

Laboratory Report of Analysis

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

Report Number: **1192631**

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: **1192631**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1192643002DUP (1509684) DUP

2540D - Solids - Sample duplicate RPD was outside of acceptance limits. Associated LCS / LCSD meets RPD criteria.

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

Print Date: 06/12/2019 8:55:16AM

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). 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	1192631001	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW2	1192631002	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW3	1192631003	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW4	1192631004	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW5	1192631005	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW6	1192631006	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW7	1192631007	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW8	1192631008	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW9	1192631009	05/28/2019	05/28/2019	Water (Surface, Eff., Ground)
SW10	1192631010	05/28/2019	05/28/2019	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: 06/12/2019 8:55:19AM

Detectable Results Summary

Client Sample ID: **SW1**
 Lab Sample ID: 1192631001
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.61	mg/L
Fecal Coliform	1.0	col/100mL
Total Coliform	260	MPN/100mL
Ammonia-N	0.0985J	mg/L
Total Kjeldahl Nitrogen	0.735J	mg/L
Total Phosphorus	0.0610	mg/L
Total Suspended Solids	3.51	mg/L

Client Sample ID: **SW2**
 Lab Sample ID: 1192631002
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.70	mg/L
E. Coli	5	MPN/100mL
Fecal Coliform	3.0	col/100mL
Total Coliform	GT 2420	MPN/100mL
Ammonia-N	0.0600J	mg/L
Total Kjeldahl Nitrogen	0.898J	mg/L
Total Phosphorus	0.0771	mg/L
Total Suspended Solids	7.20	mg/L

Client Sample ID: **SW3**
 Lab Sample ID: 1192631003
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	1.0	col/100mL
Total Coliform	261	MPN/100mL
Ammonia-N	0.0424J	mg/L
Total Kjeldahl Nitrogen	0.444J	mg/L
Total Phosphorus	0.0218	mg/L

Client Sample ID: **SW4**
 Lab Sample ID: 1192631004
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	649	MPN/100mL
Ammonia-N	0.0989J	mg/L
Total Kjeldahl Nitrogen	0.584J	mg/L
Total Phosphorus	0.00580J	mg/L

Client Sample ID: **SW5**
 Lab Sample ID: 1192631005
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.24	mg/L
Total Coliform	308	MPN/100mL
Ammonia-N	0.0371J	mg/L
Total Kjeldahl Nitrogen	0.509J	mg/L
Total Phosphorus	0.00710J	mg/L
Total Suspended Solids	15.3	mg/L

Detectable Results Summary

Client Sample ID: **SW6**
 Lab Sample ID: 1192631006
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	1.0	col/100mL
Total Coliform	186	MPN/100mL
Ammonia-N	0.125	mg/L
Total Kjeldahl Nitrogen	0.448J	mg/L

Client Sample ID: **SW7**
 Lab Sample ID: 1192631007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	4	MPN/100mL
Fecal Coliform	11	col/100mL
Total Coliform	214	MPN/100mL
Ammonia-N	0.0500J	mg/L
Total Kjeldahl Nitrogen	0.435J	mg/L
Total Suspended Solids	0.918J	mg/L

Client Sample ID: **SW8**
 Lab Sample ID: 1192631008
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	142	MPN/100mL
Ammonia-N	0.0465J	mg/L
Total Kjeldahl Nitrogen	0.673J	mg/L
Total Phosphorus	0.0574	mg/L
Total Suspended Solids	5.69	mg/L

Client Sample ID: **SW9**
 Lab Sample ID: 1192631009
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	10	MPN/100mL
Fecal Coliform	1.0	col/100mL
Total Coliform	430	MPN/100mL
Ammonia-N	0.0535J	mg/L
Total Kjeldahl Nitrogen	0.325J	mg/L
Total Suspended Solids	2.06	mg/L

Client Sample ID: **SW10**
 Lab Sample ID: 1192631010
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	1	MPN/100mL
Total Coliform	38	MPN/100mL
Ammonia-N	0.0522J	mg/L
Total Kjeldahl Nitrogen	0.513J	mg/L
Total Phosphorus	0.00770J	mg/L
Total Suspended Solids	0.396J	mg/L



Results of SW1

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631001
Lab Project ID: 1192631

Collection Date: 05/28/19 10:32
Received Date: 05/28/19 16:08
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	4.61	2.00	2.00	mg/L	1		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631001-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>
Fecal Coliform	1.0	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631001-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		05/28/19 18:17
Total Coliform	260	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631001-B



Results of SW1

Client Sample ID: SW1
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631001
Lab Project ID: 1192631

Collection Date: 05/28/19 10:32
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 12:25
Container ID: 1192631001-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631001-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:13
Container ID: 1192631001-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631001
 Lab Project ID: 1192631

Collection Date: 05/28/19 10:32
 Received Date: 05/28/19 16:08
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:03
 Container ID: 1192631001-D

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0610	0.0200	0.00500	mg/L	1		06/07/19 16:21

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/07/19 16:21
 Container ID: 1192631001-D

Prep Batch: WXX12856
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/07/19 14:18
 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: 1192631002
Lab Project ID: 1192631

Collection Date: 05/28/19 10:58
Received Date: 05/28/19 16:08
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	3.70	2.00	2.00	mg/L	1		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631002-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>
Fecal Coliform	3.0	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631002-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	5	1	1	MPN/100r	1		05/28/19 18:17
Total Coliform	> 2420	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631002-B



Results of SW2

Client Sample ID: SW2
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631002
Lab Project ID: 1192631

Collection Date: 05/28/19 10:58
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 12:44
Container ID: 1192631002-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631002-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:15
Container ID: 1192631002-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631002
 Lab Project ID: 1192631

Collection Date: 05/28/19 10:58
 Received Date: 05/28/19 16:08
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:04
 Container ID: 1192631002-D

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0771	0.0200	0.00500	mg/L	1		06/07/19 16:24

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/07/19 16:24
 Container ID: 1192631002-D

Prep Batch: WXX12856
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/07/19 14:18
 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: 1192631003
Lab Project ID: 1192631

Collection Date: 05/28/19 11:16
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631003-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>
Fecal Coliform	1.0	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631003-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		05/28/19 18:17
Total Coliform	261	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631003-B



Results of SW3

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631003
Lab Project ID: 1192631

Collection Date: 05/28/19 11:16
Received Date: 05/28/19 16:08
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		05/29/19 13:03
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/29/19 13:03
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/29/19 13:03

Batch Information

Analytical Batch: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 13:03
Container ID: 1192631003-C

Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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	0.510 U	1.02	0.316	mg/L	1		05/29/19 16:03

Batch Information

Analytical Batch: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631003-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	0.444 J	1.00	0.310	mg/L	1		06/11/19 17:16

Batch Information

Analytical Batch: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:16
Container ID: 1192631003-D

Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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		06/10/19 11:06



Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631003
Lab Project ID: 1192631

Collection Date: 05/28/19 11:16
Received Date: 05/28/19 16:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:06
Container ID: 1192631003-D

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.0218	0.0200	0.00500	mg/L	1		06/07/19 16:25

Batch Information

Analytical Batch: WDA4569
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/07/19 16:25
Container ID: 1192631003-D

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/07/19 14:18
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: 1192631004
Lab Project ID: 1192631

