✓	✓	✓	✓	✓	✓	✓		
9	AC MW2	G	✓	✓	✓	✓	✓	✓	✓		
10	AC MW15	G	✓	✓	✓	✓	✓	✓	✓		

Section 4

Section 5

Relinquished By: (1) _____ Date _____ Time _____ Received By: _____

Relinquished By: (2) _____ Date _____ Time _____ Received By: _____

Relinquished By: (3) _____ Date _____ Time _____ Received By: _____

Relinquished By: (4) _____ Date **7/31/19** Time **17:00** Received For Laboratory By: **[Signature]**

Temp Blank °C: **T1: 5.6 C** or Ambient []
 Chain of Custody Seal: (Circle) **ABSENT**
 (See attached Sample Receipt Form) (See attached Sample Receipt Form)

Requested Turnaround Time and/or Special Instructions:
 Cooler ID:
 Data Deliverable Requirements:

Page ___ of ___

[] 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

T2: 7.17 C DT0

HO

F083-Kit_Request_and_CO_C_Templates-Blank
 Revised 2013-03-24



e-Sample Receipt Form

SGS Workorder #:

1194281



1 1 9 4 2 8 1

Review Criteria		Condition (Yes, No, N/A)	Exceptions Noted below	
Chain of Custody / Temperature Requirements			<input checked="" type="checkbox"/> Yes	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A			HD
COC accompanied samples?	<input checked="" type="checkbox"/> Yes			
DOD: Were samples received in COC corresponding coolers?	<input type="checkbox"/>			
<input type="checkbox"/> **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)?	<input checked="" type="checkbox"/> Yes	Cooler ID:	1	@ 5.4 °C Therm. ID: D58
	<input checked="" type="checkbox"/> Yes	Cooler ID:	2	@ 3.7 °C Therm. ID: D50
	<input type="checkbox"/>	Cooler ID:		@ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID:		@ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID:		@ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?		<input type="checkbox"/> N/A		
If <0°C, were sample containers ice free?		<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes			
Do samples match COC** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> 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)	<input checked="" type="checkbox"/> Yes			
Were proper containers (type/mass/volume/preservative***) used?	<input checked="" type="checkbox"/> Yes			***Exemption permitted for metals (e.g,200.8/6020A).
Volatile / LL-Hg Requirements				
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A			
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A			
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A			
Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.				
Additional notes (if applicable):				