Collection Date: 05/28/19 12:54
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631004-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>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631004-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		05/28/19 18:17
Total Coliform	649	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631004-B



Results of SW4

Client Sample ID: SW4
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631004
Lab Project ID: 1192631

Collection Date: 05/28/19 12:54
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 13:22
Container ID: 1192631004-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631004-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:17
Container ID: 1192631004-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631004
Lab Project ID: 1192631

Collection Date: 05/28/19 12:54
Received Date: 05/28/19 16:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:08
Container ID: 1192631004-D

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.00580 J	0.0200	0.00500	mg/L	1		06/07/19 16:26

Batch Information

Analytical Batch: WDA4569
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/07/19 16:26
Container ID: 1192631004-D

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/07/19 14:18
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: 1192631005
Lab Project ID: 1192631

Collection Date: 05/28/19 13:11
Received Date: 05/28/19 16:08
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	2.24	2.00	2.00	mg/L	1		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631005-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>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631005-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		05/28/19 18:17
Total Coliform	308	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631005-B



Results of SW5

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631005
Lab Project ID: 1192631

Collection Date: 05/28/19 13:11
Received Date: 05/28/19 16:08
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		05/29/19 13:41
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/29/19 13:41
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/29/19 13:41

Batch Information

Analytical Batch: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 13:41
Container ID: 1192631005-C

Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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	15.3	0.990	0.307	mg/L	1		05/29/19 16:03

Batch Information

Analytical Batch: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631005-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	0.509 J	1.00	0.310	mg/L	1		06/11/19 17:21

Batch Information

Analytical Batch: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:21
Container ID: 1192631005-D

Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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	0.0371 J	0.100	0.0310	mg/L	1		06/10/19 11:13



Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631005
Lab Project ID: 1192631

Collection Date: 05/28/19 13:11
Received Date: 05/28/19 16:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:13
Container ID: 1192631005-D

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.00710 J	0.0200	0.00500	mg/L	1		06/07/19 16:27

Batch Information

Analytical Batch: WDA4569
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/07/19 16:27
Container ID: 1192631005-D

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/07/19 14:18
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: 1192631006
Lab Project ID: 1192631

Collection Date: 05/28/19 12:37
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631006-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>
Fecal Coliform	1.0	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631006-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		05/28/19 18:17
Total Coliform	186	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631006-B



Results of SW6

Client Sample ID: SW6
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631006
Lab Project ID: 1192631

Collection Date: 05/28/19 12:37
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 14:01
Container ID: 1192631006-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631006-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:23
Container ID: 1192631006-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631006
Lab Project ID: 1192631

Collection Date: 05/28/19 12:37
Received Date: 05/28/19 16:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:14
Container ID: 1192631006-D

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.0100 U	0.0200	0.00500	mg/L	1		06/07/19 16:30

Batch Information

Analytical Batch: WDA4569
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/07/19 16:30
Container ID: 1192631006-D

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/07/19 14:18
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: 1192631007
Lab Project ID: 1192631

Collection Date: 05/28/19 12:20
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631007-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>
Fecal Coliform	11	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631007-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	4	1	1	MPN/100r	1		05/28/19 18:17
Total Coliform	214	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631007-B



Results of SW7

Client Sample ID: SW7
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631007
Lab Project ID: 1192631

Collection Date: 05/28/19 12:20
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 14:22
Container ID: 1192631007-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631007-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:24
Container ID: 1192631007-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631007
 Lab Project ID: 1192631

Collection Date: 05/28/19 12:20
 Received Date: 05/28/19 16:08
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:16
 Container ID: 1192631007-D

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0100 U	0.0200	0.00500	mg/L	1		06/07/19 16:31

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/07/19 16:31
 Container ID: 1192631007-D

Prep Batch: WXX12856
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/07/19 14:18
 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: 1192631008
Lab Project ID: 1192631

Collection Date: 05/28/19 14:20
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631008-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>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631008-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		05/28/19 18:17
Total Coliform	142	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631008-B



Results of SW8

Client Sample ID: SW8
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631008
Lab Project ID: 1192631

Collection Date: 05/28/19 14:20
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 15:38
Container ID: 1192631008-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631008-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:25
Container ID: 1192631008-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631008
Lab Project ID: 1192631

Collection Date: 05/28/19 14:20
Received Date: 05/28/19 16:08
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:18
Container ID: 1192631008-D

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.0574	0.0200	0.00500	mg/L	1		06/07/19 16:32

Batch Information

Analytical Batch: WDA4569
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/07/19 16:32
Container ID: 1192631008-D

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/07/19 14:18
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: 1192631009
Lab Project ID: 1192631

Collection Date: 05/28/19 14:06
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631009-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>
Fecal Coliform	1.0	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631009-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	10	10	MPN/100n	10		05/28/19 18:17
Total Coliform	430	10	10	MPN/100n	10		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631009-B



Results of SW9

Client Sample ID: SW9
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631009
Lab Project ID: 1192631

Collection Date: 05/28/19 14:06
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 15:57
Container ID: 1192631009-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631009-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:27
Container ID: 1192631009-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631009
 Lab Project ID: 1192631

Collection Date: 05/28/19 14:06
 Received Date: 05/28/19 16:08
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:19
 Container ID: 1192631009-D

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0100 U	0.0200	0.00500	mg/L	1		06/07/19 16:33

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/07/19 16:33
 Container ID: 1192631009-D

Prep Batch: WXX12856
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/07/19 14:18
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of SW10

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192631010
Lab Project ID: 1192631

Collection Date: 05/28/19 13:52
Received Date: 05/28/19 16:08
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		05/29/19 09:15

Batch Information

Analytical Batch: BOD6321
Analytical Method: SM21 5210B
Analyst: ACF
Analytical Date/Time: 05/29/19 09:15
Container ID: 1192631010-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>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		05/28/19 17:06

Batch Information

Analytical Batch: BTF17365
Analytical Method: SM21 9222D
Analyst: ACF
Analytical Date/Time: 05/28/19 17:06
Container ID: 1192631010-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		05/28/19 18:17
Total Coliform	38	1	1	MPN/100r	1		05/28/19 18:17

Batch Information

Analytical Batch: BTF17367
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/28/19 18:17
Container ID: 1192631010-B



Results of SW10

Client Sample ID: SW10
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192631010
Lab Project ID: 1192631

Collection Date: 05/28/19 13:52
Received Date: 05/28/19 16:08
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/29/19 16:16
Container ID: 1192631010-C
Prep Batch: WXX12843
Prep Method: METHOD
Prep Date/Time: 05/29/19 10:00
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: STS6291
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 05/29/19 16:03
Container ID: 1192631010-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:28
Container ID: 1192631010-D
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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: 1192631010
 Lab Project ID: 1192631

Collection Date: 05/28/19 13:52
 Received Date: 05/28/19 16:08
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:21
 Container ID: 1192631010-D

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.00770 J	0.0200	0.00500	mg/L	1		06/07/19 16:33

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/07/19 16:33
 Container ID: 1192631010-D

Prep Batch: WXX12856
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/07/19 14:18
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1794266 [BOD/6321]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1509693

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: BOD6321

Analytical Method: SM21 5210B

Instrument:

Analyst: ACF

Analytical Date/Time: 5/29/2019 9:15:15AM

Print Date: 06/12/2019 8:55:24AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [BOD6321]

Blank Spike Lab ID: 1509694

Date Analyzed: 05/29/2019 09:15

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	211	107	(84.6-115.4

Batch Information

Analytical Batch: **BOD6321**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **ACF**

Print Date: 06/12/2019 8:55:25AM

Method Blank

Blank ID: MB for HBN 1794240 [BTF/17365]
Blank Lab ID: 1509646

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: BTF17365
Analytical Method: SM21 9222D
Instrument:
Analyst: ACF
Analytical Date/Time: 5/28/2019 5:06:00PM

Print Date: 06/12/2019 8:55:27AM

Method Blank

Blank ID: MB for HBN 1794247 [BTF/17367]
Blank Lab ID: 1509642

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: BTF17367
Analytical Method: SM21 9223B
Instrument:
Analyst: ACF
Analytical Date/Time: 5/28/2019 6:17:00PM

Print Date: 06/12/2019 8:55:29AM

Method Blank

Blank ID: MB for HBN 1794260 [STS/6289]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1509683

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: STS6291

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 5/29/2019 11:29:29AM

Print Date: 06/12/2019 8:55:31AM

Duplicate Sample Summary

Original Sample ID: 1192643002

Duplicate Sample ID: 1509684

QC for Samples:

Analysis Date: 05/29/2019 11:29

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	596	580	mg/L	2.70	(< 5)

Batch Information

Analytical Batch: STS6291

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 06/12/2019 8:55:31AM

Duplicate Sample Summary

Original Sample ID: 1192604002

Duplicate Sample ID: 1509689

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

Analysis Date: 05/29/2019 16:03

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	83.0	82.0	mg/L	1.20	(< 5)

Batch Information

Analytical Batch: STS6291

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 06/12/2019 8:55:31AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [STS6291]
 Blank Spike Lab ID: 1509687
 Date Analyzed: 05/29/2019 11:29

Spike Duplicate ID: LCSD for HBN 1192631 [STS6291]
 Spike Duplicate Lab ID: 1509688
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	25.3	101	25	24.7	99	(75-125)	2.40	(< 5)

Batch Information

Analytical Batch: **STS6291**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Print Date: 06/12/2019 8:55:32AM

Method Blank

Blank ID: MB for HBN 1794352 [WXX/12843]
 Blank Lab ID: 1510072

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: WIC5914
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 5/29/2019 11:47:34AM

Prep Batch: WXX12843
 Prep Method: METHOD
 Prep Date/Time: 5/29/2019 10:00:00AM
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

Print Date: 06/12/2019 8:55:34AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [WXX12843]
 Blank Spike Lab ID: 1510073
 Date Analyzed: 05/29/2019 12:06

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007,
 1192631008, 1192631009, 1192631010

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	5.18	104	(90-110)
Nitrite-N	5	5.31	106	(90-110)
Total Nitrate/Nitrite-N	10	10.5	105	(90-110)

Batch Information

Analytical Batch: **WIC5914**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12843**
 Prep Method: **METHOD**
 Prep Date/Time: **05/29/2019 10:00**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 1510075
 MS Sample ID: 1510076 MS
 MSD Sample ID: 1510077 MSD

Analysis Date: 05/29/2019 16:35
 Analysis Date: 05/29/2019 16:54
 Analysis Date: 05/29/2019 17:13
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	100	5.00	4.91	98	90-110	1.90	(< 15)
Nitrite-N	0.100U	5.00	4.8	96	5.00	4.83	97	90-110	0.44	(< 15)

Batch Information

Analytical Batch: WIC5914
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 5/29/2019 4:54:58PM

Prep Batch: WXX12843
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 5/29/2019 10:00:00AM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 06/12/2019 8:55:36AM



Method Blank

Blank ID: MB for HBN 1794789 [WXX/12856]
Blank Lab ID: 1512070

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: WDA4569
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/7/2019 4:18:36PM

Prep Batch: WXX12856
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/7/2019 2:18:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/12/2019 8:55:38AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [WXX12856]
 Blank Spike Lab ID: 1512071
 Date Analyzed: 06/07/2019 16:19

Spike Duplicate ID: LCSD for HBN 1192631 [WXX12856]
 Spike Duplicate Lab ID: 1512072
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	0.198	99	0.2	0.195	97	(75-125)	1.50	(< 25)

Batch Information

Analytical Batch: **WDA4569**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12856**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **06/07/2019 14:18**
 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: 1192631001
 MS Sample ID: 1512073 MS
 MSD Sample ID: 1512074 MSD

Analysis Date: 06/07/2019 16:21
 Analysis Date: 06/07/2019 16:22
 Analysis Date: 06/07/2019 16:23
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	0.0610	0.200	.26	100	0.200	0.258	98	75-125	0.97	(< 25)

Batch Information

Analytical Batch: WDA4569
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 6/7/2019 4:22:31PM

Prep Batch: WXX12856
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 6/7/2019 2:18:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 06/12/2019 8:55:39AM

Method Blank

Blank ID: MB for HBN 1794796 [WXX/12857]
Blank Lab ID: 1512101

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0314J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/10/2019 10:52:58AM

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 6/10/2019 9:30:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 06/12/2019 8:55:41AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [WXX12857]
 Blank Spike Lab ID: 1512102
 Date Analyzed: 06/10/2019 10:54

Spike Duplicate ID: LCSD for HBN 1192631 [WXX12857]
 Spike Duplicate Lab ID: 1512108
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	0.945	95	1	0.977	98	(75-125)	3.40	(< 25)

Batch Information

Analytical Batch: **WDA4570**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12857**
 Prep Method: **METHOD**
 Prep Date/Time: **06/10/2019 09:30**
 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: 1192659001
 MS Sample ID: 1512103 MS
 MSD Sample ID: 1512104 MSD

Analysis Date: 06/10/2019 10:58
 Analysis Date: 06/10/2019 10:59
 Analysis Date: 06/10/2019 11:01
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	.878	88	1.00	0.834	83	75-125	5.10	(< 25)

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 6/10/2019 10:59:42AM

Prep Batch: WXX12857
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 6/10/2019 9:30:00AM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Print Date: 06/12/2019 8:55:44AM

Method Blank

Blank ID: MB for HBN 1794839 [WXX/12859]
Blank Lab ID: 1512209

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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: WDA4571
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/11/2019 5:06:07PM

Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 6/10/2019 11:19:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/12/2019 8:55:45AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192631 [WXX12859]
 Blank Spike Lab ID: 1512210
 Date Analyzed: 06/11/2019 17:07

Spike Duplicate ID: LCSD for HBN 1192631 [WXX12859]
 Spike Duplicate Lab ID: 1512211
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	4.94	124	4	4.50	112	(75-125)	9.40	(< 25)

Batch Information

Analytical Batch: **WDA4571**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12859**
 Prep Method: **METHOD**
 Prep Date/Time: **06/10/2019 11:19**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 06/12/2019 8:55:47AM

Matrix Spike Summary

Original Sample ID: 1192659004
 MS Sample ID: 1512212 MS
 MSD Sample ID: 1512213 MSD

Analysis Date: 06/11/2019 17:10
 Analysis Date: 06/11/2019 17:11
 Analysis Date: 06/11/2019 17:12
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192631001, 1192631002, 1192631003, 1192631004, 1192631005, 1192631006, 1192631007, 1192631008, 1192631009, 1192631010

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	4.11	103	4.00	3.94	99	75-125	4.10	(< 25)

Batch Information

Analytical Batch: WDA4571
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 6/11/2019 5:11:22PM

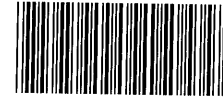
Prep Batch: WXX12859
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 6/10/2019 11:19:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 06/12/2019 8:55:48AM



SGS North America Inc.
CHAIN OF CUSTODY RECORD

1192631



www.us.sgs.com

CLIENT: Stantec				Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.				Page <u>1</u> of <u>1</u>						
CONTACT: Jake Alward			PHONE #: 343-5202		Section 3	Preservative								
PROJECT NAME: Wasilla WWTP		PROJECT/ PWSID/ PERMIT#:		# C O N T A I N E R S	Comp Grab MI (Multi-incremental)	Analysis*							NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS	
REPORTS TO:		E-MAIL: jake.alward@stantec.com				None	None	None	H2SO4	Na2SO4	Na2SO4	/		/
INVOICE TO: Stantec		QUOTE #: 20470045				BOD	TSS	Nitrate/Nitrite	Ammonia/TKN/ Tphos	Fecal Coliform	TC Quantitray (1X/10X)	/		/
		P.O. #: 20470045												
Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7	Section 8	Section 9	Section 10	Section 11	Section 12	Section 13		
RESERVED for lab use		SAMPLE IDENTIFICATION		DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE								
1 AF SW1		5/28/11		1032	Water	6	G							
2 AF SW2					1058									
3 AF SW3					1116									
4 AF SW4					1254									
5 AF SW5					1311									
6 AF SW6					1237									
7 AF SW7					1220									
8 AF SW8					1420									
9 AF SW9					1406									
10 AF SW10					1352									
Relinquished By: (1)		Date	Time	Received By:		Section 4		DOD Project? Yes No		Data Deliverable Requirements:				
Relinquished By: (2)		Date	Time	Received By:		Cooler ID:		Requested Turnaround Time and/or Special Instructions:						
Relinquished By: (3)		Date	Time	Received By:		Temp Blank °C: T. 3.5 DS1		Chain of Custody Seal: (Circle) INTACT BROKEN <u>ABSENT</u>						
Relinquished By: (4)		Date	Time	Received For Laboratory By:		or Ambient []		Delivery Method: Hand Delivery [] Commerical Delivery []						

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

T2: 4.5°C 030



SGS Workorder #:

1192631



1 1 9 2 6 3 1

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	
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 @ 3.5 °C Therm. ID: D51
	<input checked="" type="checkbox"/>	Cooler ID: 2 @ 4.5 °C Therm. ID: D30
		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?	<input checked="" type="checkbox"/>	
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>
1192631001-A	Na2S2O3 for Chlorine Redu	OK			
1192631001-B	Na2S2O3 for Chlorine Redu	OK			
1192631001-C	No Preservative Required	OK			
1192631001-D	H2SO4 to pH < 2	OK			
1192631001-E	No Preservative Required	OK			
1192631001-F	No Preservative Required	OK			
1192631002-A	Na2S2O3 for Chlorine Redu	OK			
1192631002-B	Na2S2O3 for Chlorine Redu	OK			
1192631002-C	No Preservative Required	OK			
1192631002-D	H2SO4 to pH < 2	OK			
1192631002-E	No Preservative Required	OK			
1192631002-F	No Preservative Required	OK			
1192631003-A	Na2S2O3 for Chlorine Redu	OK			
1192631003-B	Na2S2O3 for Chlorine Redu	OK			
1192631003-C	No Preservative Required	OK			
1192631003-D	H2SO4 to pH < 2	OK			
1192631003-E	No Preservative Required	OK			
1192631003-F	No Preservative Required	OK			
1192631004-A	Na2S2O3 for Chlorine Redu	OK			
1192631004-B	Na2S2O3 for Chlorine Redu	OK			
1192631004-C	No Preservative Required	OK			
1192631004-D	H2SO4 to pH < 2	OK			
1192631004-E	No Preservative Required	OK			
1192631004-F	No Preservative Required	OK			
1192631005-A	Na2S2O3 for Chlorine Redu	OK			
1192631005-B	Na2S2O3 for Chlorine Redu	OK			
1192631005-C	No Preservative Required	OK			
1192631005-D	H2SO4 to pH < 2	OK			
1192631005-E	No Preservative Required	OK			
1192631005-F	No Preservative Required	OK			
1192631006-A	Na2S2O3 for Chlorine Redu	OK			
1192631006-B	Na2S2O3 for Chlorine Redu	OK			
1192631006-C	No Preservative Required	OK			
1192631006-D	H2SO4 to pH < 2	OK			
1192631006-E	No Preservative Required	OK			
1192631006-F	No Preservative Required	OK			
1192631007-A	Na2S2O3 for Chlorine Redu	OK			
1192631007-B	Na2S2O3 for Chlorine Redu	OK			
1192631007-C	No Preservative Required	OK			
1192631007-D	H2SO4 to pH < 2	OK			
1192631007-E	No Preservative Required	OK			
1192631007-F	No Preservative Required	OK			
1192631008-A	Na2S2O3 for Chlorine Redu	OK			
1192631008-B	Na2S2O3 for Chlorine Redu	OK			
1192631008-C	No Preservative Required	OK			
1192631008-D	H2SO4 to pH < 2	OK			
1192631008-E	No Preservative Required	OK			
1192631008-F	No Preservative Required	OK			

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1192631009-A	Na2S2O3 for Chlorine Redu	OK			
1192631009-B	Na2S2O3 for Chlorine Redu	OK			
1192631009-C	No Preservative Required	OK			
1192631009-D	H2SO4 to pH < 2	OK			
1192631009-E	No Preservative Required	OK			
1192631009-F	No Preservative Required	OK			
1192631010-A	Na2S2O3 for Chlorine Redu	OK			
1192631010-B	Na2S2O3 for Chlorine Redu	OK			
1192631010-C	No Preservative Required	OK			
1192631010-D	H2SO4 to pH < 2	OK			
1192631010-E	No Preservative Required	OK			
1192631010-F	No Preservative Required	OK			

Container Condition Glossary

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

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: **1192659**

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: **1192659**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1192398001(1510080MS) (1510081) MS

300.0 - Anions - MS recovery for 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: 06/12/2019 3:19:52PM

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). 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	1192659001	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW12	1192659002	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW13	1192659003	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW14	1192659004	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW15	1192659005	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW16	1192659006	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW17	1192659007	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
SW18	1192659008	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
Shaw	1192659009	05/29/2019	05/29/2019	Water (Surface, Eff., Ground)
Dup 2	1192659010	05/29/2019	05/29/2019	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: 06/12/2019 3:19:54PM

Detectable Results Summary

Client Sample ID: **SW11**
 Lab Sample ID: 1192659001
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	214	MPN/100mL
Total Phosphorus	0.0643	mg/L
Total Suspended Solids	0.588J	mg/L

Client Sample ID: **SW12**
 Lab Sample ID: 1192659002
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	1.0	col/100mL
Total Coliform	548	MPN/100mL
Ammonia-N	0.0482J	mg/L
Total Phosphorus	0.00690J	mg/L

Client Sample ID: **SW13**
 Lab Sample ID: 1192659003
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	84	MPN/100mL
Ammonia-N	0.0723J	mg/L
Total Kjeldahl Nitrogen	0.429J	mg/L
Total Suspended Solids	1.80	mg/L

Client Sample ID: **SW14**
 Lab Sample ID: 1192659004
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	84	MPN/100mL
Ammonia-N	0.0885J	mg/L
Total Phosphorus	0.0541	mg/L
Total Suspended Solids	7.47	mg/L

Client Sample ID: **SW15**
 Lab Sample ID: 1192659005
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	3	MPN/100mL
Total Coliform	1046	MPN/100mL
Ammonia-N	0.0748J	mg/L
Total Phosphorus	0.0235	mg/L
Total Suspended Solids	13.6	mg/L

Client Sample ID: **SW16**
 Lab Sample ID: 1192659006
Microbiology Laboratory
Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Total Coliform	38	MPN/100mL
Ammonia-N	0.169	mg/L
Total Kjeldahl Nitrogen	0.507J	mg/L
Total Phosphorus	0.0401	mg/L

Detectable Results Summary

Client Sample ID: **SW17**
 Lab Sample ID: 1192659007
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	1	MPN/100mL
Total Coliform	231	MPN/100mL
Ammonia-N	0.0796J	mg/L
Nitrate-N	1.16	mg/L
Total Kjeldahl Nitrogen	0.399J	mg/L
Total Nitrate/Nitrite-N	1.16	mg/L
Total Phosphorus	0.117	mg/L
Total Suspended Solids	4.46	mg/L

Client Sample ID: **SW18**
 Lab Sample ID: 1192659008
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.08	mg/L
E. Coli	8	MPN/100mL
Fecal Coliform	6.0	col/100mL
Total Coliform	276	MPN/100mL
Ammonia-N	2.22	mg/L
Nitrate-N	2.18	mg/L
Total Kjeldahl Nitrogen	3.25	mg/L
Total Nitrate/Nitrite-N	2.23	mg/L
Total Phosphorus	1.48	mg/L
Total Suspended Solids	10.2	mg/L

Client Sample ID: **Shaw**
 Lab Sample ID: 1192659009
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	1	MPN/100mL
Fecal Coliform	3.0	col/100mL
Total Coliform	387	MPN/100mL
Ammonia-N	0.0799J	mg/L
Total Kjeldahl Nitrogen	0.328J	mg/L
Total Phosphorus	0.0199J	mg/L

Client Sample ID: **Dup 2**
 Lab Sample ID: 1192659010
Microbiology Laboratory

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.23	mg/L
E. Coli	6	MPN/100mL
Fecal Coliform	3.0	col/100mL
Total Coliform	387	MPN/100mL
Ammonia-N	2.23	mg/L
Nitrate-N	2.19	mg/L
Total Kjeldahl Nitrogen	2.84	mg/L
Total Nitrate/Nitrite-N	2.23	mg/L
Total Phosphorus	1.47	mg/L
Total Suspended Solids	10.1	mg/L



Results of SW11

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659001
Lab Project ID: 1192659

Collection Date: 05/29/19 10:00
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659001-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659001-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		05/29/19 17:41
Total Coliform	214	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659001-B



Results of SW11

Client Sample ID: SW11
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659001
Lab Project ID: 1192659

Collection Date: 05/29/19 10:00
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 00:53
Container ID: 1192659001-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659001-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:29
Container ID: 1192659001-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659001
Lab Project ID: 1192659

Collection Date: 05/29/19 10:00
Received Date: 05/29/19 16:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 10:58
Container ID: 1192659001-F

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.0643	0.0200	0.00500	mg/L	1		06/10/19 12:15

Batch Information

Analytical Batch: WDA4574
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/10/19 12:15
Container ID: 1192659001-F

Prep Batch: WXX12862
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/10/19 10:03
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW12

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659002
Lab Project ID: 1192659

Collection Date: 05/29/19 10:15
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659002-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	1.0	1.00	1.00	col/100mL	1		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659002-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		05/29/19 17:41
Total Coliform	548	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659002-B



Results of SW12

Client Sample ID: SW12
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659002
Lab Project ID: 1192659

Collection Date: 05/29/19 10:15
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 01:12
Container ID: 1192659002-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659002-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:31
Container ID: 1192659002-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659002
Lab Project ID: 1192659

Collection Date: 05/29/19 10:15
Received Date: 05/29/19 16:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 06/10/19 11:23
Container ID: 1192659002-F

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 06/10/19 09:30
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	0.00690 J	0.0200	0.00500	mg/L	1		06/10/19 12:18

Batch Information

Analytical Batch: WDA4574
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 06/10/19 12:18
Container ID: 1192659002-F

Prep Batch: WXX12862
Prep Method: SM21 4500P-B,E
Prep Date/Time: 06/10/19 10:03
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: 1192659003
Lab Project ID: 1192659

Collection Date: 05/29/19 10:32
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659003-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659003-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		05/29/19 17:41
Total Coliform	84	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659003-B



Results of SW13

Client Sample ID: SW13
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659003
Lab Project ID: 1192659

Collection Date: 05/29/19 10:32
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 01:31
Container ID: 1192659003-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659003-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:32
Container ID: 1192659003-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 SW13

Client Sample ID: **SW13**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659003
 Lab Project ID: 1192659

Collection Date: 05/29/19 10:32
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:24
 Container ID: 1192659003-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0100 U	0.0200	0.00500	mg/L	1		06/10/19 12:19

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:19
 Container ID: 1192659003-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 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: 1192659004
Lab Project ID: 1192659

Collection Date: 05/29/19 11:32
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659004-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659004-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		05/29/19 17:41
Total Coliform	84	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659004-B



Results of SW14

Client Sample ID: **SW14**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659004
 Lab Project ID: 1192659

Collection Date: 05/29/19 11:32
 Received Date: 05/29/19 16:15
 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		05/30/19 01:50
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/30/19 01:50
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/30/19 01:50

Batch Information

Analytical Batch: WIC5914
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 05/30/19 01:50
 Container ID: 1192659004-E

Prep Batch: WXX12844
 Prep Method: METHOD
 Prep Date/Time: 05/29/19 17:00
 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	7.47	1.01	0.313	mg/L	1		06/04/19 18:06

Batch Information

Analytical Batch: STS6298
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 06/04/19 18:06
 Container ID: 1192659004-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	0.500 U	1.00	0.310	mg/L	1		06/11/19 17:10

Batch Information

Analytical Batch: WDA4571
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 06/11/19 17:10
 Container ID: 1192659004-F

Prep Batch: WXX12859
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 11:19
 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	0.0885 J	0.100	0.0310	mg/L	1		06/10/19 11:26

Results of SW14

Client Sample ID: **SW14**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659004
 Lab Project ID: 1192659

Collection Date: 05/29/19 11:32
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:26
 Container ID: 1192659004-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0541	0.0200	0.00500	mg/L	1		06/10/19 12:20

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:20
 Container ID: 1192659004-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 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: 1192659005
Lab Project ID: 1192659

Collection Date: 05/29/19 11:11
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659005-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659005-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		05/29/19 17:41
Total Coliform	1046	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659005-B



Results of SW15

Client Sample ID: SW15
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659005
Lab Project ID: 1192659

Collection Date: 05/29/19 11:11
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 02:09
Container ID: 1192659005-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659005-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:33
Container ID: 1192659005-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 SW15

Client Sample ID: **SW15**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659005
 Lab Project ID: 1192659

Collection Date: 05/29/19 11:11
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:28
 Container ID: 1192659005-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0235	0.0200	0.00500	mg/L	1		06/10/19 12:22

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:22
 Container ID: 1192659005-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 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: 1192659006
Lab Project ID: 1192659

Collection Date: 05/29/19 10:55
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659006-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659006-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		05/29/19 17:41
Total Coliform	38	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659006-B



Results of SW16

Client Sample ID: SW16
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659006
Lab Project ID: 1192659

Collection Date: 05/29/19 10:55
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 03:06
Container ID: 1192659006-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659006-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:37
Container ID: 1192659006-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 SW16

Client Sample ID: **SW16**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659006
 Lab Project ID: 1192659

Collection Date: 05/29/19 10:55
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:33
 Container ID: 1192659006-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0401	0.0200	0.00500	mg/L	1		06/10/19 12:23

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:23
 Container ID: 1192659006-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 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: 1192659007
Lab Project ID: 1192659

Collection Date: 05/29/19 13:11
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659007-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		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659007-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		05/29/19 17:41
Total Coliform	231	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659007-B



Results of SW17

Client Sample ID: SW17
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659007
Lab Project ID: 1192659

Collection Date: 05/29/19 13:11
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 03:25
Container ID: 1192659007-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659007-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:38
Container ID: 1192659007-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 SW17

Client Sample ID: **SW17**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659007
 Lab Project ID: 1192659

Collection Date: 05/29/19 13:11
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:34
 Container ID: 1192659007-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.117	0.0200	0.00500	mg/L	1		06/10/19 12:24

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:24
 Container ID: 1192659007-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 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: 1192659008
Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
Received Date: 05/29/19 16:15
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	7.08	2.00	2.00	mg/L	1		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659008-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	6.0	1.00	1.00	col/100mL	1		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659008-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	8	1	1	MPN/100r	1		05/29/19 17:41
Total Coliform	276	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659008-B



Results of SW18

Client Sample ID: SW18
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659008
Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 03:44
Container ID: 1192659008-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659008-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:39
Container ID: 1192659008-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 SW18

Client Sample ID: **SW18**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659008
 Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:36
 Container ID: 1192659008-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	1.48	0.200	0.0500	mg/L	1		06/10/19 13:59

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 13:59
 Container ID: 1192659008-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 Prep Initial Wt./Vol.: 2.5 mL
 Prep Extract Vol: 25 mL



Results of Shaw

Client Sample ID: **Shaw**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659009
Lab Project ID: 1192659

Collection Date: 05/29/19 12:20
Received Date: 05/29/19 16:15
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		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659009-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	3.0	1.00	1.00	col/100mL	1		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659009-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		05/29/19 17:41
Total Coliform	387	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659009-B



Results of Shaw

Client Sample ID: **Shaw**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659009
 Lab Project ID: 1192659

Collection Date: 05/29/19 12:20
 Received Date: 05/29/19 16:15
 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		05/30/19 04:03
Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/30/19 04:03
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0500	mg/L	1		05/30/19 04:03

Batch Information

Analytical Batch: WIC5914
 Analytical Method: EPA 300.0
 Analyst: DMM
 Analytical Date/Time: 05/30/19 04:03
 Container ID: 1192659009-E

Prep Batch: WXX12844
 Prep Method: METHOD
 Prep Date/Time: 05/29/19 17:00
 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	0.490 U	0.980	0.304	mg/L	1		06/04/19 18:06

Batch Information

Analytical Batch: STS6298
 Analytical Method: SM21 2540D
 Analyst: EWW
 Analytical Date/Time: 06/04/19 18:06
 Container ID: 1192659009-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	0.328 J	1.00	0.310	mg/L	1		06/11/19 17:41

Batch Information

Analytical Batch: WDA4571
 Analytical Method: SM21 4500-N D
 Analyst: DMM
 Analytical Date/Time: 06/11/19 17:41
 Container ID: 1192659009-F

Prep Batch: WXX12859
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 11:19
 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	0.0799 J	0.100	0.0310	mg/L	1		06/10/19 11:38

Results of Shaw

Client Sample ID: **Shaw**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659009
 Lab Project ID: 1192659

Collection Date: 05/29/19 12:20
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:38
 Container ID: 1192659009-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	0.0199 J	0.0200	0.00500	mg/L	1		06/10/19 12:26

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 12:26
 Container ID: 1192659009-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 Prep Initial Wt./Vol.: 25 mL
 Prep Extract Vol: 25 mL



Results of Dup 2

Client Sample ID: **Dup 2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1192659010
Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
Received Date: 05/29/19 16:15
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	7.23	2.00	2.00	mg/L	1		05/30/19 11:34

Batch Information

Analytical Batch: BOD6324
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 05/30/19 11:34
Container ID: 1192659010-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	3.0	1.00	1.00	col/100mL	1		05/29/19 17:28

Batch Information

Analytical Batch: BTF17370
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 05/29/19 17:28
Container ID: 1192659010-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	6	1	1	MPN/100r	1		05/29/19 17:41
Total Coliform	387	1	1	MPN/100r	1		05/29/19 17:41

Batch Information

Analytical Batch: BTF17372
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 05/29/19 17:41
Container ID: 1192659010-B



Results of Dup 2

Client Sample ID: Dup 2
Client Project ID: Wasilla WWTP
Lab Sample ID: 1192659010
Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
Received Date: 05/29/19 16:15
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: WIC5914
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 05/30/19 04:22
Container ID: 1192659010-E
Prep Batch: WXX12844
Prep Method: METHOD
Prep Date/Time: 05/29/19 17:00
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: STS6298
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 06/04/19 18:06
Container ID: 1192659010-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: WDA4571
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 06/11/19 17:42
Container ID: 1192659010-F
Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 06/10/19 11:19
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 Dup 2

Client Sample ID: **Dup 2**
 Client Project ID: **Wasilla WWTP**
 Lab Sample ID: 1192659010
 Lab Project ID: 1192659

Collection Date: 05/29/19 13:35
 Received Date: 05/29/19 16:15
 Matrix: Water (Surface, Eff., Ground)
 Solids (%):
 Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Analyst: DMM
 Analytical Date/Time: 06/10/19 11:39
 Container ID: 1192659010-F

Prep Batch: WXX12857
 Prep Method: METHOD
 Prep Date/Time: 06/10/19 09:30
 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	1.47	0.200	0.0500	mg/L	1		06/10/19 14:00

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Analyst: DMM
 Analytical Date/Time: 06/10/19 14:00
 Container ID: 1192659010-F

Prep Batch: WXX12862
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 06/10/19 10:03
 Prep Initial Wt./Vol.: 2.5 mL
 Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1794362 [BOD/6324]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1510137

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: BOD6324

Analytical Method: SM21 5210B

Instrument:

Analyst: A.L

Analytical Date/Time: 5/30/2019 11:34:53AM

Print Date: 06/12/2019 3:20:00PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [BOD6324]

Blank Spike Lab ID: 1510138

Date Analyzed: 05/30/2019 11:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	198	100	(84.6-115.4

Batch Information

Analytical Batch: **BOD6324**
 Analytical Method: **SM21 5210B**
 Instrument:
 Analyst: **A.L**

Print Date: 06/12/2019 3:20:01PM



Method Blank

Blank ID: MB for HBN 1794310 [BTF/17370]
Blank Lab ID: 1509890

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: BTF17370
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 5/29/2019 5:28:20PM

Print Date: 06/12/2019 3:20:03PM



Method Blank

Blank ID: MB for HBN 1794312 [BTF/17372]
Blank Lab ID: 1509893

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: BTF17372
Analytical Method: SM21 9223B
Instrument:
Analyst: ACF
Analytical Date/Time: 5/29/2019 5:41:00PM

Print Date: 06/12/2019 3:20:05PM

Method Blank

Blank ID: MB for HBN 1794495 [STS/6298]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1510785

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: STS6298

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 6/4/2019 6:06:52PM

Print Date: 06/12/2019 3:20:07PM

Duplicate Sample Summary

Original Sample ID: 1510984
 Duplicate Sample ID: 1510788

Analysis Date: 06/04/2019 18:06
 Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008,
 1192659009, 1192659010

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	13800	14230	mg/L	3.00	(< 5)

Batch Information

Analytical Batch: STS6298
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Print Date: 06/12/2019 3:20:08PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [STS6298]
 Blank Spike Lab ID: 1510786
 Date Analyzed: 06/04/2019 18:06

Spike Duplicate ID: LCSD for HBN 1192659 [STS6298]
 Spike Duplicate Lab ID: 1510787
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	24.0	96	25	23.4	94	(75-125)	2.50	(< 5)

Batch Information

Analytical Batch: **STS6298**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Print Date: 06/12/2019 3:20:09PM

Method Blank

Blank ID: MB for HBN 1794354 [WXX/12844]
 Blank Lab ID: 1510078

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: WIC5914
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 5/30/2019 12:15:38AM

Prep Batch: WXX12844
 Prep Method: METHOD
 Prep Date/Time: 5/29/2019 5:00:00PM
 Prep Initial Wt./Vol.: 10 mL
 Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [WXX12844]
 Blank Spike Lab ID: 1510079
 Date Analyzed: 05/30/2019 00:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007,
 1192659008, 1192659009, 1192659010

Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	5.11	102	(90-110)
Nitrite-N	5	5.25	105	(90-110)
Total Nitrate/Nitrite-N	10	10.4	104	(90-110)

Batch Information

Analytical Batch: **WIC5914**
 Analytical Method: **EPA 300.0**
 Instrument: **930 Metrohm compact IC flex**
 Analyst: **DMM**

Prep Batch: **WXX12844**
 Prep Method: **METHOD**
 Prep Date/Time: **05/29/2019 17:00**
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
 Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 1510080
 MS Sample ID: 1510081 MS
 MSD Sample ID: 1510082 MSD

Analysis Date: 05/30/2019 4:41
 Analysis Date: 05/30/2019 5:00
 Analysis Date: 05/30/2019 5:19
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	4.47	89 *	5.00	4.55	91	90-110	1.70	(< 15)
Nitrite-N	0.100U	5.00	4.85	97	5.00	4.94	99	90-110	1.90	(< 15)

Batch Information

Analytical Batch: WIC5914
 Analytical Method: EPA 300.0
 Instrument: 930 Metrohm compact IC flex
 Analyst: DMM
 Analytical Date/Time: 5/30/2019 5:00:57AM

Prep Batch: WXX12844
 Prep Method: EPA 300.0 Extraction Waters/Liquids
 Prep Date/Time: 5/29/2019 5:00:00PM
 Prep Initial Wt./Vol.: 10.00mL
 Prep Extract Vol: 10.00mL

Print Date: 06/12/2019 3:20:12PM

Method Blank

Blank ID: MB for HBN 1794796 [WXX/12857]
Blank Lab ID: 1512101

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0314J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4570
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/10/2019 10:52:58AM

Prep Batch: WXX12857
Prep Method: METHOD
Prep Date/Time: 6/10/2019 9:30:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 06/12/2019 3:20:14PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [WXX12857]
 Blank Spike Lab ID: 1512102
 Date Analyzed: 06/10/2019 10:54

Spike Duplicate ID: LCSD for HBN 1192659 [WXX12857]
 Spike Duplicate Lab ID: 1512108
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	0.945	95	1	0.977	98	(75-125)	3.40	(< 25)

Batch Information

Analytical Batch: **WDA4570**
 Analytical Method: **SM21 4500-NH3 G**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12857**
 Prep Method: **METHOD**
 Prep Date/Time: **06/10/2019 09:30**
 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: 1192659001
 MS Sample ID: 1512103 MS
 MSD Sample ID: 1512104 MSD

Analysis Date: 06/10/2019 10:58
 Analysis Date: 06/10/2019 10:59
 Analysis Date: 06/10/2019 11:01
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	.878	88	1.00	0.834	83	75-125	5.10	(< 25)

Batch Information

Analytical Batch: WDA4570
 Analytical Method: SM21 4500-NH3 G
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 6/10/2019 10:59:42AM

Prep Batch: WXX12857
 Prep Method: Ammonia by SM21 4500F prep (W)
 Prep Date/Time: 6/10/2019 9:30:00AM
 Prep Initial Wt./Vol.: 6.00mL
 Prep Extract Vol: 6.00mL

Print Date: 06/12/2019 3:20:16PM



Method Blank

Blank ID: MB for HBN 1794839 [WXX/12859]
Blank Lab ID: 1512209

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: WDA4571
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/11/2019 5:06:07PM

Prep Batch: WXX12859
Prep Method: METHOD
Prep Date/Time: 6/10/2019 11:19:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/12/2019 3:20:17PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [WXX12859]
 Blank Spike Lab ID: 1512210
 Date Analyzed: 06/11/2019 17:07

Spike Duplicate ID: LCSD for HBN 1192659 [WXX12859]
 Spike Duplicate Lab ID: 1512211
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	4.94	124	4	4.50	112	(75-125)	9.40	(< 25)

Batch Information

Analytical Batch: **WDA4571**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12859**
 Prep Method: **METHOD**
 Prep Date/Time: **06/10/2019 11:19**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 06/12/2019 3:20:18PM



Matrix Spike Summary

Original Sample ID: 1192659004
MS Sample ID: 1512212 MS
MSD Sample ID: 1512213 MSD

Analysis Date: 06/11/2019 17:10
Analysis Date: 06/11/2019 17:11
Analysis Date: 06/11/2019 17:12
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	4.11	103	4.00	3.94	99	75-125	4.10	(< 25)

Batch Information

Analytical Batch: WDA4571
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/11/2019 5:11:22PM

Prep Batch: WXX12859
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 6/10/2019 11:19:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/12/2019 3:20:19PM

Method Blank

Blank ID: MB for HBN 1794858 [WXX/12862]
Blank Lab ID: 1512305

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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: WDA4574
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 6/10/2019 12:11:37PM

Prep Batch: WXX12862
Prep Method: SM21 4500P-B,E
Prep Date/Time: 6/10/2019 10:03:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/12/2019 3:20:20PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192659 [WXX12862]
 Blank Spike Lab ID: 1512306
 Date Analyzed: 06/10/2019 12:12

Spike Duplicate ID: LCSD for HBN 1192659 [WXX12862]
 Spike Duplicate Lab ID: 1512307
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	0.204	102	0.2	0.193	97	(75-125)	5.30	(< 25)

Batch Information

Analytical Batch: **WDA4574**
 Analytical Method: **SM21 4500P-B,E**
 Instrument: **Discrete Analyzer 2**
 Analyst: **DMM**

Prep Batch: **WXX12862**
 Prep Method: **SM21 4500P-B,E**
 Prep Date/Time: **06/10/2019 10:03**
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 06/12/2019 3:20:21PM

Matrix Spike Summary

Original Sample ID: 1192659001
 MS Sample ID: 1512308 MS
 MSD Sample ID: 1512309 MSD

Analysis Date: 06/10/2019 12:15
 Analysis Date: 06/10/2019 12:16
 Analysis Date: 06/10/2019 12:17
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192659001, 1192659002, 1192659003, 1192659004, 1192659005, 1192659006, 1192659007, 1192659008, 1192659009, 1192659010

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	0.0643	0.200	.263	99	0.200	0.263	99	75-125	0.19	(< 25)

Batch Information

Analytical Batch: WDA4574
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: DMM
 Analytical Date/Time: 6/10/2019 12:16:27PM

Prep Batch: WXX12862
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 6/10/2019 10:03:00AM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 06/12/2019 3:20:22PM



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1192659



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CLIENT: Stantec		Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.						Page 1 of 1				
CONTACT: Jake Alward		PHONE #: 343 5202		Section 3		Preservative						
Section 1	PROJECT NAME: Wasilla WWTP	PROJECT/ PWSID/ PERMIT#:		# CONTAINERS	Comp Grab MI (Multi-incremental)	Analysis*						NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
	REPORTS TO:	E-MAIL: jake.alward@stantec.com				None	None	None	H2SO4	Na2SO4	Na2SO4	
	INVOICE TO: Stantec	QUOTE #: P.O. #: 20470045				BOD	TSS	Nitrate/Nitrite	Ammonia/TKN Tphos	Fecal Coliform	TC Quantitray (1X/10X)	
	REMARKS/LOC ID											
Section 2	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX MATRIX CODE							
		1A-F SW11	5/29/19	1000	Water	6	G					
		2A-F SW12		1015								
		3A-F SW13		1032								
		4A-F SW14		1132								
		5A-F SW15		1111								
		6A-F SW16		1055								
		7A-F SW17		1311								
		8A-F SW18		1335								
		9A-F SW19		1220								
	10A-F SW20		1335									
Section 5	Relinquished By: (1)		Date	Time	Received By:		Section 4 DOD Project? Yes No		Data Deliverable Requirements:			
	Relinquished By: (2)		Date	Time	Received By:		Cooler ID:		Requested Turnaround Time and/or Special Instructions:			
	Relinquished By: (3)		Date	Time	Received By:		Temp Blank °C:		Chain of Custody Seal: (Circle)			
	Relinquished By: (4)		Date	Time	Received For Laboratory By:		or Ambient []		INTACT BROKEN ABSENT			
Delivery Method: Hand Delivery [] Commerical Delivery []												

4/16-3.4
D51
4/16-5.1 D 30
2/16-2.5 D 2051

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



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>
1192659001-A	Na2S2O3 for Chlorine Redu	OK	1192659009-C	No Preservative Required	OK
1192659001-B	Na2S2O3 for Chlorine Redu	OK	1192659009-D	No Preservative Required	OK
1192659001-C	No Preservative Required	OK	1192659009-E	No Preservative Required	OK
1192659001-D	No Preservative Required	OK	1192659009-F	H2SO4 to pH < 2	OK
1192659001-E	No Preservative Required	OK	1192659010-A	Na2S2O3 for Chlorine Redu	OK
1192659001-F	H2SO4 to pH < 2	OK	1192659010-B	Na2S2O3 for Chlorine Redu	OK
1192659002-A	Na2S2O3 for Chlorine Redu	OK	1192659010-C	No Preservative Required	OK
1192659002-B	Na2S2O3 for Chlorine Redu	OK	1192659010-D	No Preservative Required	OK
1192659002-C	No Preservative Required	OK	1192659010-E	No Preservative Required	OK
1192659002-D	No Preservative Required	OK	1192659010-F	H2SO4 to pH < 2	OK
1192659002-E	No Preservative Required	OK			
1192659002-F	H2SO4 to pH < 2	OK			
1192659003-A	Na2S2O3 for Chlorine Redu	OK			
1192659003-B	Na2S2O3 for Chlorine Redu	OK			
1192659003-C	No Preservative Required	OK			
1192659003-D	No Preservative Required	OK			
1192659003-E	No Preservative Required	OK			
1192659003-F	H2SO4 to pH < 2	OK			
1192659004-A	Na2S2O3 for Chlorine Redu	OK			
1192659004-B	Na2S2O3 for Chlorine Redu	OK			
1192659004-C	No Preservative Required	OK			
1192659004-D	No Preservative Required	OK			
1192659004-E	No Preservative Required	OK			
1192659004-F	H2SO4 to pH < 2	OK			
1192659005-A	Na2S2O3 for Chlorine Redu	OK			
1192659005-B	Na2S2O3 for Chlorine Redu	OK			
1192659005-C	No Preservative Required	OK			
1192659005-D	No Preservative Required	OK			
1192659005-E	No Preservative Required	OK			
1192659005-F	H2SO4 to pH < 2	OK			
1192659006-A	Na2S2O3 for Chlorine Redu	OK			
1192659006-B	Na2S2O3 for Chlorine Redu	OK			
1192659006-C	No Preservative Required	OK			
1192659006-D	No Preservative Required	OK			
1192659006-E	No Preservative Required	OK			
1192659006-F	H2SO4 to pH < 2	OK			
1192659007-A	Na2S2O3 for Chlorine Redu	OK			
1192659007-B	Na2S2O3 for Chlorine Redu	OK			
1192659007-C	No Preservative Required	OK			
1192659007-D	No Preservative Required	OK			
1192659007-E	No Preservative Required	OK			
1192659007-F	H2SO4 to pH < 2	OK			
1192659008-A	Na2S2O3 for Chlorine Redu	OK			
1192659008-B	Na2S2O3 for Chlorine Redu	OK			
1192659008-C	No Preservative Required	OK			
1192659008-D	No Preservative Required	OK			
1192659008-E	No Preservative Required	OK			
1192659008-F	H2SO4 to pH < 2	OK			
1192659009-A	Na2S2O3 for Chlorine Redu	OK			
1192659009-B	Na2S2O3 for Chlorine Redu	OK			

Container Id

Preservative

Container
Condition

Container Id

Preservative

Container
Condition

Container Condition Glossary

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

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.